Chandigarh Power
Distribution Limited (CPDL)

PETITION FOR APPROVAL OF BUSINESS PLAN FOR MYT CONTROL PERIOD

FY 2025-26 TO FY 2029-30

Chandigarh Power Distribution Limited (CPDL)

Submitted to

Joint Electricity Regulatory Commission for the State of Goa and Union Territories

Gurugram, Haryana

JUNE 9, 2025

BEFORE THE JOINT ELECTRICITY REGULATORY COMMISSION

(FOR THE STATE OF GOA, & UNION TERRITORIES)

AT GURUGRAM

File No. _____

Petition No. _____

IN THE MATTER OF: Filing of Petition for approval of Business Plan for the Distribution and Retail Supply Business of Chandigarh Power Distribution Limited for the FY 2025-26 to FY 2029-30 in accordance with the Regulation 8 of the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2024 read with Section 62 and 64 of the Electricity Act, 2003.

IN THE MATTER OF: Chandigarh Power Distribution Limited (hereinafter referred as "CPDL or Petitioner"), having its office at SCO 33, 34 & 35, 4th Floor, City Centre, Sector- 34A, Chandigarh – 160022 **.... PETITIONER**

THE PETITIONER RESPECTFULLY SUBMITS AS UNDER:

Chandigarh Power Distribution Limited (CPDL), hereinafter referred to as the "Petitioner," is a deemed distribution licensee in terms of the Fifth Proviso to Section 14 read with Section 131 of the Electricity Act, 2003. Pursuant to the Share Purchase Agreement and the Chandigarh Electricity Reforms Transfer Scheme, 2025 dated 31.01.2025, CPDL took over the distribution and retail supply functions from the Electricity Wing of the Engineering Department, Chandigarh (EWEDC) with effect from 01.02.2025, upon which EWEDC ceased to carry out these functions. Additionally, the Administration of UT Chandigarh issued a Government Policy Direction on 07.02.2025 under Sections 108 and 109 of the Act to facilitate sectoral restructuring in public interest. Accordingly, CPDL is filing this Petition seeking approval of its Business Plan for FY 2025-26 to FY 2029-30 under Regulation 8 of the JERC (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2024, read with Sections 62 and 64 of the Electricity Act, 2003.

Date: 09-06-2025

Place: Chandigarh

Chandigarh Power Distribution Ltd. CPDL

For Chandigarh Power Distribution Limited

23465/2025/Legal Section

सत्यमेव जयते

INDIA NON JUDICIAL

Chandigarh Administration

e-Stamp

Certificate No.	:	IN-CH56500703806996X
Certificate Issued Date	:	06-Jun-2025 09:22 AM
Certificate Issued By	:	chashasvu
Account Reference	:	NEWIMPACC (GV)/ chspicg07/ E-SAMPARK SEC-21/ CH-CH
Unique Doc. Reference	:	SUBIN-CHCHSPICG0709074064580244X
Purchased by	:	DEEPTI AHLAWAT
Description of Document	:	Article 4 Affidavit
Property Description	:	Not Applicable
Consideration Price (Rs.)	:	0 (Zero)
First Party	:	CHANDIGARH POWER DISTRIBUTION LIMITED
Second Party	:	Not Applicable
Stamp Duty Paid By	:	CHANDIGARH POWER DISTRIBUTION LIMITED
Stamp Duty Amount(Rs.)	:	100 (One Hundred only)

NOTARY PRADEEP Regn. No Chandigarh (U.T.) GOVT. OF INDIA

Please write or type below this line

BEFORE THE HON'BLE JOINT ELECTRICITY REGULATORY COMMISSION AT GURUGRAM

(FOR THE STATE OF GOA AND UNION TERRITORIES)

Petition No. _____ of 2025

IN THE MATTER OF:

Filing of Petition for approval of Business Plan for the Distribution and Retail Supply Business of Chandigarh Power Distribution Limited for the FY 2025-26 to FY 2029-30 in accordance with the Regulation 8 of the Joint Electricity

IN-DF 00131700083

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Regulatory Commission for the State of Goa and Union Territories (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2024 read with Section 62 and 64 of the Electricity Act, 2003.

AND

IN THE MATTER OF:

Chandigarh Power Distribution Limited
4th Floor, SCO 33, 34 & 35,
Sector 34A,
Chandigarh, India, 160022
Email: cpdl@rpsg.in
Phone No: 0172-4531254

NOTARY PRADEEP K. Regn. No.4[illegible] Chandigarh (U.T.) GOVT. OF INDIA

... Applicant

AFFIDAVIT

I, Shri Brajesh Kumar Singh, S/O Sh. Avdhesh Kumar, aged about 37 years, working as Deputy Manager, Chandigarh Power Distribution Limited, having its registered office at residing at 4th Floor, SCO 33, 34 & 35, Sector 34A, Chandigarh, India, 160022, presently at Chandigarh the deponent named above do hereby solemnly affirm and state on oath as under:-

1. That the deponent is the Authorised Signatory who is authorized as per the resolution of the company dated 16.05.2025 and is acquainted with the facts deposed to below.

2. I, the deponent named above do hereby verify that the contents of the paragraph Nos. 1 of the affidavit and those of the paragraph No. .....1.1-10..... of the accompanying application are true to my personal knowledge and those of the paragraph Nos. .....1.1-10..... of the accompanying application are based on the perusal of records and those of the paragraph Nos. .....1.1-10..... of the accompanying application are based on information received and those of the paragraph Nos. .....1.1-10..... of the accompanying application are based on the legal advice which I believe to be true and verify that no part of this affidavit is false and nothing material has been concealed.

ATTESTED
PRADEEP KUMAR
Notary, Chandigarh (U.T.)
06 JUN 2025

Chandigarh Power Distribution Ltd. CPDL

DEPONENT
BRAJESH KUMAR

I, Karan Kaushik Advocate, PH/1434/2021, do hereby declare that the person making this affidavit is known to me through the perusal of records and I am satisfied that he is the same person alleging to be deponent himself.

23465/2025/Legal Section

Advocate

Solemnly affirmed before me on this ...6..... day of ~~May~~ June, 2025 at 2.120 a.m. / p.m. by the deponent who has been identified by the aforesaid Advocate. I have satisfied myself by examining the deponent that he understood the contents of the affidavit which has been read over and explained to him. He has also been explained about Section 229 of Bhartiya Nyaya Sanhita, 2023 that whoever intentionally gives false evidence in any of the proceedings of the Commission or fabricates evidence for purpose of being used in any of the proceedings shall be liable for punishment as per law.

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Chandigarh Power Distribution Ltd. ★ CPDL

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List of Abbreviations

S. No	Abbreviations	Descriptions
1.	ADMS	Advanced Distribution Management System
2.	AMI	Advanced Metering Infrastructure
3.	AMR	Automatic Meter Reading
4.	APCPL	Aravali Power Company Private Limited
5.	APTEL	Appellate Tribunal for Electricity
6.	AR	Augmented Reality
7.	AT&C	Aggregate Technical and Commercial
8.	ATP	Any-Time Payment
9.	BBMB	Bhakra Beas Management Board
10.	CAGR	Compound Annual Growth Rate
11.	CEA	Central Electricity Authority
12.	CESC Ltd.	Calcutta Electric Supply Corporation Limited
13.	CPDL	Chandigarh Power Distribution Limited
14.	CREST	Chandigarh Renewable Energy Science and Technology
15.	CSS	Compact Substation
16.	DERMS	Distributed Energy Resource Management System
17.	DGPS	Differential Global Positioning System
18.	DNIT	Detailed Notice Inviting Tender
19.	EEDL	Eminent Electricity Distribution Limited
20.	ERP	Enterprise Resource Planning
21.	EV	Electric Vehicle
22.	EWEDC	Electricity Wing of Engineering Department, Chandigarh
23.	FANA	Fault Analysis and Network Analysis
24.	FY	Financial Year
25.	GIS	Geographic Information System
26.	GSS	Grid Substation
27.	HAN	Home Area Network
28.	HES	Head-End System
29.	HT	High Tension
30.	IEC	International Electrotechnical Commission
31.	ISU	Industry Solution for Utilities
32.	JERC	Joint Electricity Regulatory Commission for the State of Goa and Union Territories
33.	LiDAR	Light Detection and Ranging
34.	LILO	Line-In Line-Out
35.	LT	Low Tension
36.	MAIFI	Momentary Average Interruption Frequency Index
37.	MDM	Meter Data Management
38.	MU	Million Units
39.	MUNPL	Meja Urja Nigam Private Limited
40.	MYT	Multi Year Tariff
41.	NHPC	National Hydroelectric Power Corporation
42.	NIT	Notice Inviting Tender
43.	NPCIL	Nuclear Power Corporation of India Limited
44.	NTPC	National Thermal Power Corporation
45.	PGCIL	Power Grid Corporation of India Limited
46.	PSEB	Punjab State Electricity Board
47.	PTR	Power Transformer

S. No	Abbreviations	Descriptions
48.	RAPDRP	Restructured Accelerated Power Development and Reforms Programme
49.	RFP	Request for Proposal
50.	RLDC	Regional Load Dispatch Center
51.	RMU	Ring Main Unit
52.	RPO	Renewable Purchase Obligation
53.	SAIDI	System Average Interruption Duration Index
54.	SAIFI	System Average Interruption Frequency Index
55.	SAP	Systems, Applications, and Products in Data Processing
56.	SAS	Substation Automation System
57.	SCADA	Supervisory Control and Data Acquisition
58.	SECI	Solar Energy Corporation of India
59.	SERC	State Electricity Regulatory Commission
60.	SJVNL	Satluj Jal Vidyut Nigam Limited
61.	SLC	Special Leave Petition
62.	SPA	Share Purchase Agreement
63.	SPV	Special Purpose Vehicle
64.	T&D	Transmission and Distribution
65.	THDC	Tehri Hydro Development Corporation
66.	UT	Union Territory
67.	VR	Virtual Reality
68.	VTS	Vehicle Tracking System

1. Introduction

1.1. Background

1.1.1 Union Territory (UT) of Chandigarh was formed with effect from November 1, 1966, after reorganization of erstwhile state of Punjab in terms of the Punjab Reorganisation Act, 1966. An early entrant to the planning process, U.T. Chandigarh has emerged as one of the most developed Union Territories in India and even achieved the ranking of one of the best UTs in India with regards to investment environment, infrastructure and tourism.

1.1.2 The distribution of electricity within the U.T. of Chandigarh was taken over by the Chandigarh Administration from the Punjab State Electricity Board (***"PSEB"***) on May 2, 1967. The Electricity Wing of Engineering Department, Chandigarh (***"EWEDC")*** was part of Chandigarh Administration, UT of Chandigarh and was responsible for Transmission and Distribution of power supply to its consumers. EWEDC, a deemed licensee under section 14 of the Electricity Act 2003, was carrying out the business of transmission, distribution and retail supply of electricity in Chandigarh (UT) until 31.01.2025.

1.1.3 Government of India announced Aatma Nirbhar Bharat Abhiyan in May 2020 to make India self-reliant through structural reforms. One of the key reform measures planned was to reform power distribution and retail supply in Union Territories.

The brief timelines associated with the restructuring of the Distribution Utility of EWEDC Chandigarh are described in the subsequent section.

1.2. Restructuring of the Distribution Utility of EWEDC Chandigarh

1.2.1 Vide notification dated 22.06.2004, the Government of India empowered the Administrators/ Lt. Governors of the Union Territories to exercise the power and discharge the functions of the State Government within their respective territories.

1.2.2 On 28.04.2016, the Hon'ble Commission made recommendations to the UT Administration, Chandigarh for initiating action of corporatization of EWEDC. On 03.02.2020, Chief Engineer-cum-Special Secretary approved the proposal and

recommended for the issuance of NIT for appointment of consultant for corporatization and restructuring of EWEDC.

1.2.3 On 05.05.2020, the Union Home Minister issued a communication to the Union Minister of Power to take up the matter of privatization of Power Departments in the Union Territories in a time bound manner. On 12.05.2020, the Ministry of Power held a meeting taking up the matter of privatization of power distribution.

1.2.4 On 16.05.2020, the Union Ministry of Finance also announced various structural reforms including the privatization of the distribution in power sector in the Union Territories. On 20.05.2020, the Union Ministry of Power also requested the Union Territories to take decision of corporatization and privatization of the electricity distribution function, immediately.

1.2.5 Thereafter, the Advisor, UT Chandigarh, affirmed the proposal for the said privatization and informed that the tender for the appointment of transaction advisor for corporatization of the Electricity Wing of Chandigarh had already been floated.

1.2.6 On 10.06.2020, a High-Level Steering Committee was constituted and M/s Deloitte Touche Tohmatsu India Private Limited was appointed as Transaction Advisor on 01.07.2020 for assistance in the privatization of the EWEDC, Chandigarh.

1.2.7 On 20.07.2020, the first meeting of the High-Level Steering Committee was directed to ensure completion of the process of privatization by 30.12.2020. On 21.08.2020, a meeting to review the status of the privatization of Power Departments/DISCOMs in the Union Territories, was held under the Chairmanship of the Minister of State for Power and one of the major action points emanating from the discussion was to ensure the release of bid documents before 01.10.2020 and complete the entire process by 31.12.2020.

1.2.8 On 20.09.2020, a draft Standard Bidding Document (SBD) for the selection of bidders for the purchase of majority shares was issued which provided for privatization of the distribution licensees comprising the draft Request for Proposal (RFP) with the drafts of Employee Transfer Scheme, Shareholder Agreement, Shareholder Acquisition Agreement for the sale of 100% stake, Policy directions and Bulk Supply Agreement seeking comments from all the stakeholders by 05.10.2020 which was extended up to 12.10.2020.

1.2.9 On 29.09.2020, the Transaction Advisor submitted the draft Chandigarh Electricity Reforms Transfer Scheme to the Administration of U.T. Chandigarh, along with the draft Policy Directions, draft Shareholder Agreement and RFP for the selection for

bidder for purchase of 100% shares in SPV for the distribution and retail sale of electricity in the UT, Chandigarh.

1.2.10 On 10.11.2020, notice inviting the bids for purchase of 100% shares in the distribution company from the interested entities fulfilling the qualification requirements and other conditions set out in the RFP which was part of the SBD was issued.

1.2.11 Pending the above, the U.T. Powermen Union (Union of the employees of U.T. Power Department), Chandigarh filed a Civil Writ Petition no. 20439/2020 ***("Writ Petition")*** before Hon'ble Punjab and Haryana High Court (***"Hon'ble High Court"***) inter-alia questioning the correctness of the Office Memorandum issued on 10.05.2020, decision taken by the Union of India on 12.05.2020 and prayed for quashing of the notice issued by the U.T. Chandigarh inviting the bids.

1.2.12 The Writ Petition came up for hearing on 01.12.2020 and was admitted for regular hearing while staying the operation and effect of Office Memorandum dated 10.05.2020 and notice inviting the bids dated 10.11.2020 (ref Order dated 01.12.2020 of Hon'ble High Court).

1.2.13 On 06.11.2024, Hon'ble High Court dismissed the Writ Petition and upheld the decision of the Central Government to privatize EWEDC. The said Order was challenged before the Hon'ble Supreme Court in a Special Leave Petition (SLP (C.) No. 27841/2024) filed by U.T. Powermen Union where the Hon'ble Supreme Court by its Order dated 02.12.2024, dismissed the SLP and upheld the Order passed by the Hon'ble High Court . (ref Judgement dated 02.12.2024).

1.2.14 Following the completion of the bidding process, on 05.08.2021, Eminent Electricity Distribution Limited (***"EEDL"***), a subsidiary of CESC Ltd. was selected as the Successful Bidder for purchase of 100% equity shares in the Distribution Company named Chandigarh Power Distribution Limited ***("CPDL" or "Petitioner"***).

1.2.15 Pursuant to the Hon'ble Supreme Court Order dated 02.12.2024, dismissing the SLP (C.) No. 27841/2024, on 21.01.2025, Letter of Intent was issued to EEDL to acquire 100% stake in the Electricity Distribution business of EWEDC.

1.2.16 Vide Notification No. G1/2025/120 dated 31.01.2025, the Administration of UT Chandigarh, notified the Chandigarh Electricity Reforms Transfer Scheme, 2025 (***"Transfer Scheme"***) in exercise of powers conferred to the Administration of UT Chandigarh under the provisions of Sections 131, 133 and 134 of the Electricity Act, 2003 read with Notification bearing No. S.O.721(E) dated 22.06.2004 issued by

Ministry of Home Affairs, Government of India, thereby giving effect transfer of the distribution and retail supply licensee functions of EWEDC including the undertaking, assets, proceedings and liabilities assets, liabilities, interests, rights, functions, obligations, proceedings and personnel to CPDL. The effective date for the Transfer Scheme to come into effect was notified as 01.02.2025 by Notification No. G1/2025/121 dated 01.02.2025.

1.2.17 On 31.01.2025, Administration of UT Chandigarh, EEDL and CPDL accordingly entered into the Share Purchase Agreement (***"SPA"***) for acquisition of 100% equity shares of CPDL by EEDL.

1.2.18 Pursuant to the Transfer Scheme and SPA and Policy Directions and in terms of the Notification No. G1/2025/121 dated 01.02.2025, CPDL has taken over the distribution and retail supply functions of the EWEDC with effect from 01.02.2025, with EWEDC ceasing to be responsible for the same from 01.02.2025.

1.2.19 On 07.02.2025, Administration of UT Chandigarh notified Policy Directions by Notification No. G1/2025/133, in terms of powers under Sections 108 and 109 of the Electricity Act, 2003 read with Government of India, Ministry of Home Affairs' Notification bearing No. S.O.721(E) dated 22.06.2004 to enable effective restructuring of the Electricity sector in the UT of Chandigarh consistent with the objectives of The Electricity Act, 2003.

1.2.20 Having taken over the undertaking and operations with effect from 01.02.2025, the Petitioner is in the process of assessing the various parameters including -

- Transition issues arising after implementation of the Transfer Scheme;
- Load and consumer mix;
- Power purchase portfolio with legacy issues in power procurement;
- Demand forecasting and issues in meeting the universal supply obligations under Section 43 of the Electricity Act, 2003;
- Fixed Asset Register (***"FAR"***) with aging and asset-health assessment;
- New Electrification Schemes, Network augmentation, operations and maintenance requirements for the licensed area of supply;
- Metering system, Billing with arrears, Collection Efficiency, AT&C losses;
- Regulatory Gap/Surplus;

Chandigarh Power Distribution Ltd. CPDL

- Employee issues and conditions of service for the transferred and new employees, including issues of payment of terminal benefits, Pension Trust and actuarial valuation; and
- Status of actual compliance with the various applicable regulations.

1.2.21 Petitioner is also in the process of completing the handing over and the taking over process including verification and receipt of documents and information essential for operating the distribution business. In view of the prevailing exigencies and absence of certain official and authenticated documents, which are material for the purposes of filing the present Petition, the Petitioner has made reasonable efforts to reconstruct the necessary information derived from publicly available records, reports, its own analysis and other sources on a best effort basis.

1.2.22 After an assessment, analysis of and projections based on data and information (i) provided by the UT Administration, (ii) sourced from available documents including the Tariff Orders, and (iii) received on a best effort basis (which is currently being verified); and subject to documents and information being provided to Petitioner.

1.2.23 Accordingly, Petitioner is filing the Business Plan for the Distribution business of Chandigarh for the FY 2025-26 to FY 2029-30 in accordance with the provisions of the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2024 ("***Tariff Regulations 2024***").

1.2.24 The present Petition and the submissions made herein are bonafide, in the interest of transparency and with an intention to comply with the requirements of the Hon'ble Commission to file the Business Plan for the Control Period FY 2025-26 to FY 2029-30 by 10.06.2025. The submissions made herein are without prejudice to the Petitioner's right to update or revise the submissions, estimates and projections in the present Petition.

1.2.25 Petitioner seeks liberty to file supplementary or additional submissions, revised estimates and projections or take other permissible steps in accordance with the Electricity Act, 2003 or the Tariff Regulations to place on record any inadvertent discrepancies that may have arisen, after receipt of the complete official data.

1.3. Chandigarh Power Sector

1.3.1 Chandigarh, with a geographical spread of around 114 sq.km and with total population of around 1.05 million is placed at 33rd position in terms of area and at 29th position by population (as per census 2011) in the country. Chandigarh is a Union Territory in the northern part of India and is also the capital of the States of Punjab and Haryana. This city is governed by the Union Government and is not part of either States. It stands in first position in the country in the Human Development Index & is also counted amongst the "Wealthiest Town" of India. The geographical area of Chandigarh served by CPDL is given below:

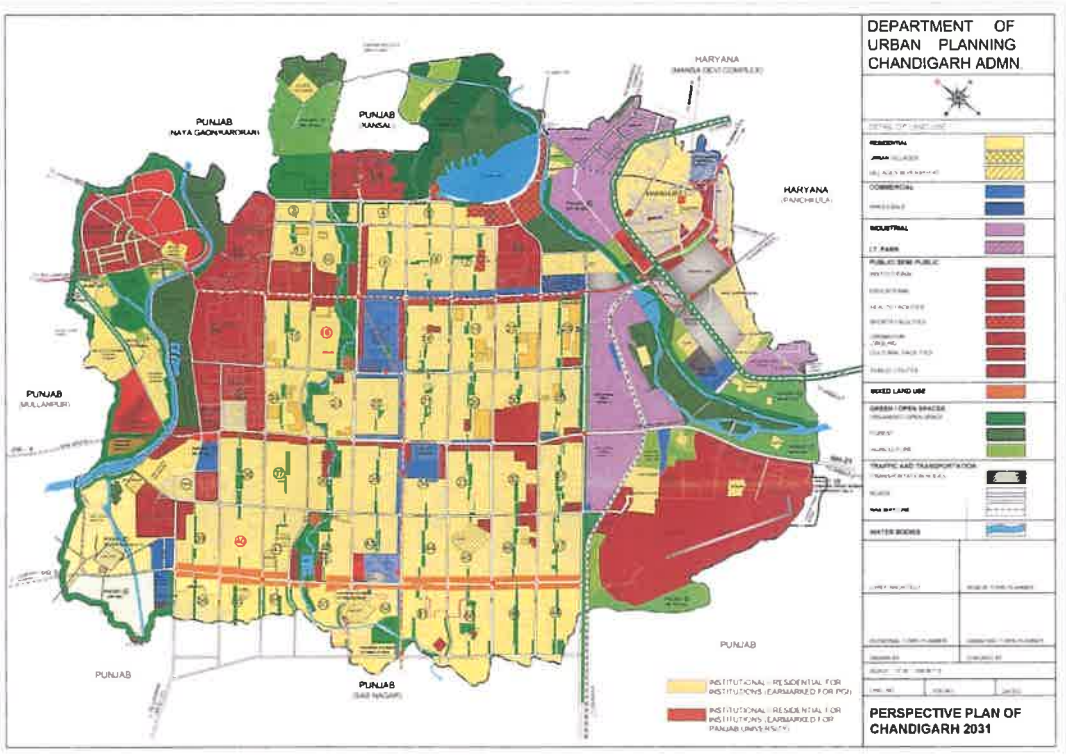

Figure 1. Map of Chandigarh

1.3.2 As per the Information Memorandum provided along with RFP, the asset details of distribution infrastructure in Chandigarh area as on 31.03.2019 are shown in table herein under:

Table 1. Distribution Infrastructure of CPDL as on 31.03.2019

Particulars	Units	Quantity
220 KV Sub Stations	Nos.	1
66 KV Sub Stations	Nos.	14
33 KV Sub Stations	Nos.	4
66 KV Feeders	KMs	131
33 KV Feeders	KMs	22
11 KV Feeders	KMs	873
LT Lines	KMs	1621
Distribution Transformers	Nos.	2200
Distribution Transformers	MVA	734

1.3.3 Based on the preliminary survey carried out by the Petitioner, the details of current distribution infrastructure of Petitioner as on 31.03.2025 are shown in table herein under:

Table 2. Distribution Infrastructure of CPDL as on 31.03.2025

Particulars	Units	Quantity
220 KV Sub Stations	Nos.	1
66/11 KV Sub Stations	Nos.	14
66/33/11 KV Sub Stations	Nos.	3
33/11 KV Sub Stations	No.	2
Indoor 11/0.4 KV Sub Stations	Nos.	200
220 KV Feeders	KMs	108
66 KV Feeders	KMs	133
33 KV Feeders	KMs	23
11 KV Feeders	KMs	914
LT Lines	KMs	1647
Distribution Transformers	Nos.	2345
Distribution Transformers	MVA	771

**The above is subject to final outcome pursuant to the complete physical verification of all assets being undertaken by Petitioner*

1.3.4 As per the Transfer Scheme, Part D [Transfer of Electricity Distribution Business] 1.b. read with Clause II of Schedule 'B', all existing Power Purchase Agreements (PPAs) were transferred to CPDL as on transfer date i.e. 01.02.2025. Petitioner does not own any generating station and its long term power procurement is dependent on the allocation from Central Generating Stations (CGS) and other sources i.e., NTPC, NHPC, NPCIL, BBMB, SJVNL, THDC, APCPL, MUNPL and new addition of SECI's Wind (Tranche VI). A small portion of the power requirement is met from the Solar generating stations located within the UT and the shortfall (if any, due to seasonal variations) is met through short term purchase under bilateral transactions and power exchange etc. The present power allocation of Chandigarh is approximately 599 MW from various generating stations including 129 MW from Bhakra Beas Management Board ***("BBMB")***.

1.3.5 At present the electricity demand/ load is primarily from domestic and commercial consumers, which contributed approx. 80% to the total energy sales of Petitioner during FY 2024-25.

1.4. Tariff Proceedings

1.4.1 **Business Plan for MYT Control Period from FY 2016-17 to FY 2018-19:** EWEDC submitted its first Business Plan for the Control Period FY 2015-16 to FY 2017-18 (3 years control period) on 17.09.2015 in terms of Regulation 12.1 of the JERC Multi Year Tariff Regulation, 2014. In terms of Regulation 5.1 (as amended by JERC (Multi-Year Distribution Tariff) (First Amendment) Regulations, 2015 dated 10.08.2015) and Regulation 12.1 of the JERC Multi-Year Distribution Tariff Regulations, 2014, EWEDC filed for approval of its Business Plan for three years control period FY 2016-17 to FY 2018-19 before the Hon'ble Commission. The Hon'ble Commission approved the Business Plan for the control period FY 2016-17 to FY 2018-19 vide its Order dated 28.12.2015.

1.4.2 **Business Plan for MYT Control Period from FY 2019-20 to FY 2021-22:** EWEDC submitted its second Business Plan for the Control Period FY 2019-20 to FY 2021-22 (3 years control period) on 29.08.2018 in terms of Regulation 8 of the JERC (Generation, Transmission and Distribution Multi Year Tariff Regulation, 2018. Hon'ble Commission approved the Business Plan for the control period FY 2019-20 to FY 2021-22 vide its Order dated 12.11.2018.

1.4.3 **Business Plan for MYT Control Period from FY 2022-23 to FY 2024-25:** EWEDC submitted its third Business Plan for the Control Period FY 2022-23 to FY 2024-25 (3 years control period) on February, 2022 in terms of Regulation 8 of the JERC (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2021. The Hon'ble Commission approved the Business Plan for the control period FY 2022-23 to FY 2024-25 vide its Order dated 11.07.2022.

1.4.4 On 15.10.2024, the Hon'ble Commission has notified JERC (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2024 ("***Tariff Regulations 2024***"). As per Regulation 8.1 of Tariff Regulations 2024, the Distribution Licensee is required to file the Business Plan Petition for the control period FY 2025-26 to FY 2029-30. The relevant extract of the said Regulation is reproduced as under:

> *"8.1 The **Generating Company, Transmission Licensee and Distribution Licensee shall file a petition, duly approved by the***

competent authority, for approval of Business Plan *by the Commission for the entire Control Period by the date as directed by the Commission."*

[Emphasis Added]

1.4.5 Accordingly, the Petitioner, post take-over of the functions and undertaking in terms of Transfer Scheme, is filing its first Business Plan for the Distribution business of Chandigarh for the Control Period FY 2025-26 to FY 2029-30 in the instant Petition for kind consideration of the Hon'ble Commission, based on data and information (i) provided by the UT Administration, (ii) sourced from publicly available documents including the Tariff Orders, and (iii) received on a best effort basis (which is currently being verified), with liberty to file supplementary or additional submissions, revised projections or take other permissible steps in accordance with the Electricity Act, 2003 or the Tariff Regulations to place on record any inadvertent discrepancies that may have arisen, after receipt of the complete official data and records.

1.5. Objective of Business Plan

1.5.1 A business plan, as conventionally defined is a formal statement of a set of business goals, the reasons why they are believed attainable, and the plan for reaching those goals. It may also contain background information about the organization or team attempting to reach those goals.

1.5.2 Accordingly, the business plan for CPDL is developed keeping in mind the growth plan for the control period after considering the strengths and weaknesses of the Utility and evaluating its business environment. The business environment has evolved considerably in several ways that are expected to affect CPDL's strategic planning.

1.5.3 The business plan is intended to give a comprehensive and up-to-date representation of the Utility, its market, the impact of new regulations, and the strategies that have been developed by CPDL to achieve the same. However, as mentioned above, there are a number of internal and external factors which affect the planning of the Utility and thus, it makes this a very dynamic and evolving document which calls for regular reviews / modification of the plan with a view to improving the same in addition based on new material / figures that may be received by the Petitioner going forward.

1.6. Approach to Business Plan

1.6.1 Regulation 8.5 of the Tariff Regulations 2024 provides the components to be covered in the Business Plan for the Control Period FY 2025-26 to FY 2029-30. The relevant extract of the said Regulation is reproduced as under:

> ***"8 Business Plan***
>
> ***8.1 The*** *Generating Company, Transmission Licensee and* ***Distribution Licensee shall file a petition, duly approved by the competent authority, for approval of Business Plan by the Commission for the entire Control Period by the date as directed by the Commission.***
>
> *8.2 The Business Plan filed by the Distribution Licensee shall contain separate sections on Distribution Wires Business and Retail Supply Business.*
>
> *8.3 The Business Plan filed by the Generating Company shall inter-alia contain:*
>
> .....
>
> *8.4 The Business Plan filed by the Transmission Licensee shall inter-alia contain:*
>
> .....
>
> ***8.5 The Business Plan filed by Distribution Licensee shall inter-alia contain:***
>
> *a)* ***Projection for the growth of load/demand***
>
> *b) (i)* ***Capital Investment Plan*** *for each Year of the Control Period commensurate with load growth, distribution loss reduction trajectory and quality improvement measures proposed in the Business Plan in accordance with Regulation 8.6;*
>
> *(ii) The capital investment plan shall show separately, on-going projects that will spill into each year of the control period and new projects (along with justification) that will commence but may be completed within or beyond the control period.*
>
> *c)* ***Capital Structure of each scheme proposed and the cost of financing*** *(interest on debt and return on equity), terms of the existing loan agreements, etc.;*
>
> *d)* ***Sales Forecast*** *for each Consumer category and sub-categories(slab-wise) for each Year of the Control Period in accordance with Regulation 8.7;*
>
> *e)* ***Power Procurement Plan*** *based on the Sales Forecast and distribution loss trajectory for each Year of the Control Period in accordance with the Regulation 8.8;*
>
> *f)* ***Performance Targets items*** *such as distribution loss, reliability indexes (SAIFI, SAIDI & MAIFI), transformer failure rate and any other parameter for quality of supply for each Year of the Control Period consistent with the Capital Investment Plan proposed by the Distribution Licensee;*

*g) Projections for **number of employees** during each Year of the Control Period based on proposed recruitments and retirement;*

*h) Proposals in respect of **income from Other Business** for each Year of the Control Period"*

1.6.2 In terms of the above clause, the key elements of a Business Plan are as follows:

a) Sales & Demand Projections

b) Distribution Loss

c) Power Purchase Plan

d) Capital Expenditure

e) Manpower Planning

f) Income from Other Business

1.6.3 The projections are based on the historical performance of EWEDC during FY 2017-18 to FY 2024-25, projected improvements vis-à-vis past performance and upcoming capital investment projects during the control period. Facts and figures for FY 2022-23, FY 2023-24 and FY 2024-25 have been relied upon extensively for making a reasonable assessment of the components illustrated in the Business Plan as mentioned above. Thus, the Petitioner has taken care to ensure that estimates submitted in the Business Plan take due cognizance of historical trends, as per the information available to CPDL as on date, on a best effort basis, while also giving due cognizance to the initiatives planned to be undertaken by the Petitioner during the Control Period to improve the financial and operational efficiency of the Discom. During the Control Period, the Petitioner intends to focus on initiatives that enhance consumer experience, improve the performance of utility viz. network development, efficient operation and customer service.

1.6.4 As submitted in the earlier paragraphs, the Petitioner has taken over operations of distribution and retail supply of electricity in the Union Territory of Chandigarh on 01.02.2025. While the Petitioner has ensured that its obligations in terms of the Transfer Scheme are adhered to, the Petitioner is still in process of receiving complete handover of information, commercial data and audited information pertaining to period prior to takeover of operations, as detailed above. Furthermore, the Petitioner has gained a preliminary understanding of the ground realities of the extant distribution network. Additionally, the Petitioner has also initiated audits/studies with respect to critical areas including:

a) Assessment of baseline loss levels for accurate accounting of distribution loss;

b) Physical verification of assets and formulation of FAR; and

c) Safety audit

1.6.5 It is also submitted that these audits are being conducted by various reputed government and independent agencies. Completion of audit would provide better insights on the realities of the extant distribution network. Additionally, assessment of baseline losses would also assume greater relevance as the Petitioner has determined the prevailing distribution loss on the basis of available information.

1.6.6 Thus, completion of the above-mentioned audits and any subsequent audits/studies to be undertaken by Petitioner may also require the Petitioner to revise estimates made in the Business Plan. Moreover, as the Petitioner improves its understanding of the distribution network and is provided the relevant information as detailed above, it would be able to apply its considerable technical and commercial expertise towards instituting mechanisms aimed at improving the operational and financial efficiency of the Discom. Thus, while the Petitioner has prepared the Business Plan based on historical data and performance and initial understanding of the extant distribution network, the Petitioner humbly craves leave to make revised submissions while proceedings are ongoing or later during the Control Period. The Petitioner also craves leave of the Hon'ble Commission to submit revised estimates and projections during the True-up proceedings or during Mid-Term Review in the interest of justice, for the reasons mentioned above.

1.6.7 It is humbly reiterated that despite varied challenges, the Petitioner has made a sincere effort, based on the available record, towards preparing the Business Plan to the best of its ability. In view of the same, the Petitioner requests the Hon'ble Commission to duly consider estimates and projections as submitted in the Business Plan.

1.7. Apportionment between Distribution Wires Business and Retail Supply Business

1.7.1 The Petitioner submits that Regulation 8.2 of the Tariff Regulations 2024 stipulates as under:

"8.2 The Business Plan filed by the Distribution Licensee shall contain separate sections on Distribution Wires Business and Retail Supply Business."

1.7.2 Regulation 7 of the Tariff Regulations 2024 provides for segregation of the accounts of the Licensed Business into Distribution Wires Business and Retail Supply Business. Additionally, Regulation 7.2 allows Licensees to use the Allocation Statement provided in Regulation 57 to apportion costs and revenues to respective Business.

1.7.3 Regulation 57 of the Tariff Regulations 2024 provide as under:

"57 Separation of Accounts of Distribution Licensee

57.1 Every Distribution Licensee shall segregate accounts for Distribution Wires Business and Retail Supply Business and shall prepare an Allocation Statement. The wheeling charges pertaining to Distribution Wires Business of the Distribution Licensee shall be determined by the Commission on the basis of these segregated accounts:

Provided that in case complete accounting segregation has not been done, the following Allocation Statement shall be applicable:

Table 1: Allocation Statement for segregation of Distribution Wires Business and Retail Supply Business

Particulars	*Wires Business (%)*	*Retail Supply Business (%)*
Power Purchase Expenses	*0%*	*100%*
Inter-State Transmission Charges	*0%*	*100%*
Intra-State Transmission Charges	*0%*	*100%*
Employee Expenses	*40%*	*60%*
Administration & General Expenses	*50%*	*50%*
Repair & Maintenance Expenses	*90%*	*10%*
Capital Cost	*90%*	*10%*
Depreciation	*90%*	*10%*
Interest on Long-term Loan Capital	*90%*	*10%*
Interest on Working Capital and on Consumer Security Deposits	*10%*	*90%*
Bad Debts Written Off	*0%*	*100%*
Income Tax	*90%*	*10%*
Non-Tariff Income	*10%*	*90%*
Income from Other Business	*50%*	*50%*

1.7.4 In accordance with the provisions of Tariff Regulations 2024, the Petitioner has considered the above-mentioned Allocation Statement. The Petitioner requests the Hon'ble Commission to consider the same.

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2. Sales and Demand Projections

2.1 Regulatory Provision

2.1.1 Regulation 8.7 of the Tariff Regulations, 2024 provides the basis for estimation of number of consumers, connected load and sales, which is reproduced as follows: -

> "**8.7. Sales Forecast**
>
> *"a) The Distribution Licensee shall forecast sales for each Consumer category and subcategories, at different voltage levels, for each Year of the Control Period in their Business Plan filings, for the Commission's approval.*
>
> *b) The forecast shall be based on the actual demand of electricity in previous Years, anticipated growth in demand in coming Years, expected growth in the number of Consumers, load growth, changes in the pattern of consumption, target AT&C losses*
>
> *Provided that where the Commission has stipulated a methodology for forecasting sales to any particular Tariff category, the Distribution Licensee shall incorporate such methodology in developing the sales forecast for such Tariff category.*
>
> *c) The Distribution Licensee, while forecasting sales, shall also consider effect of target; if any, set for Energy Efficiency and Demand Side Management Schemes;*
>
> *d) The sales forecast shall be consistent with the load forecast prepared as part of the power procurement plan under Regulation 8.8 of these Regulations and shall be based on past data and reasonable assumptions regarding the future:*
>
> *e) The Licensee shall indicate separately the sale of electricity to traders or another Licensee and category wise sales to Open Access Consumers.*
>
> "

2.2 Approach for forecasting No. of Consumers, Connected Load and Sales for the Control Period

2.2.1 The Petitioner has adopted the compounded annual growth rate (CAGR) of past years of each consumer category considering the figures for FY 2017-18 till FY 2024-25 as per audited accounts/ provisional data obtained based on the best efforts of Petitioner, as detailed above.

2.2.2 FY 2024–25 has been considered as the base year for projections. The sales, consumer base, and load data for the base year have been derived from the latest available provisional data till March 2025, obtained based on best efforts of Petitioner, as detailed above, with an intention and attempt to align the said

projections with actual data, pending its availability and verification, and to ensure minimum deviation.

2.2.3 Based on Petitioner's understanding and analysis of the available data and documents, it appears that the electricity consumption for EWEDC was affected during FYs 2020–21 and 2021–22 due to COVID-19 pandemic and the resulting lockdowns orders. These events appear to have caused significant change in consumption patterns, making the sales data from these years less reliable for long-term trend analysis and projections. Therefore, while calculating the CAGR for sales, the number of consumers, and demand, limited reliance has been placed on the 5-year CAGR and 4-year CAGR.

2.2.4 Notably, the sales figures for FY 2022–23 marked a return to pre-COVID-19 levels, underscoring a recovery in demand following the economic disruptions caused by the pandemic. EWEDC experienced a slight decline in recorded sales between FY 2022–23 and FY 2023–24, with a decrease of approximately 3.44%. However, this downward trend reversed in FY 2024–25, where sales demonstrated a robust recovery, increasing by 10.06% compared to FY 2023–24.

2.2.5 Since the 5-year and 4-year CAGRs are impacted by the unprecedented situation and conditions caused on account of the COVID-19 pandemic and the delayed recovery to pre-pandemic sales levels, they do not accurately reflect the recent trends or future growth patterns. Instead, greater emphasis has been placed on the 3-year, 2-year and 1-year CAGR, which captures the sales performance of the most recent years and aligns more closely with the current market dynamics.

2.2.6 The category-wise projections considered from FY 2025-26 to 2029-30 are discussed here below:

2.3 Forecasting of Sales

2.3.1 The actual category-wise energy sales for the past 8 years, i.e. from FY 2017-18 to FY 2024-25 is provided in the table given below:

Table 3. Actual category-wise energy sales for FY 2017-18 to FY 2024-25 (MU)

SN	Sales	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25
1	Domestic LT	719	675	730	675	686	765	723	825
2	Domestic HT	13	29	29	15	20	27	27	29
3	Commercial LT	376	207	222	154	189	229	229	254
4	Commercial HT	118	266	262	177	212	266	267	284
5	Bulk Supply	81	77	83	77	77	85	81	86

SN	Sales	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25
6	Temporary Supply	4	4	4	3	4	5	5	6
7	Public Lighting	18	15	15	12	14	16	15	15
8	Agriculture	1	1	1	1	1	2	1	1
9	Large Supply	120	125	124	109	117	124	123	131
10	Medium Supply	119	116	106	102	98	104	97	96
11	Small Power	20	19	18	16	16	19	18	19
12	EV Charging Station	-	-	-	-	0.68	1.77	0.13	0.66
	Grand Total	**1,589**	**1,536**	**1,596**	**1,342**	**1,436**	**1,643**	**1,586**	**1,746**

2.3.2 The energy sales for FY 2017-18 to FY 2021-22 are considered as Trued Up by the Hon'ble Commission in the respective Tariff Orders. Further, the energy sales for FY 2022-23 to FY 2024-25 are considered based on latest available information, obtained based on best efforts of Petitioner. The energy sales from FY 2022-23 to FY 2024-25 may vary subject to finalization of accounts, receipt of actual and accurate data for the respective years.

2.3.3 Based on the data for energy sales as mentioned above, the category wise CAGR of past 7 years of each consumer category are calculated. The table below shows the historical CAGR for each category for the respective years:

Table 4. Growth rate considered for Category-wise Sales (%)

SN.	Category/ Slab	7Y	6Y	5Y	4Y	3Y	2Y	1Y
1	Domestic LT	2.0%	3.4%	2.5%	5.1%	6.3%	3.8%	14.1%
2	Domestic HT	11.7%	-0.4%	-0.6%	17.2%	12.1%	1.9%	5.2%
3	Commercial LT	-5.4%	3.5%	2.7%	13.3%	10.3%	5.3%	11.2%
4	Commercial HT	13.3%	1.1%	1.6%	12.5%	10.3%	3.4%	6.3%
5	Bulk Supply Total	0.9%	1.8%	0.8%	2.8%	3.8%	0.9%	6.4%
6	Temp Supply	3.8%	6.5%	6.4%	13.8%	12.7%	11.6%	5.3%
7	Public Lighting	-2.2%	0.1%	0.6%	5.6%	2.1%	-2.3%	-0.1%
8	Agriculture	-1.0%	-0.4%	-1.2%	-0.5%	0.1%	-7.8%	5.8%
9	Large Supply	1.3%	0.7%	1.1%	4.6%	3.9%	2.8%	6.6%
10	Medium Supply	-3.1%	-3.2%	-2.1%	-1.5%	-0.9%	-4.2%	-1.3%
11	Small Power	-0.5%	-0.1%	0.4%	3.7%	4.8%	-0.1%	5.9%
12	EV Charging Station					-0.5%	-38.7%	398.9%
	Total	**1.4%**	**2.2%**	**1.8%**	**6.8%**	**6.7%**	**3.1%**	**10.1%**

2.3.4 The above table depicts that the energy sales of the Petitioner have been on a moderate upward trend, achieving a compound annual growth rate (CAGR) of

approximately 1.35% from FY 2017-18 to FY 2024-25.

2.3.5 Rationale for growth rate of respective category-wise consumers is discussed below:

a) **Domestic Consumers (LT + HT):** Over the past 3 years, there has been an average increase of around 6.5% in overall domestic consumers, indicating strong growth. Thus, growth rate of 6.33% and 1.91% considered as per 3-year and 2-year CAGR for Domestic LT and Domestic HT category respectively. Accordingly, sales in this category for FY 2024-25 is escalated on a year-to-year basis to project the sales for the Control period FY 2025-26 to FY 2029-30.

b) **Non-Domestic Consumers (LT+ HT):** Growth rate of 5.27% and 3.37% considered as per 2-year CAGR for Non-domestic LT and Non-domestic HT category respectively. Accordingly, in this category for FY 2024-25 is escalated on a year-to-year basis to project the sales for the Control period FY 2025-26 to FY 2029-30.

c) **Large Supply:** An exponential growth rate of 6.62% has been observed in last 1 years vis-à-vis 3.9% over last 3 years. Thus, growth rate of 6.62% is has been considered as per 1-year CAGR for Large supply category. Accordingly, in this category for FY 2024-25 is on a year-to-year basis to project the sales for the Control period FY 2025-26 to FY 2029-30.

d) **Medium Supply:** Sales have seen a dip in this category over the last 2 years. However, given the recovery trend of economic activity post COVID, a nominal growth rate of 1% is applied over the sales of FY 2024-25 to project the sales for each year of the Control period FY 2025-26 to FY 2029-30.

e) **Small Power:** The category witnessed a growth of nearly 5.93% in FY 2024-25 over the last year. Given the recovery trend of economic activity, a growth rate of 5.93% (viz. 1-year CAGR) is being applied over the sales of FY 2024-25 to project the sales for each year of the Control period FY 2025-26 to FY 2029-30.

f) **Agriculture:** Sales have almost been stagnant across the agriculture category. Further, since there is little impetus for growth across this category (owing to demography), in this category for FY 2024-25 is escalated based on a nominal growth rate of 1% only on a year-to-year basis to project the sales for the Control period FY 2025-26 to FY 2029-30.

g) **Public Lighting:** The sales have seen a decreasing trend owing to conversion to LED lights. However, such trend is in recovery growth rate as 2-year CAGR is -2.3%

which has decreased to around -0.1% CAGR. Thus, a nominal growth rate of 1% is applied over the sales of FY 2024-25 to project the sales for each year of the Control period FY 2025-26 to FY 2029-30

h) **Bulk Supply:** Bulk Supply has not seen any decision-centric trend in the recent past and has retained the levels as existed during the pre-covid times. Therefore, 2-year CAGR (0.94%) escalation is considered over the sales for FY 2024-25 on a year-to-year basis to project the sales for the Control period FY 2025-26 to FY 2029-30.

i) **Others Temporary Supply:** The temporary supply connections and sales are not expected to follow any definite pattern and may increase or decrease on a year-on-year basis. For the purpose of projections, 1-year CAGR growth rate of 5.31% has been considered.

j) **EV Charging station:** Given the emphasis of the Govt. of India on adoption of green vehicles, it is expected that this category will see an eccentric increase in sales during the control period. While the sales quantum during FY 2024-25 was a mere 0.66 MUs, it is anticipated that this category shall witness doubling of sales every year in the control period FY 2025-26 to FY 2029-30.

2.3.6 There may be a requirement for creating more categories going forward as there are other industries with a specific nature of requirement, forms of consumptions like Data Centres, IT ES Industries, SEZs, Group housing societies etc. Petitioner seeks liberty to analyze the growth potential under such categories and seek appropriate revisions going forward.

2.3.7 Furthermore, along with considering historical data using category-wise CAGR for projecting the energy sold for FY 2025-26 to FY 29-30 of the MYT control period, the Petitioner has also evaluated various other factors which may result in anticipated change in consumption patterns wherever possible, as stated below.

2.3.8 The Government of India launched the PM Surya Ghar: Muft Bijli Yojana on 13.02.2024, aimed at installing rooftop solar plants in 1 Crore households. This scheme has provided a fillip to installation of rooftop solar systems in the area of supply served by the Discom. Since the launch of PM-Surya Ghar Yojana, 1,350+ applications have been received by the DISCOM, and 640+ households have benefited. Additionally, the program has successfully achieved the solar rooftop target set for government buildings.

2.3.9 The Administration of Chandigarh also notified the Chandigarh Electric Vehicle Policy – 2022, launched on September 20th, 2022, which aims to make Chandigarh a 'Model EV City' by achieving high penetration of zero-emission vehicles. The policy's mission is to promote the adoption of electric vehicles (EVs) across all segments, including e-bicycles, e-2Ws, e-cars, e-autos, e-goods carriers, and e-buses, with key objectives to reduce air pollution and greenhouse gas emissions, provide financial incentives to early adopters, establish a robust EV charging infrastructure, and conduct awareness programs. As of March 2025, significant progress has been made with an increase in EV adoption, development of multiple charging stations, and successful public awareness campaigns, contributing to Chandigarh's goal of becoming carbon neutral by 2030. In accordance with the above, the Petitioner has considered a significant increase in the number of consumers and sales in this category.

2.3.10 The Chandigarh Master Plan 2031 outlines a development strategy focusing on sustainable growth, environmental preservation, and urban integration. It aims to promote balanced growth while preserving the city's unique character and heritage, ensuring environmental sustainability through green belts, increased forest cover, and eco-sensitive zones. The plan integrates peripheral areas with the main city, enhancing the road network for better connectivity and traffic management. It includes infrastructure development to support residential, commercial, institutional, and recreational needs, providing amenities to improve residents' quality of life. Major proposals include maintaining existing land use frameworks, designating areas for various uses in the periphery, creating green belts, developing a Wildlife Corridor, and allocating areas for slum rehabilitation and future expansion. The plan also focuses on integrating the road network within the periphery with the existing system and proposing new roads and transportation facilities. Implementation will be phased, with a regulatory framework guiding construction and land use, and community involvement ensuring inclusive planning. The overall goal is to create a sustainable, integrated, and well-planned urban environment that meets future needs while preserving Chandigarh's heritage and natural beauty. However, the approval for the Chandigarh Master Plan dates back to 2015 which makes it outdated as per current scenario. The potential development of an IT park has not been factored into the projections for this Control Period, as discussions with the relevant stakeholders indicate that such development is not expected within the next five years. Additionally, the impact of a metro/ rapid transport system has not been considered, as the Detailed Project Report (DPR) for the metro is yet to be prepared.

making the likelihood of its implementation by 2030 uncertain. Consequently, the Chandigarh Master Plan 2031 has not been incorporated into the sales projections.

2.3.11 While the average demand growth over 5-7 years has been only 2-2.5% (as also considered by the CEA in its 20th EPS and Resource Adequacy projections for Chandigarh), given the robust increase as seen in FY 2023-24 and 2024-25, as well as the expected economic growth @ 7-8% p.a., it has been considered appropriate to consider the future projections based on recent growth rates rather than 5-7 year CAGRs.

2.3.12 Based on the above discussions and rationale of growth rate, the projections for the control period are given below:

Table 5: Category-wise Sales proposed for the Control Period (MU)

S.N.	Category/ Slab	FY 25	CAGR considered	FY 26	FY 27	FY 28	FY 29	FY 30
1	Domestic LT	825	6.33%	876.7	932.2	991.2	1,053.9	1,120.5
2	Domestic HT	29	1.91%	29.1	29.6	30.2	30.8	31.4
3	Commercial LT	254	5.27%	267.8	281.9	296.7	312.4	328.9
4	Commercial HT	284	3.37%	293.4	303.3	313.5	324.1	335.0
5	Bulk Supply	86	0.94%	87.0	87.8	88.6	89.5	90.3
6	Temp Supply	6	5.31%	6.0	6.4	6.7	7.0	7.4
7	Public Lighting	15	1.00%	15.4	15.5	15.7	15.8	16.0
8	Agriculture	1	1.00%	1.35	1.36	1.37	1.38	1.39
9	Large Supply	131	6.62%	139.5	148.7	158.6	169.1	180.3
10	Medium Supply	96	1.00%	96.5	97.5	98.5	99.5	100.5
11	Small Power	19	5.93%	19.9	21.1	22.4	23.7	25.1
12	EV Charging Station	0.66	100.00%	1.3	2.7	5.3	10.6	21.3
	Grand Total	**1,746**		**1,834**	**1,928**	**2,029**	**2,138**	**2,258**

2.4 Forecasting of number of consumers

2.4.1 Actual category-wise number of consumers for the past 8 years is provided in the table given below:

Table 6: Actual Category-wise No. of Consumers for FY 2017-18 to FY 2024-25 (Nos.)

SN.	Category/ Slab	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25
1	Domestic LT		194,477	197,519	198,235	200,874	201,435	201,927	202,052
2	Domestic HT	-	81	75	71	65	66	66	71
	Domestic Total	*212,499*	*194,558*	*197,594*	*198,306*	*200,939*	*201,501*	*201,993*	*202,123*
3	Commercial LT		24,158	25,351	25,706	26,144	26,559	26,872	27,153
4	Commercial HT	-	445	424	469	439	451	457	489
	Commercial Total	*25,942*	*24,603*	*25,775*	*26,175*	*26,583*	*27,010*	*27,329*	*27,642*
5	Bulk Supply	637	587	425	531	519	622	474	374
6	Temp Supply	386	357	1,308	448	458	285	314	434

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SN.	Category/ Slab	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25
7	Public Lighting	1,168	1,217	548	1,411	1,514	1,586	1,563	1,568
8	Agriculture	124	122	122	120	289	128	122	120
9	Large Supply	97	127	98	95	96	110	112	92
10	Medium Supply	1,305	1,394	1,311	1,443	1,248	1,490	1,420	1,454
11	Small Power	1,281	1,418	1,270	1,460	1,337	1,540	1,524	1,559
12	EV Charging Station	-	-	-	-	1	1	13	39
	Grand Total	**243,439**	**224,383**	**228,451**	**229,989**	**232,984**	**234,273**	**234,864**	**235,405**

2.4.2 For FY 2022-23 to FY 2024-25, the number of consumers is considered based on the provisional data, made available to the Petitioner from various sources as mentioned above.

2.4.3 Based on the past data, the category wise CAGR of past 1 to 7 years of each consumer category are calculated based on actual data and as deemed appropriate growth rate for each category has been considered as discussed below.

2.4.4 Below table shows the growth rate considered for each category after observing CAGR for the respective years:

Table 7. Growth rate proposed for Category-wise No. of Consumers (%)

SN.	Category/ Slab	7Y	6Y	5Y	4Y	3Y	2Y	1Y
1	Domestic LT	-0.7%	0.6%	0.5%	0.5%	0.2%	0.2%	0.1%
2	Domestic HT		-2.2%	-1.1%	0.0%	3.0%	3.7%	7.6%
3	Commercial LT	0.9%	2.0%	1.4%	1.4%	1.3%	1.1%	1.0%
4	Commercial HT		1.6%	2.9%	1.0%	3.7%	4.1%	7.0%
5	Bulk Supply	-7.3%	-7.2%	-2.5%	-8.4%	-10.3%	-22.5%	-21.1%
6	Temp Supply	1.7%	3.3%	-19.8%	-0.8%	-1.8%	23.4%	38.2%
7	Public Lighting	4.3%	4.3%	23.4%	2.7%	1.2%	-0.6%	0.3%
8	Agriculture	-0.5%	-0.3%	-0.3%	0.0%	-25.4%	-3.2%	-1.6%
9	Large Supply	-0.8%	-5.2%	-1.3%	-0.8%	-1.4%	-8.5%	-17.9%
10	Medium Supply	1.6%	0.7%	2.1%	0.2%	5.2%	-1.2%	2.4%
11	Small Power	2.8%	1.6%	4.2%	1.7%	5.3%	0.6%	2.3%
12	EV Charging Station					239.1%	524.5%	200.0%

2.4.5 Rationale for consumer growth rate of respective categories is discussed below:

a) **Domestic Consumers (LT + HT):** There has been a continuous increase in number of consumers in this category. Driven by the growth in sales consideration as discussed in preceding section, it is expected that the consumer growth trajectory would mimic the sales growth trajectory. Accordingly, the number of consumers as on FY 2024-25 (March) is projected by taking 5Y CAGR of 0.45% for Domestic HT and 2Y CAGR of 3.72% for Domestic HT for arriving at year-on-year projection of number of consumers for each year of the control period FY 2025-26 to FY 2029-30.

b) **Non-Domestic Consumers (LT+ HT):** The 2Y CAGR for Non-domestic LT and Non-domestic HT is 1.11% and 4.13% respectively. In alignment with the increasing trend in sales across both LT and HT categories (Non-domestic), CPDL considers the escalation rate of 1.11% for LT and 4.13% HT category for arriving at year-on-year projection of number of consumers for each year of the control period FY 2025-26 to FY 2029-30.

c) **Large Supply:** There has been dip in number of consumers as per 2Y CAGR. However, driven by the increase in sales in this category in the recent past, a nominal escalation of 2% is considered for arriving at year-on-year projection of number of consumers for each year of the control period FY 2025-26 to FY 2029-30.

d) **Medium Supply:** No. of consumers have seen a dip in this category for all CAGRs. However, given the recovery trend of economic activity post covid, 1-year CAGR growth rate of 2.39% is applied over the no. of consumers of FY 2024-25 (in alignment with escalation rate of sales) for making the projections for each year of the Control period FY 2025-26 to FY 2029-30.

e) **Small Power:** There has been a nominal increase in the number of consumers with 1Y CAGR of 2.30%. CPDL considers the said escalation over the FY 2024-25 numbers for projecting the number of consumers for each year of the control period FY 2025-26 to FY 2029-30.

f) **Agriculture:** There has been a nominal decrease in the number of consumers with 4Y CAGR of 0.00%. In alignment with the decreasing sales during the control period, CPDL considers the said escalation (0.00%) over the FY 2024-25 numbers for projecting the number of consumers for each year of the control period FY 2025-26 to FY 2029-30.

g) **Public Lighting:** Public Lighting categories have been seeing a steady increase in number of connections throughout the years under consideration. Accordingly, CPDL considers the 1Y CAGR (-0.32%) over the FY 2024-25 numbers for projecting the number of consumers for each year of the control period FY 2025-26 to FY 2029-30.

h) **Bulk Supply:** As discussed in the sales forecast section, Bulk Supply category has not seen any decision centric trend in the recent past although number of consumers has gone down on an overall basis compared to FY 2018-19 numbers. As has been the general approach, no escalation is considered over the number of consumers for FY 2024-25 on a year-to-year basis for making the projections for the Control period FY 2025-26 to FY 2029-30.

i) **Others Temporary Supply:** 1% growth is considered for projection purposes across this category. Further, the temporary supply connections are not expected to follow any definite pattern and may increase or decrease on year-on-year basis.

j) **EV Charging station:** Given the emphasis of the Govt. of India on adoption of green vehicles, it is expected that this category will see an eccentric increase in offtake during the control period. While the number of consumers as of FY 2024-25 is measly low, a reasonable escalation of 100% is considered over the FY 2024-25 numbers for making the projections for the Control period FY 2025-26 to FY 2029-30.

2.4.6 Furthermore, along with considering category-wise CAGR while projecting the number of consumers for FY 2025-26 to FY 29-30 of the MYT control period, the Petitioner has also considered anticipated change on consumption patterns wherever possible, as a result of the major changes that are encompassing Distribution Licensees across the country.

2.4.7 Based on above, category wise number of consumer projection is as below:

Table 8: Category-wise No. of Consumers proposed for the Control Period (Nos.)

SN.	Category/ Slab	FY 25	CAGR considered	FY 26	FY 27	FY 28	FY 29	FY 30
1	Domestic LT	202,052	0.45%	202,971	203,894	204,821	205,753	206,689
2	Domestic HT	71	3.72%	74	77	80	83	86
3	Commercial LT	27,153	1.11%	27,455	27,760	28,069	28,381	28,697
4	Commercial HT	489	4.13%	509	530	552	575	599
5	Bulk Supply	374	0.00%	374	374	374	374	374
6	Temp Supply	434	1.00%	438	442	446	450	455
7	Public Lighting	1,568	0.32%	1,573	1,578	1,583	1,588	1,593
8	Agriculture	120	0.00%	120	120	120	120	120
9	Large Supply	92	2.00%	94	96	98	100	102
10	Medium Supply	1,454	2.39%	1,489	1,525	1,562	1,599	1,637
11	Small Power	1,559	2.30%	1,595	1,632	1,669	1,707	1,746
12	EV Charging Station	39	100.0%	78	156	312	624	1,248
	Grand Total	**235,405**		**236,770**	**238,184**	**239,686**	**241,354**	**243,346**

2.5 Forecasting of Load

2.5.1 Actual category-wise connected load for the past 8 years is provided in the table given below

Table 9 Actual Category-wise Connected Load for FY 2017-18 to FY 2024-25 (KW)

SN.	Category/ Slab	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25
1	Domestic LT	909,069	896,687	903,470	875,935	888,134	899,313	909,903	917,100
2	Domestic HT				34,394	32,635	32,987	32,987	33,776
3	Commercial LT	446,005	454,578	453,294	220,617	225,961	230,755	234,605	238,224
4	Commercial HT				271,038	247,334	261,398	263,199	264,122
5	Bulk Supply	42,253	42,053	41,653	41,671	41,291	42,302	41,245	40,332
6	Temp. Supply	2,191	32,529	2,587	2,136	1,502	12,816	2,839	3,118
7	Public Lighting	6,756	4,911	4,583	4,697	4,538	4,536	4,569	4,577
8	Agriculture	843	835	834	853	1,179	979	936	920
9	Large Supply	69,431	69,231	68,639	67,983	69,425	74,916	76,539	68,509
10	Medium Supply	72,362	76,548	69,572	78,758	69,138	81,967	78,227	80,087
11	Small Power	19,717	22,321	21,368	23,702	21,909	25,099	24,946	24,569
12	EV Charging Station	-	-	-	-	3.81	50.00	916.00	2,535
	Grand Total	**1,568,627**	**1,599,693**	**1,566,000**	**1,621,783**	**1,603,051**	**1,667,118**	**1,670,910**	**1,677,869**

2.5.2 Based on the past data, the category wise CAGR of past 1 to 7 years of each consumer category are calculated and as deemed appropriate growth rate for each category has been considered as discussed below.

2.5.3 Below table shows growth rate considered for each category after observing CAGR for respective years:

Table 10 Growth rate considered for Category-wise Connected Load (%)

Category/ Slab	7Y	6Y	5Y	4Y	3Y	2Y	1Y
Domestic LT	0.6%	1.0%	1.0%	1.2%	1.1%	1.0%	0.8%
Domestic HT				-0.5%	1.2%	1.2%	2.4%
Commercial LT	1.7%	1.7%	2.1%	1.9%	1.8%	1.6%	1.5%
Commercial HT				-0.6%	2.2%	0.5%	0.4%
Bulk Supply Total	-0.7%	-0.7%	-0.6%	-0.8%	-0.8%	-2.4%	-2.2%
Temp Supply	5.2%	-32.4%	3.8%	9.9%	27.6%	-50.7%	9.8%
Public Lighting	-5.4%	-1.2%	0.0%	-0.6%	0.3%	0.5%	0.2%
Agriculture	1.3%	1.6%	2.0%	1.9%	-7.9%	-3.1%	-1.7%
Large Supply	-0.2%	-0.2%	0.0%	0.2%	-0.4%	-4.4%	-10.5%
Medium Supply	1.5%	0.8%	2.9%	0.4%	5.0%	-1.2%	2.4%
Small Power	3.2%	1.6%	2.8%	0.9%	3.9%	-1.1%	-1.5%
EV Charging Station					773.3%	612.0%	176.7%

2.5.4 Rationale for load growth rate of respective category-wise consumers is discussed below:

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a) **Domestic Consumers (LT + HT):** There has been an increasing trend in connected load of domestic category on a y-o-y basis. Since growth is in alignment with the sales and no. of consumers, it is trite that the connected load will also escalate considering the similar trend. Accordingly, 4Y CAGR of 1.15% and 1Y CAGR of 2.39% are considered for the Domestic LT and Domestic HT category respectively and applied over the FY 2024-25 Connected Load to project the Connected load for the Control period FY 2025-26 to FY 2029-30.

b) **Non-Domestic Consumers (LT+ HT):** There has been an increasing trend in connected load of Non-domestic category on a y-o-y basis. As in the case of the domestic category, the growth is in alignment with the sales and no. of consumers; therefore, it is imperative that the connected load be also escalated considering the similar trend. Accordingly, 2Y CAGR of 1.61% and 0.52% are considered for the Non-Domestic LT and Non-Domestic HT category respectively and applied over the FY 2024-25 Connected Load to project the Connected load for the Control period FY 2025-26 to FY 2029-30.

c) **Large Supply:** The connected load across this category has been more or less stagnant over the last few years. However, to quantify the growth in connected load, a CAGR of 1.00% is being considered. Accordingly, the connected load for FY 2024-25 is being escalated on a year-to-year basis to project the connected load for the Control period FY 2025-26 to FY 2029-30.

d) **Medium Supply:** While the sales are projected to increase at a nominal rate of 1% across this category, it seems unlikely that there will be an increase in the connected load across this category. Further, the 2Y CAGR is -1.1%, which is not in alignment with the projection of sales in this category. Therefore, based on the recent trend, 1Y CAGR of 2.38% growth rate is considered in this category for projecting the connected load for each year of the Control period FY 2025-26 to FY 2029-30.

e) **Small Power:** CPDL has considered a 4Y CAGR of 0.90% for projecting the connected load for the Control period FY 2025-26 to FY 2029-30 in alignment with the increasing trend through these years.

f) **Agriculture:** There has been a nominal decrease in the connected load with 2Y CAGR of -3.06%. In alignment with the decreasing sales during the control period, CPDL considers the nominal escalation of 0.50% over the FY 2024-25 numbers for making the projections for each year of the control period FY 2025-26 to FY 2029-30.

g) **Public Lighting:** Given the transitioning to LED being completed, the connected load is not expected to witness a steep variation. Driven by the general trend, a 2Y CAGR

of 0.45% is considered over FY 2024-25 actuals for making the projections for each year of the control period FY 2025-26 to FY 2029-30.

h) **Bulk Supply:** As discussed in the preceding sections, Bulk Supply category has not seen any decision centric trend in the recent past despite the connected load having gone down on an overall basis compared to FY 2018-19 numbers. In alignment with the sales and no. of consumers forecast, a nominal 0.50% escalation is considered over the FY 2024-25 numbers for making the projections for the Control period FY 2025-26 to FY 2029-30.

i) **Others Temporary Supply:** Based on the recent trend, 1Y CAGR of 9.83% growth is considered for projection purposes across this category. Further, the temporary supply connections are not expected to follow any definite pattern and may increase or decrease on a year-on-year basis.

2.5.5 Furthermore, along with considering the category-wise CAGR for projecting the Connected Load for FY 2025-26 to FY 29-30 of the MYT control period, the Petitioner has also considered anticipated change on consumption patterns wherever possible, as a result of the major changes that are encompassing Distribution Licensees across the country.

2.5.6 Based on above analysis and facts, the category wise connected load projection is as below:

Table 11. Category-wise Connected Load proposed for the Control Period (KW)

SN.	Category/ Slab	FY 25	CAGR considered	FY 26	FY 27	FY 28	FY 29	FY 30
1	Domestic LT	917,100	1.15%	927,690	938,402	949,238	960,200	971,287
2	Domestic HT	33,776	2.39%	34,584	35,411	36,258	37,126	38,014
3	Commercial LT	238,224	1.61%	242,049	245,935	249,884	253,896	257,972
4	Commercial HT	264,122	0.52%	265,495	266,875	268,262	269,656	271,057
5	Bulk Supply	40,332	0.50%	40,534	40,736	40,940	41,145	41,350
6	Temp Supply	3,118	9.83%	3,424	3,761	4,131	4,536	4,982
7	Public Lighting	4,577	0.45%	4,598	4,619	4,640	4,661	4,682
8	Agriculture	920	0.50%	925	929	934	939	943
9	Large Supply	68,509	1.00%	69,194	69,886	70,585	71,291	72,004
10	Medium Supply	80,087	2.38%	81,992	83,942	85,938	87,982	90,075
11	Small Power	24,569	0.90%	24,791	25,014	25,240	25,467	25,697

SN.	Category/ Slab	FY 25	CAGR considered	FY 26	FY 27	FY 28	FY 29	FY 30
12	EV Charging Station	2,535	40.00%	3,549	4,969	6,956	9,738	13,634
	Grand Total	**1,677,869**		**1,698,824**	**1,720,479**	**1,743,005**	**1,766,636**	**1,791,698**

2.6 Forecasts as per new Tariff Structure Guidelines

2.6.1 The Hon'ble Commission has issued the JERC (Retail Supply Tariff Structure) Guidelines, 2024 on 12.12.2024 ("***Tariff Guidelines 2024***") in terms of Electricity Act, 2003 read with Regulation 83 of the Tariff Regulations, 2024. The Hon'ble Commission had introduced these Guidelines to rationalize the retail tariff structure to have simplified and uniform consumer categories/ sub-categories and tariff structure. In terms of these Tariff Guidelines, 2024, the Hon'ble Commission has revised the consumer categories and sub-categories.

2.6.2 The Hon'ble Commission under the Tariff Regulations 2024, as specified as under:

> *"8.5 The Business Plan filed by Distribution Licensee shall inter-alia contain:*
>
> ...
>
> *d) Sales Forecast for each Consumer category and sub-categories(slab-wise) for each Year of the Control Period in accordance with Regulation 8.7;"*

2.6.3 To comply with the provisions of the Tariff Guidelines 2024 and to forecast sales for the Control Period as per the Tariff Guidelines 2024, Petitioner has adopted a multi-pronged approach as under:

a) The consumer master database for FY 2024-25 has been used to allocate the consumers as per the categorization and sub-categorization as defined by the Tariff Guidelines 2024.

b) **LTDS-I:** In line with the applicability defined in the Tariff Guidelines 2024, the Petitioner has segregated consumers in the existing Domestic category with connected load not exceeding 250 W and maximum consumption of 100 units per month from the consumer master database.

c) **LTDS-II and LTDS-III:** The Hon'ble Commission had allocated domestic premises, government residential quarters and common facilities in residential multistoried apartments/buildings with sanctioned/contracted load up to 85 kW/100 kVA under LTDS-II while part of domestic premises being used for small shops, clinics, homestays, etc., under LTDS-III. However, the consumer master

database does not have due categorization on type of use as defined by the Tariff Guidelines 2024. Petitioner proposes to initiate consumer indexing, details of which are provided in the capital investment plan for the perusal of the Hon'ble Commission. However, such categorization cannot be made prospectively in the existing consumer master database. Therefore, 95% of consumption, number of consumers and connected load in the existing Domestic-LT category (after adjusting for due segregation under LTDS-I sub-category above) is assumed under LTDS-II while the remainder is assumed under LTDS-III.

d) **NDS:** The Tariff Guidelines 2024 categorize Non-Domestic consumers into 5 sub-categories, i.e., NDS-I, NDS-II, NDS-III, NDS-IV and NDS-V on type of use. However, the existing consumer master database does not include due categorization on type of use. While the Petitioner shall ensure such details are incorporated in the consumer master database in the future on completion of proposed consumer indexing, the Petitioner has allocated consumption, number of consumers and connected load as under:

- 50% of consumption, connected load and number of consumers under existing Commercial-LT category has been allocated under NDS-I
- 30% of consumption, connected load and number of consumers under existing Commercial-LT category has been allocated under NDS-II
- 10% of consumption, connected load and number of consumers under existing Commercial-LT category has been allocated under NDS-III
- 5% of consumption, connected load and number of consumers under existing Commercial-LT category has been allocated under NDS-IV and NDS-V categories respectively.

Furthermore, it is proposed to continue with single-phase and three-phase segregation within the new tariff sub-categories to avoid tariff shocks to certain set of consumers. It is also submitted that due assumptions have also been made to allocate billing determinants among the proposed slabs as under:

- 70% of consumption, connected load and number of consumers within NDS-I has been allocated to NDS-I (Single-Phase) slab with the remaining 30% being allocated to NDS-I (Three-Phase) slab

- 30% of consumption, connected load and number of consumers within NDS-II has been allocated to NDS-II (Single-Phase) slab with the remaining 70% being allocated to NDS-II (Three-Phase) slab
- 30% of consumption, connected load and number of consumers within NDS-III has been allocated to NDS-III (Single-Phase) slab with the remaining 70% being allocated to NDS-III (Three-Phase) slab
- 50% of consumption, connected load and number of consumers within NDS-IV has been allocated to NDS-IV (Single-Phase) slab with the remaining 50% being allocated to NDS-IV (Three-Phase) slab
- 90% of consumption, connected load and number of consumers within NDS-V has been allocated to NDS-V (Single-Phase) slab with the remaining 5% being allocated to NDS-V (Three-Phase) slab

e) **LTAS-I, LTAS-II and LTAS-III**: As per the applicability as defined by the Tariff Guidelines 2024, the consumers under existing Agriculture category have been duly categorized under LTAS-I, LTAS-II and LTAS-III.

f) **LTIS**: The Industrial consumers in existing tariff structure with contract demand <85 kW/ 100 kVA are duly categorized under LTIS-I. Further, it is proposed to segregate LTIS-I into 2 sub-categories: (a) Consumers below 20 KVA and (b) Consumers above 20 KVA to avoid tariff shock for Small Industrial consumers supply in existing tariff structure.

g) **LTPS-I, LTPS-II**: As per the JERC Retail Supply Tariff Structure Guidelines 2024, based on the applicability of public utility services, the existing Public Lighting category is segregated into LTPS-I and LTPS-II.

h) **LTPS-III**: As per the applicability defined by the Tariff Guidelines 2024, the existing consumers under Bulk Supply category with connected load <85 kW are allocated to LTPS-III category as per new tariff structure

i) **HTS-I**: The existing HT Domestic consumers are allocated to HTS-I category as per new tariff structure.

j) **HTS-II**: The existing HT Commercial consumers are allocated to HTS-II category as per new tariff structure.

k) **HTS-IV**: All existing Industrial consumers in existing tariff structure with a contract demand >100 kVA and < 5000 kVA are allocated to HTS-IV.

l) **HTS-V**: All existing consumers categorized under Bulk Supply category as per existing tariff structure with a contract demand >100 kVA and <5000 kVA

m) **EHTS-I**: All existing HT Commercial consumers with contract demand exceeding 5000 kVA are categorized to EHTS-I category

n) **EHTS-II**: All existing large supply consumers of Industrial Category as per existing tariff structure with contract demand exceeding 5000 kVA are allocated to EHTS-II category as per new tariff structure

o) **EHTS-III**: All Bulk Supply consumers as per existing tariff structure with a contract demand exceeding5000 kVA are categorized to EHTS-III category as per new tariff structure

p) Additionally, it was also observed that presently, various consumers are billed under LT tariff while due applicability under the Tariff Guidelines 2024 would define such consumers to be billed under HT categories. To ensure that the provisions of the Tariff Guidelines 2024 are complied with, due adjustments are made to relevant consumption in LT, HT and EHT categories.

2.6.4 The Petitioner has faced various challenges related to availability of data in the consumer master database as per the applicability and type of use defined in the Tariff Guidelines 2024. At the same time, the Petitioner is committed to complying with the provisions of the Tariff Guidelines 2024 and therefore has used data as available with it obtained on a best effort basis, as detailed above. Wherever data is not available, the Petitioner has made various assumptions as illustrated above. Once the Petitioner completes the proposed consumer indexing, due changes will be reflected in the consumer master database which would enable recording of billing determinants as per the applicability, categorization and sub-categorization as defined in the Tariff Guidelines 2024.

2.6.5 As the Petitioner gains greater understanding of the prevailing ground realities and is more conversant with the socio-economic factors prevailing in the Union Territory, the Petitioner requests leave of the Hon'ble Commission to make revised

submissions during the course of these proceedings or at any time during the Control Period, including at the time of True-up and Mid-Term Review.

2.6.6 In view of the same, the Petitioner humbly requests the Hon'ble Commission to consider the forecast of energy sales, number of consumers and connected load for the Control Period from FY 2025-26 to FY 2029-30 as illustrated in the table below:

Table 12. Energy sales for the Control Period (MU)

SN	Category/ Slab	FY 26	FY 27	FY 28	FY 29	FY 30
A	**LT Supply**	**1,257**	**1,332**	**1,412**	**1,500**	**1,598**
1	**Domestic (DS)**	**872**	**927**	**986**	**1,048**	**1,114**
1.1	**LTDS-I**	**3**	**3**	**4**	**4**	**4**
1.2	**LTDS-II**	**825**	**877**	**933**	**992**	**1,055**
	0-100	15	16	17	18	19
	100-200	62	66	70	75	79
	200-300	79	84	89	95	101
	300-400	79	84	89	95	101
	Above 400	590	628	667	709	754
1.3	**LTDS-III**	**43**	**46**	**49**	**52**	**56**
	0-100	1	1	1	1	1
	100-200	3	3	4	4	4
	200-300	4	4	5	5	5
	300-400	4	4	5	5	5
	Above 400	31	33	35	37	40
2	**Non-Domestic Services (NDS)**	**250**	**264**	**277**	**292**	**307**
2.1	**NDS-I**	**125**	**132**	**139**	**146**	**154**
	NDS-I (Single Phase)					
	0-100	1	1	1	1	1
	101-200	2	2	2	2	3
	Above 200	85	89	94	99	104
	NDS-I (Three Phase)					
	0-100	0	0	0	1	1
	101-200	1	1	1	1	1
	Above 200	36	38	40	42	45
2.2	**NDS-II**	**75**	**79**	**83**	**88**	**92**
	NDS-II (Single Phase)					
	0-100	0	0	0	0	0
	101-200	1	1	1	1	1
	Above 200	22	23	24	25	27
	NDS-II (Three Phase)					
	0-100	1	1	1	1	1
	101-200	1	1	1	1	2
	Above 200	51	53	56	59	62
2.3	**NDS-III**	**25**	**26**	**28**	**29**	**31**
	NDS-III (Single Phase)	8	8	8	9	9
	NDS-III (Three Phase)	18	18	19	20	22
2.4	**NDS-IV**	**13**	**13**	**14**	**15**	**15**
	NDS-IV (Single Phase)	6	7	7	8	8
	NDS-IV (Three Phase)	6	7	7	8	8

SN	Category/ Slab	FY 26	FY 27	FY 28	FY 29	FY 30
2.5	**NDS-V**	**13**	**13**	**14**	**15**	**15**
	NDS-V (Single Phase)	12	13	13	14	15
	NDS-V (Three Phase)	1	1	1	1	1
3	**Agricultural Services (AS)**	**1**	**1**	**1**	**1**	**1**
3.1	LTAS-I	1	1	1	1	1
3.2	LTAS-II	0	0	0	0	0
3.3	LTAS-III	0	0	0	0	0
4	**Industrial Services (LTIS)**	**108**	**113**	**118**	**123**	**129**
4.1	**LTIS**	**108**	**113**	**118**	**123**	**129**
	LTIS-1 (Small Power)	18	19	20	21	22
	LTIS-II (Medium Power)	90	94	98	102	107
5	**Public Utility Services**	**24**	**24**	**24**	**25**	**25**
5.1	LTPS-I	8	8	8	8	8
5.2	LTPS-II	8	8	8	8	8
5.3	LTPS-III	9	9	9	9	9
6	**Electric Vehicle Charging Station**	**1**	**3**	**5**	**11**	**21**
6.1	LTEV-I	1	3	5	11	21
B	**HT**	**358**	**369**	**381**	**394**	**407**
7.1	HTS-I	34	35	36	37	38
7.2	HTS-II	238	246	254	263	272
7.3	HTS-III	-	-	-	-	-
7.4	HTS-IV	47	49	51	54	56
7.5	HTS-V	39	40	40	40	41
7.6	HTS-VI	-	-	-	-	-
C	**EHT**	**213**	**221**	**229**	**237**	**245**
8.1	EHTS-I	75	80	85	90	96
8.2	EHTS-II	101	105	110	115	121
8.3	EHTS-III	39	40	40	40	41
D	**Temporary Supply**	**6**	**6**	**7**	**7**	**7**
	Total	1,834	1,928	2,029	2,138	2,258

Table 13. No. of consumers considered for the Control Period (MU)

SN	Category/ Slab	FY 26	FY 27	FY 28	FY 29	FY 30
A	**LT Supply**	**235,111**	**236,486**	**237,947**	**239,574**	**241,522**
1	**Domestic (DS)**	**202,915**	**203,838**	**204,764**	**205,696**	**206,632**
1.1	**LTDS-I**	**5,956**	**5,983**	**6,010**	**6,038**	**6,065**
1.2	**LTDS-II**	**187,111**	**187,962**	**188,816**	**189,676**	**190,538**
	0-100	30,117	30,254	30,392	30,530	30,669
	100-200	39,520	39,700	39,881	40,062	40,244
	200-300	30,433	30,572	30,711	30,850	30,991
	300-400	21,582	21,680	21,779	21,878	21,978
	Above 400	65,458	65,755	66,054	66,355	66,657
1.3	**LTDS-III**	**9,848**	**9,893**	**9,938**	**9,983**	**10,028**
	0-100	1,585	1,592	1,600	1,607	1,614
	100-200	2,080	2,089	2,099	2,109	2,118
	200-300	1,602	1,609	1,616	1,624	1,631

SN	Category/ Slab	FY 26	FY 27	FY 28	FY 29	FY 30
	300-400	1,136	1,141	1,146	1,151	1,157
	Above 400	3,445	3,461	3,477	3,492	3,508
2	**Non-Domestic Services (NDS)**	**27,276**	**27,579**	**27,886**	**28,196**	**28,510**
2.1	**NDS-I**	**13,638**	**13,790**	**13,943**	**14,098**	**14,255**
	NDS-I (Single Phase)					
	0-100	2,468	2,495	2,523	2,551	2,579
	101-200	1,351	1,366	1,381	1,396	1,412
	Above 200	5,728	5,792	5,856	5,922	5,987
	NDS-I (Three Phase)					
	0-100	1,058	1,069	1,081	1,093	1,105
	101-200	579	585	592	598	605
	Above 200	2,455	2,482	2,510	2,538	2,566
2.2	**NDS-II**	**8,183**	**8,274**	**8,366**	**8,459**	**8,553**
	NDS-II (Single Phase)					
	0-100	635	642	649	656	663
	101-200	347	351	355	359	363
	Above 200	1,473	1,489	1,506	1,523	1,540
	NDS-II (Three Phase)					
	0-100	1,481	1,497	1,514	1,531	1,548
	101-200	810	819	829	838	847
	Above 200	3,437	3,475	3,514	3,553	3,592
2.3	**NDS-III**	**2,728**	**2,758**	**2,789**	**2,820**	**2,851**
	NDS-III (Single Phase)	818	827	837	846	855
	NDS-III (Three Phase)	1,909	1,931	1,952	1,974	1,996
2.4	**NDS-IV**	**1,364**	**1,379**	**1,394**	**1,410**	**1,426**
	NDS-IV (Single Phase)	682	689	697	705	713
	NDS-IV (Three Phase)	682	689	697	705	713
2.5	**NDS-V**	**1,364**	**1,379**	**1,394**	**1,410**	**1,426**
	NDS-V (Single Phase)	1,296	1,310	1,325	1,339	1,354
	NDS-V (Three Phase)	68	69	70	70	71
3	**Agricultural Services (AS)**	**120**	**120**	**120**	**120**	**120**
3.1	LTAS-I	69	69	69	69	69
3.2	LTAS-II	26	26	26	26	26
3.3	LTAS-III	26	26	26	26	26
4	**Industrial Services (LTIS)**	**2,787**	**2,853**	**2,919**	**2,987**	**3,056**
4.1	**LTIS**	2,787	2,853	2,919	2,987	3,056

SN	Category/ Slab	FY 26	FY 27	FY 28	FY 29	FY 30
	LTIS-1 (Small Power)	1,441	1,475	1,510	1,545	1,581
	LTIS-II (Medium Power)	1,346	1,377	1,410	1,442	1,476
5	**Public Utility Services**	**1,935**	**1,940**	**1,945**	**1,950**	**1,955**
5.1	LTPS-I	787	789	792	794	797
5.2	LTPS-II	787	789	792	794	797
5.3	LTPS-III	362	362	362	362	362
6	**Electric Vehicle Charging Station**	**78**	**156**	**312**	**624**	**1,248**
6.1	LTEV-I	78	156	312	624	1,248
B	**HT**	**1,112**	**1,145**	**1,179**	**1,215**	**1,251**
7.1	HTS-I	130	133	137	140	144
7.2	HTS-II	680	703	727	751	777
7.3	HTS-III	-	-	-	-	-
7.4	HTS-IV	296	303	310	317	325
7.5	HTS-V	6	6	6	6	6
7.6	HTS-VI	-	-	-	-	-
C	**EHT**	**108**	**111**	**113**	**116**	**119**
8.1	EHTS-I	8	8	8	8	9
8.2	EHTS-II	95	97	99	102	104
8.3	EHTS-III	5.97	5.97	5.97	5.97	5.97
D	**Temporary Supply**	**438**	**442**	**446**	**450**	**455**
	Total	**236,770**	**238,184**	**239,686**	**241,354**	**243,346**

Table 14 Connected load considered for the Control Period (kW)

SN	Category/ Slab	FY 26	FY 27	FY 28	FY 29	FY 30
A	**LT Supply**	**1,234,374**	**1,251,318**	**1,269,035**	**1,287,755**	**1,307,798**
1	**Domestic (DS)**	**922,384**	**933,035**	**943,809**	**954,707**	**965,732**
1.1	**LTDS-I**	**895**	**906**	**916**	**927**	**938**
1.2	**LTDS-II**	**875,414**	**885,522**	**895,748**	**906,091**	**916,554**
	0-100	100,266	101,424	102,595	103,779	104,978
	100-200	115,150	116,480	117,825	119,186	120,562
	200-300	112,060	113,354	114,663	115,987	117,326
	300-400	92,531	93,600	94,680	95,774	96,880
	Above 400	455,407	460,665	465,985	471,366	476,809
1.3	**LTDS-III**	**46,074**	**46,606**	**47,145**	**47,689**	**48,240**
	0-100	5,277	5,338	5,400	5,462	5,525
	100-200	6,061	6,131	6,201	6,273	6,345
	200-300	5,898	5,966	6,035	6,105	6,175
	300-400	4,870	4,926	4,983	5,041	5,099
	Above 400	23,969	24,246	24,526	24,809	25,095
2	**Non-Domestic Services (NDS)**	**225,694**	**229,318**	**233,000**	**236,741**	**240,542**
2.1	**NDS-I**	**112,847**	**114,659**	**116,500**	**118,370**	**120,271**
	NDS-I (Single Phase)					

SN	Category/ Slab	FY 26	FY 27	FY 28	FY 29	FY 30
	0-100	8,224	8,356	8,490	8,626	8,765
	101-200	4,657	4,731	4,807	4,885	4,963
	Above 200	66,112	67,174	68,252	69,348	70,462
	NDS-I (Three Phase)					
	0-100	3,525	3,581	3,639	3,697	3,756
	101-200	1,996	2,028	2,060	2,093	2,127
	Above 200	28,334	28,789	29,251	29,721	30,198
2.2	**NDS-II**	**67,708**	**68,795**	**69,900**	**71,022**	**72,162**
	NDS-II (Single Phase)					
	0-100	2,115	2,149	2,183	2,218	2,254
	101-200	1,197	1,217	1,236	1,256	1,276
	Above 200	17,000	17,273	17,551	17,832	18,119
	NDS-II (Three Phase)					
	0-100	4,934	5,014	5,094	5,176	5,259
	101-200	2,794	2,839	2,884	2,931	2,978
	Above 200	39,667	40,304	40,951	41,609	42,277
2.3	**NDS-III**	**22,569**	**22,932**	**23,300**	**23,674**	**24,054**
	NDS-III (Single Phase)	6,771	6,880	6,990	7,102	7,216
	NDS-III (Three Phase)	15,799	16,052	16,310	16,572	16,838
2.4	**NDS-IV**	**11,285**	**11,466**	**11,650**	**11,837**	**12,027**
	NDS-IV (Single Phase)	5,642	5,733	5,825	5,919	6,014
	NDS-IV (Three Phase)	5,642	5,733	5,825	5,919	6,014
2.5	**NDS-V**	**11,285**	**11,466**	**11,650**	**11,837**	**12,027**
	NDS-V (Single Phase)	10,720	10,893	11,067	11,245	11,426
	NDS-V (Three Phase)	564	573	582	592	601
3	**Agricultural Services (AS)**	**925**	**929**	**934**	**939**	**943**
3.1	LTAS-I	531	533	536	539	541
3.2	LTAS-II	197	198	199	200	201
3.3	LTAS-III	197	198	199	200	201
4	**Industrial Services (LTIS)**	**74,308**	**75,518**	**76,751**	**78,008**	**79,290**
4.1	**LTIS**	**74,308**	**75,518**	**76,751**	**78,008**	**79,290**
	LTIS-1 (Small Power)	17,251	17,532	17,818	18,110	18,408
	LTIS-II (Medium Power)	57,056	57,985	58,932	59,898	60,882
5	**Public Utility Services**	**7,515**	**7,550**	**7,586**	**7,622**	**7,658**
5.1	LTPS-I	2,299	2,309	2,320	2,330	2,341
5.2	LTPS-II	2,299	2,309	2,320	2,330	2,341

SN	Category/ Slab	FY 26	FY 27	FY 28	FY 29	FY 30
5.3	LTPS-III	2,917	2,932	2,946	2,961	2,976
6	**Electric Vehicle Charging Station**	**3,549**	**4,969**	**6,956**	**9,738**	**13,634**
6.1	**LTEV-I**	**3,549**	**4,969**	**6,956**	**9,738**	**13,634**
B	**HT**	**335,179**	**338,110**	**341,083**	**344,205**	**347,375**
7.1	HTS-I	39,890	40,779	41,688	42,618	43,570
7.2	HTS-II	244,196	245,619	247,052	248,495	249,948
7.3	HTS-III	-	-	-	-	-
7.4	HTS-IV	32,284	32,810	33,346	33,892	34,449
7.5	HTS-V	18,808	18,902	18,997	19,092	19,187
7.6	HTS-VI	-	-	-	-	-
C	**EHT**	**125,846**	**127,290**	**128,757**	**130,248**	**131,764**
8.1	EHTS-I	37,653	37,873	38,094	38,316	38,540
8.2	EHTS-II	69,385	70,515	71,666	72,840	74,037
8.3	EHTS-III	18,808.30	18,902.34	18,996.85	19,091.84	19,187.30
D	**Temporary Supply**	**3,424**	**3,761**	**4,131**	**4,536**	**4,982**
	Total	1,698,824	1,720,479	1,743,005	1,766,636	1,791,698

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3. Distribution and AT&C Losses

3.1 Regulatory Provision

3.1.1 Regulation 8.5(f) of the Tariff Regulations, 2024 provides that the Business Plan shall inter-alia contain distribution loss, as under:

"8.5. The Business Plan filed by Distribution Licensee shall inter-alia contain:

....

*f). **Performance Targets items such as distribution loss,** reliability indexes (SAIFI, SAID & MAIFI), transformer failure rate and any other parameter for quality of supply for each Year of the Control Period consistent with the Capital Investment Plan proposed by the Distribution Licensee;"* ***[Emphasis added]***

3.1.2 Regulation 10.1 of the Tariff Regulations, 2024 specifies as under:

*"10.1 The Commission, while approving the Business Plan and/or Multi Year Tariff Petition, may **stipulate a trajectory for certain variables**, including but not limited to Auxiliary consumption, Station Heat Rate, Transmission Availability, O&M expenses, **AT&C losses,** Reliability Indices & Quality of Power etc."* ***[Emphasis added]***

3.2 Trajectory for Distribution Losses

(i) **Factual Background**

3.2.1 The Hon'ble Commission had determined the Distribution Loss trajectory for EWEDC to be achieved during the Control Period FY 2019-20 to FY 2021-22 and FY 2022-23 to FY 2024-25 in its Business Plan Orders dated 26.11.2018 and 11.07.2022, respectively. It is pertinent to note that the Distribution Loss trajectory for the Control Period FY 2019-20 onwards was based on the Distribution Losses for FY 2017-18 i.e. 9.51%.

3.2.2 EWEDC in its Business Plan Petition dated August 2018 [Refer Para 8.3 to 8.8] for the Control Period FY 2019-20 to FY 2021-22 had categorically submitted that the loss for FY 2017-18 i.e. 9.51% was unusually low due to one-time extraordinary adjustment (of banking power of 48 MUs related to FY 2015-16 & FY 2016-17 to J&K which were accounted in FY 2017-18). Thus, EWEDC requested the Hon'ble Commission not to consider the said adjustment and adopt the reasonable loss trajectory by maintaining T&D loss targets at 13.25% in FY 2018-19, 13.05% in FY 2019-20, 12.85% in FY 2020-21 & 12.65% in FY 2021-22 respectively. However,

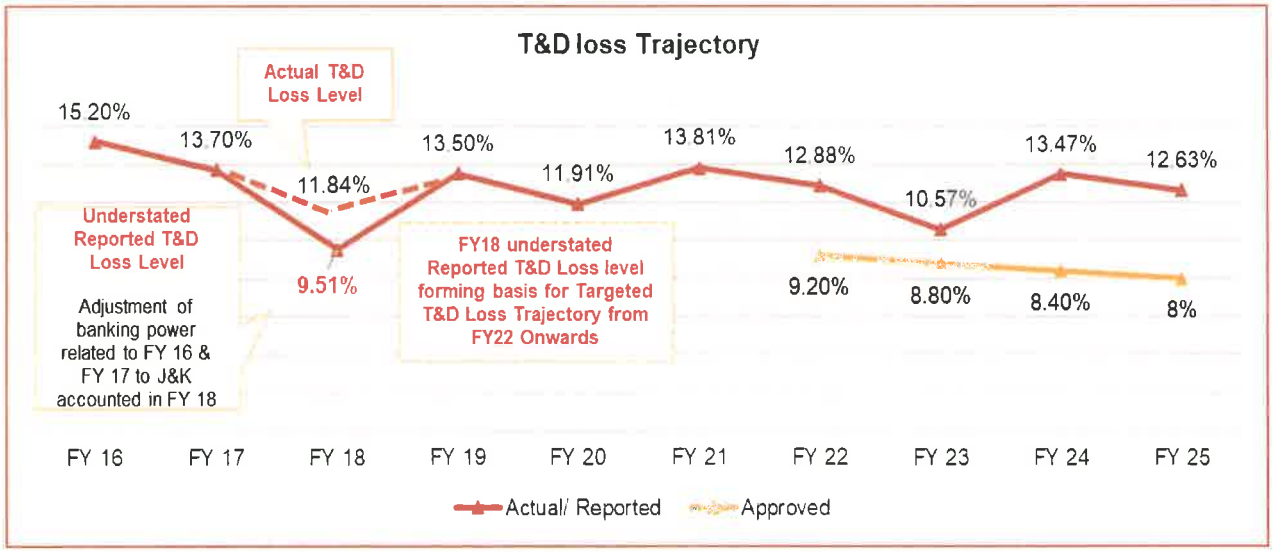
the Hon'ble Commission in its Business Plan Order dated 12.11.2018 considered the actual T&D loss level of FY 2017-18 as 9.51% for determining the loss trajectory for the MYT Control Period starting with 9.40% for FY 2019-20, 9.30% for FY 2020-21 and 9.20% for FY 2021-22.

3.2.3 Further, the Hon'ble Commission in its Order dated 11.07.2022 approved the trajectory of distribution losses for the Control Period FY 2022-23 to FY 2024-25 based on the target of 9.20% approved for FY 2021-22. Accordingly, the target of distribution losses for FY 2024-25 had been approved as 8.00%.

3.2.4 Due to the above reasons, there has been a significant difference between the actual/ reported distribution losses of EWEDC vis-à-vis the loss targets approved by the Hon'ble Commission.

3.2.5 The EWEDC's actual distribution loss vis-à-vis approved by the Hon'ble Commission is as shown below:

Figure 2. Distribution losses of EWEDC



**Losses till FY 2021-22 are as Trued-Up by the Hon'ble Commission. Figures for FY 2022-23 onwards are based on available information and subject to True-Up by the Hon'ble Commission*

3.2.6 Clause 3.2 (a) of the Draft Policy Directions under Section 108 of the Electricity Act issued by the Administrator, UT Chandigarh, as part of the privatisation process of EWEDC stated:

"The T&D loss targets to be adopted for ARR and tariff determination for the following five (5) financial years shall be as provided below:

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	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
T&D loss	9.20%	8.80%	8.40%	8.00%	7.60%

..."

3.2.7 Clause 4.2 (a) of the Final Policy Directions issued on 07.02.2025 provides that:

"The T&D loss targets to be adopted for ARR and tariff determination for the following years shall be as provided below:

	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
T&D loss	NA	NA	NA	8.00%	7.60%

..."

3.2.8 As evident from the above, the loss targets in the Final Policy Directions (07.02.2025) are premised on the loss targets in the Draft Policy Directions, which in turn were based on the loss reduction trajectory approved by the Hon'ble Commission for FY 2021-22 till FY 2024-25 with FY 2025-26 loss reduction being extrapolated considering the same 0.40% loss reduction over FY 2024-25 loss level as had been considered for the previous years.

3.2.9 In this context, Petitioner is seeking to highlight the discrepancy in the loss trajectory of 9.20% approved for FY 2021-22 which was based on understated loss level of 9.51% reported as achieved for FY 2017-18, as explained above.

3.2.10 The above discrepancy is corroborated by the yearly actual losses reported in the Information Memorandum published along with the RFP as presented below, clearly bringing out the fact that the reported losses of 9.51% in FY 2017-18 were understated.

"Extract of Table 5 of Information Memorandum

Parameter	FY 16	FY 17	FY 18	FY 19
T&D Loss Actual	15.2%	13.7%	9.51%	13.5%

...."

3.2.11 As evident from Information Memorandum, while the EWEDC T&D Losses were in the range of 13%-15% in the period FY 2015-16 to FY 2018-19, the incorrectly reported Loss levels for FY 2017-18 were made the basis for a steeply lower T&D Loss Reduction Trajectory, starting with 9.40% for FY 2019-20, 9.30% for FY 2020-21 and 9.20% for FY 2021-22.

3.2.12 As indicated in the figure 2 above, the corrected (excluding one-time adjustment of banking for previous years) T&D losses for FY 2017-18 were ~11.84%.

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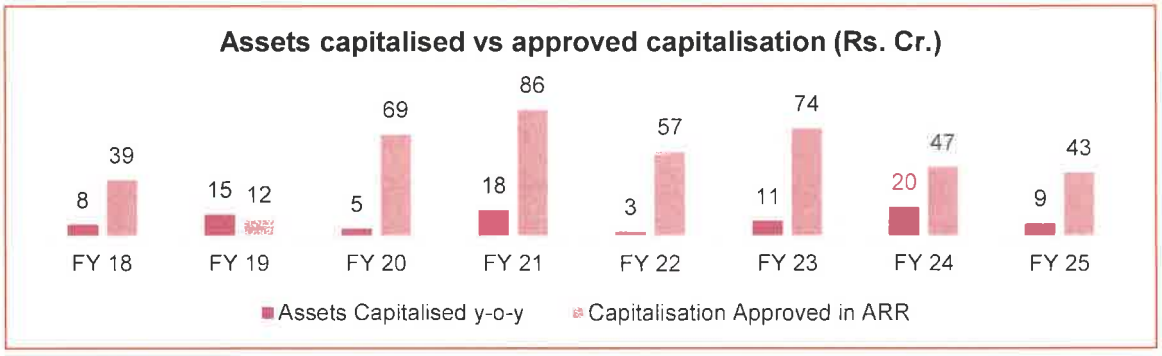
3.2.13 As such, EWEDC was underachieving the Commission's stipulated T&D loss targets in the past. One of the contributing factor to this situation appears to be the limited capital expenditure by the EWEDC over the past 7-8 years as reflected in the analysis below:

Figure 3: Assets Capitalized vs Approved Capitalization for EWEDC (Rs. Cr.)



3.2.14 The above graph illustrates that the actual capitalization over the past 7-8 years has been significantly lower than the levels approved by the Hon'ble Commission. In fact, the Hon'ble Commission has on several occasions expressed its concerns and emphasized the importance of undertaking capital expenditure activities to improve service quality and target 24x7 supply to all consumers and directed EWEDC to ensure that the capitalization targets approved are completed in the Control Period. Relevant excerpts from the latest Tariff Order dated 25.07.2024 are reproduced as under:

> ***"10.1.6. Non-achievement of capitalization target***
>
> ....
>
> *Commission's Response:*
>
> *The Commission directs the Petitioner to increase its efforts towards undertaking capital expenditure activities as envisaged in Business Plan Order to improve the service quality and target 24x7 supply to all consumers. Further, the Petitioner is directed to ensure that the capitalization targets approved are completed in the MYT Period"*

3.2.15 Considering the above, CPDL respectfully requests the Hon'ble Commission to to take into account the discrepancies in the reported loss levels, deficit in capitalization and other challenges detailed hereinabove, which were attributable to EWEDC and could not have been attributed to the Petitioner. Moreover, the Petitioner also could not take steps in this regard, as there was a stay operating against privatization since 01.12.2020 by the Hon'ble High Court, which was finally dismissed on 06.11.2024 after four years. During this period, EWEDC continued to operate the distribution business with minimal capitalization as highlighted in the Tariff Order dated

25.07.2024. Thereafter, the Hon'ble Supreme Court by Order dated 02.12.2024 was pleased to dismiss the SLP against the Judgment dated 06.11.2024. It is only after that the Transfer Scheme was notified on 31.01.2025 and the Petitioner took charge of the distribution business on 01.02.2025. As such, the above circumstances were beyond the control of the Petitioner. Apart from the above challenges, inter-alia include inherited infrastructure deficiencies, delays in executing necessary upgrades, and external factors affecting operational efficiency.

3.2.16 Moreover, it is humbly submitted that the Hon'ble Commission, in its Tariff Order dated 16.07.2011 had directed EWEDC to get an Energy Audit through an accredited agency to assess actual technical and commercial losses, as under:

> *"The ED Chandigarh is directed to get an Energy Audit conducted through an accredited agency to assess actual technical and commercial losses. Based on the studies, ED Chandigarh shall propose reduction of losses in subsequent years.*
>
> *The investment required to reduce the losses be included in the investment plan for augmentation of T&D system to be submitted to the Commission. Effective technical and administrative measures shall be taken to reduce the commercial losses. The action plan for energy audit and loss reduction measures shall be furnished to the Commission by 30th September 2012."*

3.2.17 Over the years, the Hon'ble Commission had reiterated these Directions for Energy Audit Reports for previous years in the Tariff Order for FY 2024-25 dated 25.07.2024, relevant extract of which is reproduced below:

> ***"Commission's Response***
>
> *The Commission has noted with serious concern that the Petitioner is yet to submit the Energy Audit Reports for previous years despite repeated directions. The Commission directs the Petitioner to submit the consultant's report as soon as its prepared and meanwhile submit quarterly report of the action plan within one month of issuance of this Order and complete the Annual Energy Audit of the UT on priority."*

3.2.18 The Bureau of Energy Efficiency notified the Bureau of Energy Efficiency (Manner and Intervals for Conduct of Energy Audit (Accounting) in Electricity Distribution Companies) Regulations 2021 wherein Discoms have been mandated to conduct an annual energy audit for every financial year. It is submitted that Discoms across the country have prepared annual energy audit reports in line with the provisions of the above-mentioned regulations. These reports assume salience as the energy audit enables the Discoms to identify and quantify energy losses, theft and develop strategies for loss reduction, which further enables Discoms to improve operational efficiency and enable the provision of improved consumer services.

3.2.19 The absence of duly certified energy audit reports is a major tailwind affecting the operations of the Petitioner subsequent to the takeover of operations in the license area.

3.2.20 In view of these constraints, CPDL requests the Hon'ble Commission to consider the actual loss level achieved during FY 2024-25 (12.63% based on latest provisional information available with CPDL) for determining the distribution loss trajectory for the MYT Control Period FY 2025-26 to FY 2029-30.

3.2.21 In this context, in March'2025, the Petitioner had also approached CEA, Technical expert body under Ministry of Power, requesting it to undertake the assessment of baseline distribution losses for CPDL and sought its technical guidance on the short-term and long-term infrastructure requirements. Accordingly, based on the energy input verified from Deviation Settlement Accounts of NRPC and energy billed CEA worked out the distribution losses of 12.63% for FY 2024-25. Further, in May 2025, CEA team conducted field inspections of substations and key network elements of CPDL to validate system conditions and asset health. Based on its assessment, Based on its assessment, CEA has observed that the existing old/overloaded network/system condition, old metering system in Chandigarh and existing technical operational inefficiencies are contributing higher than normal distribution losses in Chandigarh system.

3.2.22 Further, the Petitioner respectfully submits that in the absence of realistic distribution loss trajectory for the Control Period FY 2025-26 to FY 2029-30, the financial viability of CPDL shall be considerably impacted which shall hamper its ability to provide quality and reliable power supply along with world class services to its consumers. It is pertinent to note that the National Tariff Policy, 2016 urges the need for balancing the commercial viability of the distribution licensees and consumer interests. Clause 8 of the National Tariff Policy, 2016 is reproduced below:

> *"Making the distribution segment of the industry efficient and solvent is the key to success of power sector reforms and provision of services of specified standards. Therefore, the* ***Regulatory Commissions need to strike the right balance between the requirements of the commercial viability of distribution licensees and consumer interests****. Loss making utilities need to be transformed into profitable ventures which can raise necessary resources from the capital markets to provide services of international standards to enable India to achieve its full growth potential."*
>
> ***[Emphasis added]***

3.2.23 Moreover, in order to ensure financial sustainability of the distribution companies, the Ministry of Power, vide its Electricity (Second Amendment) Rules, 2023 dated 26.07.2023, has notified the "Framework for Financial Sustainability" for distribution

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licensees according to which the Aggregate Technical and Commercial loss reduction trajectory to be approved by the State Commissions for tariff determination shall be in accordance with the trajectory agreed by the respective State Governments and approved by the Central Government under any national scheme or programme, **or otherwise**. Infact the National Tariff Policy [Clause 5.11 h) 2)] also provides for determination of Revenue Requirement and improvement trajectories at "relaxed levels" instead of "desired levels".

3.2.24 Most State Electricity Regulatory Commissions (SERCs) have re-aligned the AT&C loss targets based on the actual/ realistic loss levels as observed in the table below:

Table 15. Re-alignment of distribution loss trajectories by various State Commissions (%)

SN.	Discoms	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25
1	ED Andaman & Nicobar	14.34	13.84	13.34	15.91	-	-
2	North Bihar	15.00	15.00	15.00	15.00	15.00	16.17
3	CSPDCL (Chhattisgarh)	14.73	13.96	14.22	13.97	-	-
4	JPDCL (Jammu)	15.00	15.00	15.00	26.00	23.00	-
5	KPDCL (Kashmir)	15.00	15.00	15.00	35.00	27.00	-
6	LPDD (Ladakh)	15.00	15.00	15.00	32.00	29.43	-
7	MSEDCL (Maharashtra)	12.00	18.00	16.00	14.00	13.00	12.00
8	PSPCL (Punjab)	11.54	11.24	10.94	12.04	12.30	12.30
9	DVVNL (UP)	12.10	11.80	11.33	10.90	10.52	14.20
10	MVVNL (UP)	11.80	11.51	11.04	10.63	10.26	14.20
11	PaVVNL (UP)	11.80	11.51	11.04	10.63	10.26	11.48
12	PuVVNL (UP)	12.20	11.83	11.36	10.93	10.55	13.98

**The cells highlighted in the above table indicate the year from which the State Commission had re-aligned the trajectory based on actual/ realistic losses*
Source: Tariff Orders issued by various SERCs

(ii) **Determination of Loss Targets for FY 2025-26 to FY 2029-30:**

3.2.25 In order to determine the loss reduction trajectory for the MYT Control Period FY 2025-26 to FY 2029-30, the Petitioner submits that over the last 9 years, EWEDC was able to reduce the losses from 15.20% to 12.63%, which works out to an annual average reduction of 0.29% only.

3.2.26 In the RFP for privatisation of the EWEDC, the trajectory for T&D losses was initially set for 5 years, i.e., from FY 2021-22 to FY 2025-26 based on the loss reduction trajectory approved by the Hon'ble Commission upto FY 2024-25 in its Business Plan Orders for EWEDC.

3.2.27 While EEDL emerged as successful bidder in May 2021, due to the then ongoing litigation, the asset handover could only get effected vide Transfer Scheme dated

31.01.2025, i.e. with a delay of almost 4 years. As a direct result of this delay, EWEDC continued to operate the distribution business during the intervening period (FY 2021-22 to 31.01.2025).

3.2.28 The following regulatory principles have been considered while formulating the proposed T&D loss and AT&C loss trajectory for the Control Period FY 2025-26 to FY 2029-30:

❖ **Principle 1 – Material deviation of actual baseline from pre-bid assumptions**

- At the time of takeover (01.02.2025), the actual distribution loss level stood at 12.63%, significantly higher than the RFP target of 8.00% for FY 2024–25. This gap is attributable entirely to the performance of the erstwhile utility, EWEDC, prior to transfer. The inherited system condition therefore materially deviates from the assumptions made at the time of bidding and policy formulation, justifying a re-calibration of the starting baseline for performance evaluation.

❖ **Principle 2 – Avoidance of dual disincentivisation for legacy underperformance**

- Clause 4.4(a) of the Government Policy Direction clearly provides that the impact of true-up of previous years upto the Transfer Date as determined and directed by the Hon'ble Commission, shall be borne by the Holding Entity, i.e., the Union Territory (UT) of Chandigarh. Accordingly, the historical underperformance of EWEDC in the years preceding the operational takeover should not be attributed to the Successor entity (Petitioner) nor should it influence the baseline for setting future targets.
- As of FY 2024-25, the actual (provisional) T&D loss stood at 12.63%, against a target of 8.00%, resulting in a deviation of 4.63%. If this deviation is not factored in and the target of 7.60% for FY 2025-26 remains unchanged, the new Licensee (Petitioner) would be unjustly penalized for legacy inefficiencies that occurred entirely under the control of the erstwhile DISCOM and are not attributable to the Petitioner for reasons stated hereinabove.
- Clause 4.2(d) of the Government Policy Directions provides that *"T&D loss trajectory and the mechanism for sharing of gains or losses from FY 2026-27 onwards shall be set by the Commission"*

❖ **Principle 3 – Enabling sustained investment and improved consumer service**

- CPDL, the new licensee, is committed to undertaking significant capital investments in infrastructure, metering, and operational efficiency, as detailed in the Capital Investment Plan. These initiatives are designed not only to reduce losses but also to enhance reliability, billing accuracy, and overall consumer experience. A realistic and phased loss reduction trajectory is essential to ensure that these investments yield sustainable benefits without compromising operational viability or consumer interests.

3.2.29 Based on the above principles as also the facts and circumstances, we respectfully pray that the Hon'ble Commission may be pleased to consider the provisions of the Electricity Act as well as its powers under Tariff Regulations, 2024 and kindly:

(i) Recognise the actual distribution loss level of 12.63% as the baseline at the time of operational takeover (FY 2024-25) for the purpose of determining the Distribution Loss trajectory and AT&C loss trajectory for the Control Period FY 2025-26 to FY 2029-30;

(ii) Recognise the force majeure conditions (delay in hand over, increase in loss level in the interim etc.) so that legacy loss gaps up to the Transfer Date are not factored into the Successor's/ CPDL's performance assessment or disincentivisation;

(iii) Approve a realistic, achievable AT&C loss reduction trajectory for the Control Period

FY 2025-26 to FY 2029-30, that reflects:

- The actual conditions inherited at the time of takeover;
- The intend of Section 61 of the Electricity Act 2003;
- The consumer interest in receiving improved, efficient, and affordable electricity service without penalizing the Petitioner.

3.2.30 Hence, it is proposed that the distribution loss target for FY 2025–26 be revised upward by 4.63% *[deviation in actual performance of EWEDC during FY 2024-25*], i.e. from 7.60% to 12.23%, to ensure that the performance benchmarks are fair, rational, and reflective solely of the CPDL's operational tenure. Further, annual reduction of 0.40% may be considered for FY 2026-27 to FY 2029-30 in line with the loss reduction proposed in the RFP, and also trajectory approved by the Hon'ble Commission from FY 2022-23 to FY 2024-25 for the previous MYT Period.

3.2.31 Consequently, the Distribution loss trajectory for the MYT Period of FY 2026-30 may kindly be approved as follows:

Table 16. Proposed Distribution Loss trajectory of CPDL

SN	Particular	FY 2024-25 Provisional	FY 2025-26 Proposed	FY 2026 27 Proposed	FY 2027-28 Proposed	FY 2028-29 Proposed	FY 2029-30 Proposed
1	Distribution Losses	12.63%	12.23%	11.83%	11.43%	11.03%	10.63%
2	*Y-o-Y reduction (%)*	-	*-0.40%*	*-0.40%*	*-0.40%*	*-0.40%*	*-0.40%*

3.2.32 It is also pertinent to note that once the distribution licensees achieve a distribution loss of <15%, an annual loss reduction of 0.25% to 0.50% is reasonable. As observed in the Table below, for Utilities with distribution losses below 15%, an annual reduction of 0.25% to 0.50% has been approved by the respective State Commissions while determining the tariffs.

Table 17. Approved distribution losses of various Discoms and y-o-y reduction (%)

SN.	Discom		Y1	Y2	Y3	Y4	Y5
1.	PGVCL (Gujarat)	Approved losses (%)	16.00	15.75	15.50	-	-
		Y-o-Y reduction (%)		*-0.25*	*-0.25*	-	-
2.	KSEBL (Kerala)	Approved losses (%)	12.42	12.02	11.62	11.22	10.82
		Y-o-Y reduction (%)		*-0.4*	*-0.4*	*-0.4*	*-0.4*
3.	East Discom (MP)	Approved losses (%)	16.00	15.75	15.5	15.25	15
		Y-o-Y reduction (%)		*-0.25*	*-0.25*	*-0.25*	*-0.25*
4.	West Discom (MP)	Approved losses (%)	15.00	14.00	14.75	14.5	14.25
		Y-o-Y reduction (%)		*-1.00*	*0.75*	*-0.25*	*-0.25*
5.	UPCL (Uttarakhand)	Approved losses (%)	14.25	14.00	13.75	13.5	13.25
		Y-o-Y reduction (%)		*-0.25*	*-0.25*	*-0.25*	*-0.25*
6.	DVVNL (UP)	Approved losses (%)	12.10	11.8	11.33	10.9	10.52
		Y-o-Y reduction (%)		*-0.3*	*-0.47*	*-0.43*	*-0.38*
7.	MVVNL (UP)	Approved losses (%)	11.80	11.51	11.04	10.63	10.26
		Y-o-Y reduction (%)		*-0.29*	*-0.47*	*-0.41*	*-0.37*
8.	PaVVNL (UP)	Approved losses (%)	11.80	11.51	11.04	10.63	10.26
		Y-o-Y reduction (%)		*-0.29*	*-0.47*	*-0.41*	*-0.37*

SN.	Discom		Y1	Y2	Y3	Y4	Y5
9.	PuVVNL (UP)	Approved losses (%)	12.20	11.83	11.36	10.93	10.55
		Y-o-Y reduction (%)		*-0.37*	*-0.47*	*-0.43*	*-0.38*
10.	PSPCL (Punjab)	Approved losses (%)	11.54	11.24	10.94	12.04	12.30
		Y-o-Y reduction (%)		*-0.3*	*-0.3*	*1.1*	*0.26*

Source: Respective SERC's Tariff Orders

3.2.33 The Petitioner submits that to accurately determine the extant distribution loss, the Discom has initiated audit/assessment of baseline distribution loss. Furthermore, as submitted in the earlier paragraphs, energy audit has long been pending with the Hon'ble Commission also issuing a Directive in this regard. Moreover, provisional distribution loss of 12.63% for FY 2024-25 has been estimated on the basis of available information. Thus, the Petitioner has proposed distribution loss reduction trajectory for the Control Period on the basis of its preliminary understanding of the distribution network, provisional distribution loss for FY 2024-25 and capital investment proposed in the Business Plan for the Control Period from FY 2025-26 to FY 2029-30. Thus, the Petitioner requests the leave of the Hon'ble Commission to make revised submissions in the interest of justice during the proceedings of the Business Plan, or at any time during the Control Period w.r.t actual/audited information for FY 2024-25.

3.3 Trajectory for Collection Efficiency

3.3.1 Considering that the Hon'ble Commission in Regulation 77.1 of Tariff Regulations 2024 has provided for provision for bad and doubtful debts upto 1% of the ARR, the Petitioner has proposed the collection efficiency of 99% for the MYT Control Period FY 2025-26 to FY 2029-30 as tabulated below:

Table 18. Proposed collection efficiency trajectory of CPDL

SN	Particular	FY 2025-26	FY 2026 27	FY 2027-28	FY 2028-29	FY 2029-30
1	Collection Efficiency	99%	99%	99%	99%	99%

3.4 Trajectory for AT&C losses

3.4.1 Keeping in view of the above submissions, the Petitioner prays before the Hon'ble Commission that the distribution losses and AT&C losses for the upcoming Control period FY 2025-26 to FY 2029-30 be approved as shown hereunder:

Table 19. Proposed AT&C Loss trajectory of CPDL

SN.	Particular	FY 2025-26 Proposed	FY 2026 27 Proposed	FY 2027-28 Proposed	FY 2028-29 Proposed	FY 2029-30 Proposed
1	Distribution Losses	12.23%	11.83%	11.43%	11.03%	10.63%
2	Collection Efficiency	99%	99%	99%	99%	99%
3	AT&C loss	13.11%	12.72%	12.32%	11.92%	11.53%

Table 20. Proposed AT&C Loss computation as per the Tariff Regulations 2024

SN.	Particular	Ref	UoM	FY 2025-26	FY 2026 27	FY 2027-28	FY 2028-29	FY 2029-30
1.	Generation (own as well as any other connected generation net after deducting auxiliary consumption) within area of supply of Distribution licensee.	A	MU	16	19	21	22	23
2.	Input energy (metered Import) received at interface point of Distribution licensee's network	B	MU	2,074	2,168	2,270	2,381	2,504
3.	Input energy (metered Export) by the Distribution licensee at interface points of Distribution licensee network	C	MU	-	-	-	-	-
4.	Total Energy available for sale within the licensed area to the consumers of the Distribution licensee.	D=A+B-C	MU	2,090	2,187	2,291	2,403	2,527
5.	Energy billed to metered consumers within the licensed area of the Distribution licensee.	E	MU	1,834	1,928	2,029	2,138	2,258
6.	Total Energy Billed	G=E	MU	1,834	1,928	2,029	2,138	2,258
7.	Amount billed to consumers within the licensed area of the Distribution licensee	H	Rs. Cr.	1,075	1,125	1,177	1,234	1,295
8.	Late payment Surcharge	I	Rs. Cr.	-	-	-	-	-
9.	Amount realized by the Distribution licensee out of the amount Billed at H	J	Rs. Cr.	1,065	1,114	1,166	1,221	1,282
10.	Subsidy Amount Received	K	Rs. Cr.	-	-	-	-	-

SN	Particular	Ref	UoM	FY 2025-26	FY 2026 27	FY 2027-28	FY 2028-29	FY 2029-30
11.	Amount realized on account of theft cases	L	Rs. Cr.	-	-	-	-	-
12.	Energy Realized on account of theft cases	M=(LxG) /H	MU	-	-	-	-	-
13.	Collection Efficiency (%)	N= (JI+K+L/ H+K+L) x100	%	99%	99%	99%	99%	99%
14.	Energy Realized by the Distribution licensee.	P=NxG	MU	1,816	1,909	2,008	2,116	2,235
15.	Distribution Loss (%)	Q={(D-G)/D}x100	%	12.23%	11.83%	11.43%	11.03%	10.63%
16.	AT&C Loss (%)	R={(D-(P+M))/D}x100	%	13.11%	12.72%	12.32%	11.92%	11.53%

Chandigarh Power Distribution Ltd. CPDL

4. Power Procurement Plan

4.1 Regulatory Provision

4.1.1 Regulation 8.8 of the Tariff Regulations, 2024 provides the basis for power procurement plan, which is reproduced as follows:

*"**8.8. Power Procurement Plan***

a) The Distribution Licensee shall prepare a plan for procurement of power (in MW/MU) to serve the demand for electricity in its Area of Supply and submit such plan to the Commission for approval as a part of Business Plan:

Provided that such power procurement plan may include long term (more than 5 years), medium-term (above 1 year and upto 5 years) and short-term (upto 1 year) sources of power procurement, in accordance with these Regulations.

b) The power procurement plan of the Distribution Licensee shall comprise of the following:

(i) A quantitative forecast of the unrestricted base load and peak load for electricity within its Area of Supply;

(ii) An estimate of the quantity of electricity supply from the identified sources of power purchase, including own generation, if any;

(iii) Measures proposed for Renewable Purchase Obligation (RPO), energy conservation, energy efficiency, and demand side management;

(iv) An estimate of availability of power to meet the base load and peak load requirement: Provided that such estimate of demand and supply shall be on month-wise basis in Megawatt (MW) as well as expressed in Million Units (MU);

(v) Standards to be maintained with regard to quality and reliability of supply, in accordance with the relevant Regulations of the Commission;

(vi) The requirement for new sources of power procurement, including augmentation of own generation capacity, if any, and identified new sources of supply, based on (i) to (v) above;

(vii) The sources of power, quantity and cost estimates for such procurement:

(viii) The impact of Open Access on load

(ix) Impact of Storage capacities including Batteries, Electric Vehicle charging stations etc.;

Provided that the forecast or estimates contained in the long-term procurement plan shall be separately stated for peak and off-peak periods, in terms of quantities of power to be procured (in MU) and maximum demand (in MW):

Provided further that the forecast or estimates for the Control Period shall be prepare for each month over the Control Period:

Provided also that the long-term/medium-term/short-term procurement plan shall be a least cost plan based on available information regarding costs of various sources of supply;

c) *The forecast or estimate shall be prepared using forecasting techniques based on past data, impact of loss reduction initiatives, improvement in Generating Station Plant Load Factors, overall economic growth, consumption growth of electricity-intensive sectors, advent of competition in the electricity sector and other relevant factors;*

d) *Where the Commission has specified a percentage of the total consumption of electricity in the area of a Distribution Licensee to be purchased from co-generation or renewable sources of energy, the power procurement plan shall include the plan for procurement from such sources at least up to the specified level;*

e) *The Distribution Licensee shall also consult the State Transmission Utility at the time of preparation of the power procurement plan, and shall forward a copy of its power procurement plan to the State Transmission Utility to ensure consistency of such plan with the transmission system plan;*

f) *Every long-term/ medium-term agreement or arrangement for power procurement, including on a Standby basis, by a Distribution Licensee from a Generating Company or Licensee or from another source of supply, and any change to an existing agreement or arrangement shall come into effect only with the prior approval of the Commission: Provided that the prior approval of the Commission shall not be required for purchase of power from Renewable Energy sources at the generic/ preferential tariff determined by the Commission for meeting its Renewable Purchase Obligation (RPO).*

g) *The Distribution Licensee may undertake additional power procurement during the year, over and above the power procurement plan for the Control Period approved by the Commission, where there has been an unanticipated increase in the demand for electricity or a shortfall or failure in the supply of electricity from any approved source of supply during the Year or when the sourcing of power from existing tied-up sources becomes costlier than other available alternative sources.:*

   Provided that any variation, during the first or second block of six months of a Year, in the quantum or cost of power procured, including from a source other than a previously approved source, that is expected to be in excess of five per cent of that approved by the Commission, shall require its prior approval:

   Provided further that the five percent limit shall not apply to variation in the cost of power procured on account of changes in the price of fuel for own generation or the fixed or variable cost of power purchase that is allowed to be recovered through FPPCA mechanism;

h) *The Distribution Licensee may enter into a short-term arrangement or agreement for procurement of power without the prior approval of the Commission when faced with emergency conditions that threaten the stability of the distribution system:*

   Provided that within thirty days from the date of entering into an agreement or arrangement for short-term power procurement for which prior approval is not required, the Distribution Licensee shall submit to the Commission its details, including the quantum, Tariff computations, duration, supplier particulars, method of supplier selection and such other details as the Commission may require so to assess that the conditions specified in this Regulation have been complied with;

i) Where the Commission has reasonable grounds to believe that the agreement or arrangement entered into by the Distribution Licensee does not meet the criteria specified in Regulations 8.8(g) and 8.8(h), it may disallow any increase in the total cost of power procurement over the approved level arising there from or any loss incurred by the Distribution Licensee as a result, from being passed through to consumers."

4.2 Power Purchase Sources

4.2.1 At present, Petitioner is in the process of assessing the power purchase requirements and demand supply scenario to ascertain if there is a requirement to vary the existing allocations for better management of the power purchase portfolio to optimize the power purchase costs while complying with Petitioner's universal supply obligations and other requirements specified by the Hon'ble Commission. This is a time taking process and requires analysis of historical data at various levels. There are also data inaccuracies being faced by Petitioner including not being provided the complete original copies of the Power Purchase Agreements with various generators. Petitioner is in the process of addressing these concerns and streamlining the process. Further, NTPC has also approached Petitioner to execute a fresh PPA for all its stations. Petitioner has sought time from NTPC to analyze the terms and conditions of the fresh PPA and also approach the Hon'ble Commission for necessary directions and approvals, which would be done after the filing of the present Business Plan. In light of the above, based on Petitioner's assessment of the best available information and data, power required for control period would be met through the existing allocations provided to EWEDC from following sources:

- Central Generating Stations (Hydro, Thermal, Nuclear, Gas)
- Within State Generation (Net Metering/Gross Metering Solar Plants)
- Traders/ Open Market/ Short Term and others
- Power Purchase from New/ Upcoming Stations (already tied up by EWEDC)
- Additional tie-ups required to meet peak demand and as per CEA's Resource Adequacy study

a) Share allocation for Central Generating Stations (CGS)

4.2.2 The Petitioner has considered the plant wise share/ allocation from Central Generating Stations as per the latest NRPC allocation order dated 15.04.2025.

4.2.3 The following table shows the capacity share allocation (allocated + unallocated) for Central Generating Stations considered for projecting quantum of power purchase for the next control period.

Table 21. Share of CGS from allocated and unallocated capacity

SN.	Source Type	Plant Name	Plant Capacity (MW)	Chandigarh share	Allocation (MW)	Unallocated Power % share	Unallocated Power (MW)	Total Share (MW)
1	HYDRO NTPC	Koldam Hydro	800	0.79%	6	0.81%	6	13
2		SINGRAULI HYDRO	8	0.00%	-	1.74%	1	1
3	HYDRO NHPC	DULHASTI	390	0.47%	2	1.74%	7	9
4		PARBATI-II	800	0.30%	2	1.74%	14	16
5		PARBATI-III	520	0.60%	3	1.74%	9	12
6		URI II	240	0.63%	2	1.74%	4	6
7		SEWA II	120	0.83%	1	1.74%	2	3
8		CHAMERA III	231	0.60%	1	1.74%	4	5
9		TANAKPUR	94	1.28%	1	0.00%	-	1
10		DHAULIGANGA	280	0.72%	2	1.74%	5	7
11		CHAMERA I	540	3.90%	21	0.00%	-	21
12		CHAMERA II	300	0.67%	2	2.09%	6	8
13		URI	480	0.62%	3	0.00%	-	3
14		SALAL	690	0.27%	2	0.00%	-	2
15		Kishan Ganga	330	0.00%	-	1.74%	6	6
16	THDC	TEHRI	1,000	4.60%	46	1.15%	12	58
17		KOTESHWAR	400	0.36%	1	1.15%	5	6
18	SJVNL	RAMPUR	412	0.00%	-	1.06%	4	4
19		NATHPA JHAKRI	1,500	0.53%	8	1.15%	17	25
		Total Hydro			**104**		**102**	**206**
20	HYDRO BBMB	BBMB 1 LU	Nil	0.00%		0.00 %	4	4
21		BBMB 10 LU	Nil	0.00%		0.00%	41	41
22		Bhakhra	1,433	3.50%	50	0.00%	-	46
23		Dehar	792	3.50%	28	0.00%	-	28
24		Pong	164	3.50%	6	0.00%	-	6
		Total BBMB Hydro			**84**		**45**	**129**

SN.	Source Type	Plant Name	Plant Capacity (MW)	Chandigarh share	Allocation (MW)	Unallocated Power % share	Unallocated Power (MW)	Total Share (MW)
25	APCPL THERMAL	JHAJJAR	1,500	0.00%	-	0.88%	13	13
26	Thermal NTPC	DADRI II	980	0.00%	-	0.42%	4	4
27		UNCHAHAR I	420	0.48%	2	0.15%	1	3
28		UNCHAHAR II	420	0.71%	3	0.46%	2	5
29		UNCHAHAR III	210	0.48%	1	0.45%	1	2
30		UNCHAHAR IV	500	0.84%	4	0.46%	2	6
31		KAHALGAON II	1,500	0.20%	3			3
32		SINGRAULI	2,000	0.00%	-	0.38%	8	8
33		RIHAND III	1,000	0.55%	5	0.46%	5	10
34		RIHAND I	1,000	1.00%	10	0.38%	4	14
35		RIHAND II	1,000	0.80%	8	0.41%	4	12
36		Tanda II	1,320	0.39%	5	0.31%	4	9
37	MUNPL	MEJA I	1,320	0.23%	3	0.87%	12	15
38	NUPPL	Ghatampur	660	0.00%	-	0.80%	5	5
39	THDC	Khurja	660	0.00%	-	1.17%	8	8
		Total Thermal			**45**		**72**	**117**
40	GAS NTPC	DADRI	830	0.61%	5	1.81%	15	20
41		AURIYA	663	0.75%	5	1.73%	12	16
42		ANTA	419	1.19%	5	1.75%	7	12
		Total Gas			**15**		**34**	**49**
43	NUCLEAR NPCIL	RAPP (Unit 5 & 6)-C	440	0.68%	3	2.83%	12	15
44		RAPP (Unit 3 & 4)-B	440	0.00%	-	3.18%	14	14
45		NAPS	440	1.14%	5	1.69%	7	12
46		RAPP-D	305	0.34%	1	0.00%	5	6
		Total Nuclear			**9**		**39**	**48**
47	SECI Wind	Tranche-VI	-		40	-	-	40
		Total			**297**		**292**	**599**

b) Power Purchase from New/ Upcoming Stations (already tied up by EWEDC)

4.2.4 The Petitioner submits that it has no plans for purchase additional power from thermal and gas generating stations. Only a fresh PPA may be proposed to be signed with NTPC which would be to recognize and formalize the existing arrangements with EWEDC and not for any additional allocation of power. In case such a PPA has to be signed or there are any proposals for altering the allocations, the same would be done after undertaking proper analysis and subject to the approval of the Hon'ble Commission. However, the Petitioner is expected to offtake power from a number of Hydro plants and one nuclear plant detailed in the table given below:

Table 22 List of upcoming power plants for power purchase

New Station	Organization	Type	Total capacity (MW)	Allocated Capacity (MW)	Assumed PLF	Actual/ Expected Supply Date
Parbati-II	NHPC	Hydro	800	16	70%	April 2025
Ratle	NHPC	Hydro	850	20	70%	Feb 2026
Subansri	NHPC	Hydro	2000	4	70%	April 2026
RAPP-D	NPCIL	Nuclear	1400	6.4	80%	April 2025

4.2.5 The Petitioner is expected to offtake:

a) 20 MW Power from Ratle HEP (850 MW) starting February 2026. Ratle HEP (850 MW) is a Joint Venture (JV) between NHPC (51%) and JKSPDC (49%) and is a Run of River Scheme located on River Chenab at village Drabshalla, district Kishtwar, UT of Jammu and Kashmir.

b) 16 MW power from Parbati Hydroelectric Project (Stage-II) from April 2025. Parbati Hydroelectric Project (Stage-II) (4 x 200 MW) is a run-of-the-river scheme proposed to harness hydro potential of the lower reaches of the river Parbati. The units of HEP are undergoing commissioning as on date of filing of this Petition.

c) 4 MW power from Subansiri Lower HE Project (8 x 250 MW) from April 2026 i.e., its expected date of commissioning based on the latest available information. Subansiri Lower HE Project (8 x 250 MW) is a Run of River scheme with small Pondage on river Subansiri. The Project is located near North Lakhimpur on the border of Arunachal Pradesh and Assam.

d) 6.4 MW power from nuclear plant RAPP-D starting April 2025.

4.2.6 In addition, the Petitioner will continue procuring solar power from solar power projects installed by the Chandigarh Renewable Energy Science and Technology (CREST), in terms of Part F (ii) of the Transfer Scheme 2025, which is as under:

> *"Part F. (ii) Obligation to enter into power purchase agreements:*
>
> ***The Company shall enter into an agreement with the Chandigarh Administration/CREST to procure existing and future solar power (on or after the transfer date) generated at the Solar Power Projects.*** *The applicable tariff for such agreements shall be determined by the Joint Electricity Regulatory Commission for the State of Goa and Union Territories in accordance with the Electricity Act, 2003.*
>
> ***The Company shall be obligated to purchase power produced by Solar PV systems commissioned by the Chandigarh Administration/CREST, in line with the Chandigarh Administration's long term commitment to renewable energy development for making Chandigarh a Model Solar City and procurement under Shapath Patra (Letter of Commitment, Annexure-1),*** *as well as future renewable energy (RE) and solar projects even beyond the validity of the Shapath Patra (2030) which will be in line with India's long term renewable energy Targets*
>
> *..."*

4.2.7 As per Shapath Patra (Letter of Commitment), UT Administration had committed to the following plan of renewable energy capacity addition:

Table 23. Solar capacity addition specified in the Shapath Patra for FY 2025-26 to FY 2029-30 (GW)

FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30	Total addition
0.108	0.010	0.010	0.010	0.010	0.224

4.2.8 Based on historical capacity addition trend of CREST, Petitioner has considered the following solar energy to be procured by the Petitioner:

Table 24. Solar Capacity Addition for the Control Period FY 2025-26 to FY 2029-30

FY	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Capacity addition during the year (MW)	22.20	22.20	14.80	7.40	7.40
Annual generation (MU) *(To be considered for RPO compliance)*	29.17	29.17	19.45	9.72	9.72
Procurement by Petitioner (MU)	2.92	2.92	1.94	0.97	0.97

c) Additional tie-ups required to meet peak demand and as per CEA's Resource Adequacy study

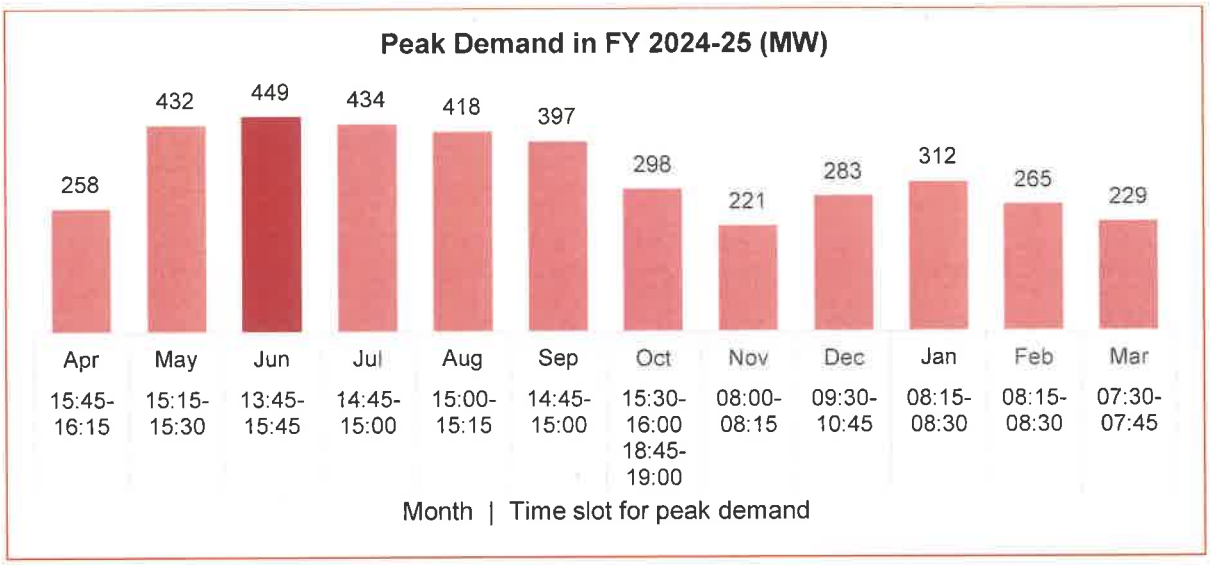
4.2.9 For the MYT Control Period, the energy demand is expected to increase from 1,834 MUs (2025-26) to 2,258 MUs (2029-30). The peak demand is anticipated to increase from ~472 MW (2025-26) to 581 MW (2029-30) i.e. an addition of ~110 MW of peak demand during the MYT Control Period.

(i) Nature of demand

Peak demand across months

4.2.10 Upon analysis of peak demand day in the Chandigarh license area, it may be clearly noted that demand starts to rise during the day/ solar hours, peaking to ~449 MW at 1500 hours in June 2024. The peak demand and its timing for other months is shown in figure below. November - March months show a morning peak; April - September show an afternoon peak while October shows a dual peak during afternoon as well as evening.

Figure 4: Peak demand (time-slot wise) during FY 2024-25



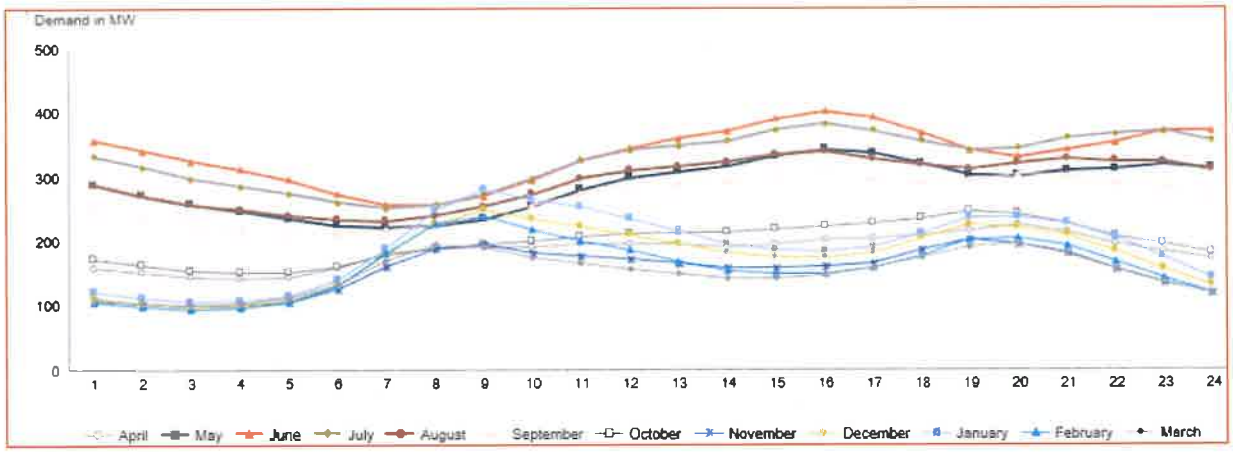
Source: CEA LGBR Report

Hourly average demand profile across months

4.2.11 Analysis of average hourly demand curve for April 2024 to March 2025 yields three clear zones of demarcation based on hourly demand. These are detailed as follows:

- **Day time high avg demand**: 4 months of May to August have highest average demand during afternoon hours (1500 to 1700 hours)
- **Evening high avg demand**: 2 months of April & October have highest average demand during evening hours (1900 to 2000 hours)
- **Morning high avg demand**: 3 months of December to February have highest demand during morning hours (0800 to 1000 hours)
- **Day and evening high avg demand**: September month has highest average demand both during day (1500 to 1600 hours) and evening hours (2000 to 2100 hours)
- **Morning & evening high avg demand**: 2 months of November & March have highest average demand both during morning (0800 to 0900 hours) and evening hours (1900 to 2000 hours)

Figure 5: Average hourly demand FY 2024-25



Source: CEA

(ii) Adequacy of existing contracted capacity to meet peak demand

4.2.12 To determine the adequacy of existing contracted capacity, generation profile at normativey availability for plants of different sources has been compared against projected yearly peak demand for 2025-26 to 2029-30.

4.2.13 The present power allocation of Chandigarh is insufficient to meet the peak power requirement of UT Chandigarh. The generation availability at UT periphery considered for different sources as follows:

- Coal: Availability at 85%, Aux Consumption 7% & CTU losses-4.03%
- Gas: Considered as Zero, since no procurement is envisaged from the tied-up gas plants due to their high cost
- Nuclear- Availability at 85%, Aux Consumption 6% & CTU losses-4.03%
- Hydro: Availability at 70%, Aux Consumption 1.2% & CTU losses-4.03%
- Wind: Availability at 30%, Aux Consumption Nil & CTU losses-4.03%

Table 25: Surplus/ shortage in meeting peak demand (excluding new capacities) (in MW)

SN.	Particulars	2025-26	2026-27	2027-28	2028-29	2029-30
I	Peak demand (Day)	472	496	522	550	581
A	Firm available capacity (Contracted) @ UT PP					
i	Coal	89	89	89	89	89
ii	Gas	-	-	-	-	-
iii	Hydro	222	222	222	222	222
iv	Nuclear	37	37	37	37	37
v	Solar	-	-	-	-	-
vi	Wind	12	12	12	12	12
	Sub-Total (sum of i to vi)	359	359	359	359	359
B	**Shortage (-)/Surplus (+)**	**-95**	**-102**	**-128**	**-156**	**-187**

4.2.14 As per CEA's resource adequacy study also, the Petitioner is expected to face shortages in meeting demand ranging from 119 MW in FY 26 to 157 MW in FY 30. *(CEA had projected peak demand of 464 MW in FY 25 whereas the actual peak demand witnessed during FY 25 was 449 MW. Further, CEA had considered ~2.3% annual increase in demand whereas the Petitioner has considered ~5.5% annual increase in demand. Hence, there is a difference between the Petitioner's projections vis-à-vis CEA's projections).*

4.2.15 This fact has also been highlighted by CEA in its recent load generation balance report for FY 2025-26 wherein the power deficit scenario for Chandigarh for throughout the year has been anticipated. The snapshot of CEA demand supply projections for UT Chandigarh is provided below:

Anticipated month-wise power supply position for 2025-26

Chandigarh

Month	Peak				Energy			
	Demand	Availability	Surplus(+)/ Deficit(-)		Requirement	Availability	Surplus(+)/ Deficit(-)	
	(MW)	(MW)	(MW)	(%)	(MU)	(MU)	(MU)	(%)
Apr-25	288	390	102	35.4	140	150	10	7.1
May-25	460	400	-60	-13.0	216	170	-46	-21.4
Jun-25	481	420	-61	-12.7	246	190	-56	-22.8
Jul-25	465	430	-35	-7.6	248	220	-28	-11.4
Aug-25	446	430	-16	-3.6	222	240	18	8.2
Sep-25	434	420	-14	-3.2	200	190	-10	-5.0
Oct-25	322	350	28	8.8	145	130	-15	-10.6
Nov-25	322	350	28	8.7	122	110	-12	-10.0
Dec-25	325	350	25	7.6	127	120	-7	-5.2
Jan-26	341	350	9	2.5	173	120	-53	-30.7
Feb-26	296	350	54	18.1	152	110	-42	-27.7
Mar-26	308	350	42	13.6	133	120	-13	-10.0
Annual	481	430	-51	-10.6	2,125	1,870	-255	-12.0

Figure 6: Anticipated power supply position for FY 2025-26

4.2.16 As per above, there is power deficit upto 60 MW during summer season and energy deficit of average 255 MUs during the year.

Adequacy planning done by EWEDC prior to privatization-

4.2.17 The details of the upcoming projects for which either PPAs have been signed by EWEDC or consent for power procurement has been granted, as discussed earlier, are reiterated as under:

Table 26. List of upcoming power plants for power purchase

New Station	Organization	Type	Total capacity (MW)	Allocated Capacity (MW)	Assumed PLF	Actual/ Expected Supply Date
Parbati-II	NHPC	Hydro	800	16	70%	April 2025
Ratle	NHPC	Hydro	850	20	70%	Feb 2026
Subansri	NHPC	Hydro	2000	4	70%	April 2026
RAPP-D	NPCIL	Nuclear	1400	6.4	80%	April 2025

Table 27. Net Surplus/ shortage in meeting peak demand (in MW)

SN.	Particulars	2025-26	2026-27	2027-28	2028-29	2029-30
I	Peak demand (Day) -	472	496	522	550	581
A	Firm available capacity (Contracted) @ UT PP	359	359	359	359	359
B	Upcoming project - Long term					
i	Hydro	14	31	31	31	31
ii	Nuclear	4	4	4	4	4
	Sub-Total (B)	18	35	35	35	35
C	**Total availability (C=A+B)**	**377**	**394**	**394**	**394**	**394**
D	**Shortage (-)/Surplus (+)**	**-95**	**-102**	**-128**	**-156**	**-187**

4.2.18 Based on the facts mentioned above, it is clear that there is power deficit in the range of 100 to 180 MW capacity for UT, Chandigarh for the Control Period till FY 2029-30.

4.2.19 It is pertinent to note that the CEA's Resource Adequacy study has considered a solar capacity addition of 50 MW (10 MW in FY 26 and 40 MW in FY 27). EWEDC had also planned for a capacity addition of 40 MW solar and 10 MW solar-wind hybrid, the procurement process for which was withheld due to the impending privatisation of EWEDC.

4.2.20 Accordingly, the Petitioner has considered additional capacity of 50 MW of Solar Long Term PPA with targeted Commercial Operation Date not later than FY 2027-28. It is submitted that the Hon'ble Commission may also consider approving further additional capacity of 50 MW for Solar Long Term PPA with targeted Commercial Operation Date on or before FY 2029-30.

d) Energy availability from various sources

4.2.21 To project energy availability from various sources as discussed above, Petitioner has employed a segmented approach, accounting for various factors such as actual generation during FY 2022-23 to FY 2024-25 based on Regional Energy Account, normative availability levels, and other considerations outlined below:

i. **Thermal:** The schedule for each generation plant for FY 2025-26 has been computed based on the actual energy scheduled from the plants in FY 2024-25. In case of Meja, Ghatampur & Khurja, PAFM of 85% has been considered. During winters, for plants having PAFM > reference rate, the PAFM of 85% or actual (whichever is lower) has been considered.

ii. **Hydro**: The schedule for each generating plant for FY 2025-26 has been computed based on the actual energy scheduled from the plants in previous FY 2024-25. For new plants i.e. Parbati-II & Ratle, the PLFM of 70% has been considered.

iii. **Gas:** No availability projected from Gas stations as historically these stations are not getting scheduled on account of high cost of power purchase from these stations. However, considering the current allocation from the Ministry of Power (MoP), the existing arrangements with the GENCOs and the applicable Regulations, fixed charges for these stations have been considered for the control period. CPDL is in the process of reviewing the situation and may seek appropriate directions from the Hon'ble Commission by way of separate proceedings.

iv. **Inter-state RE**: Monthly availability from SECI's wind project is considered based on the availability recorded MoM during FY 2024-25 and latest availability data provided by the developer.

v. **Intra Solar**: Availability projected as per 15% CUF approved by Hon'ble Commission in Business plan of EWEDC for the control period FY 2022-23 to FY 2024-25.

vi. **Future generating stations (already tied up by EWEDC)**: Energy availability has been projected based on the current information received from suppliers. Accordingly, hydro power from NHPC-Parbati-II and NHPC- Ratle HEP (20 MW) & NHPC- Subansri HEP (4 MW) has been considered at PLF of 70% and nuclear power from RAPP-D (6.4 MW) has been considered at PLF of 85%.

vii. **Additional tie-ups required to meet peak demand and as per CEA's Resource Adequacy study:** Power from solar long term PPA has been considered from FY 2027-28 onwards. Energy availability has been projected as per 23% CUF.

viii. **Market sources:** Any shortfall in power from the tied-up sources, if required, has been accounted for through short-term sources such as power exchange, UI, and other trading avenues.

Table 28. Station-wise Projected Power Purchase for the period FY 2025-26 to FY 2029-30 (MU)

SN	Organization	Type	Name of Project	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
1	NTPC	Thermal	Singrauli	46.55	46.55	46.55	46.55	46.55
2		Thermal	Rihand I	93.48	93.48	93.48	93.48	93.48
3		Thermal	Rihand II	91.42	91.42	91.42	91.42	91.42
4		Thermal	Rihand III	70.31	70.31	70.31	70.31	70.31
5		Thermal	Unchahar I	17.24	17.24	17.24	17.24	17.24
6		Thermal	Unchahar II	32.77	32.77	32.77	32.77	32.77
7		Thermal	Unchahar III	12.30	12.30	12.30	12.30	12.30
8		Thermal	Unchahar IV	48.81	48.81	48.81	48.81	48.81
9		Thermal	Anta	-	-	-	-	-
10		Thermal	Auriya	-	-	-	-	-
11		Thermal	Dadri	-	-	-	-	-
12		Thermal	Kahalgaon II	21.07	21.07	21.07	21.07	21.07
13		Thermal	Dadri II	24.99	24.99	24.99	24.99	24.99
14		Thermal	Tanda II	63.68	63.68	63.68	63.68	63.68
15		Hydro	Singrauli Hydro	0.28	0.28	0.28	0.28	0.28
16		Hydro	Koldam Hydro	49.98	49.98	49.98	49.98	49.98
			Total NTPC	**572.88**	**572.88**	**572.88**	**572.88**	**572.88**
17	NHPC	Hydro	Salal	8.56	8.56	8.56	8.56	8.56
18		Hydro	Tanakpur	5.71	5.71	5.71	5.71	5.71
19		Hydro	Chamera I	79.94	79.94	79.94	79.94	79.94
20		Hydro	Chamera II	33.85	33.85	33.85	33.85	33.85
21		Hydro	Uri	11.78	11.78	11.78	11.78	11.78
22		Hydro	Dhauliganga	24.99	24.99	24.99	24.99	24.99
23		Hydro	Dulhasti	41.86	41.86	41.86	41.86	41.86
24		Hydro	Sewa II	8.36	8.36	8.36	8.36	8.36
25		Hydro	URI II	22.75	22.75	22.75	22.75	22.75
26		Hydro	Chamera III	21.60	21.60	21.60	21.60	21.60
27		Hydro	Parbati-III	12.22	12.22	12.22	12.22	12.22
28		Hydro	Kishan Ganga	20.30	20.30	20.30	20.30	20.30
		Hydro	**Total NHPC**	**291.91**	**291.91**	**291.91**	**291.91**	**291.91**
29	MUNPL	Thermal	MEJA I	87.02	87.02	87.02	87.02	87.02
		Thermal	**Total MUNPL**	**87.02**	**87.02**	**87.02**	**87.02**	**87.02**
30	THDC-Thermal	Thermal	Khurja	44.47	44.47	44.47	44.47	44.47
		Thermal	**Total Khurja**	**44.47**	**44.47**	**44.47**	**44.47**	**44.47**
30	NUPPL	Thermal	Ghatampur	30.31	30.31	30.31	30.31	30.31

SN	Organization	Type	Name of Project	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
		Thermal	**Total NUPPL**	**30.31**	**30.31**	**30.31**	**30.31**	**30.31**
31	APCPL	Thermal	Jajjar	80.39	80.39	80.39	80.39	80.39
		Thermal	**Total APCPL**	**80.39**	**80.39**	**80.39**	**80.39**	**80.39**
32	NPCIL	Thermal	NAPS	70.18	70.18	70.18	70.18	70.18
33		Thermal	RAPP (Unit 3 & 4)-B	14.30	14.30	14.30	14.30	14.30
34		Thermal	RAPP (Unit 5 & 6)-C	68.00	68.00	68.00	68.00	68.00
		Thermal	**Total NPCIL**	**152.48**	**152.48**	**152.48**	**152.48**	**152.48**
35	SJVNL	Hydro	NATHPA JHAKRI	113.19	113.19	113.19	113.19	113.19
36		Hydro	Rampur	19.12	19.12	19.12	19.12	19.12
		Hydro	**Total SJVNL**	**132.32**	**132.32**	**132.32**	**132.32**	**132.32**
37	BBMB	Hydro	BBMB 1 LU	36.53	36.53	36.53	36.53	36.53
38		Hydro	BBMB 10 LU	365.29	365.29	365.29	365.29	365.29
39		Hydro	Bhakhra	200.37	200.37	200.37	200.37	200.37
40		Hydro	Dehar	80.40	80.40	80.40	80.40	80.40
41		Hydro	Pong	21.69	21.69	21.69	21.69	21.69
		Hydro	**Total BBMB**	**704.29**	**704.29**	**704.29**	**704.29**	**704.29**
42	THDC	Hydro	Koteshwar	15.07	15.07	15.07	15.07	15.07
43		Hydro	Tehri	180.75	180.75	180.75	180.75	180.75
		Hydro	**Total THDC**	**195.82**	**195.82**	**195.82**	**195.82**	**195.82**
44	SECI	Wind	Tranche-VI	113.22	113.22	113.22	113.22	113.22
		Wind	**Total SECI**	**113.22**	**113.22**	**113.22**	**113.22**	**113.22**
45	Solar	Solar	CREST	13.86	16.78	18.72	19.69	20.66
46		Solar	Pvt. Solar	0.06	0.06	0.06	0.06	0.06
47		Solar	Net Solar	1.93	1.93	1.93	1.93	1.93
		Solar	**Total Solar (Intra)**	**15.85**	**18.76**	**20.71**	**21.68**	**22.65**
48	Future Stations	Hydro	Parbati-II	98.11	98.11	98.11	98.11	98.11
49		Hydro	Ratle	0.99	122.64	122.64	122.64	122.64
50		Hydro	Subansri HEP		24.53	24.53	24.53	24.53
51		Nuclear	RAPP-D	43.74	47.65	47.65	47.65	47.65
52		Solar	New PPA			100.74	100.74	201.48
		Hydro	**Total Future**	**142.84**	**292.93**	**393.67**	**393.67**	**494.41**
			Grand Total	2,563.79	2,716.80	2,819.48	2,820.46	2,922.17

e) Power Purchase Cost

4.2.22 To estimate the power purchase cost, the approach adopted by the Petitioner has been illustrated in the following paragraphs. The estimation takes into consideration various cost components, including capacity charges, energy charges, other associated charges, and

transmission charges, based on the available information, as per the best efforts of the Petitioner, subject to the issues detailed in the previous sections of this Petition.

4.2.23 The capacity/ fixed charges for the period FY 2022-23 to FY 2024-25 have been taken into consideration for projecting capacity/ fixed charges for the Control Period FY 2025-26 to FY 2029-30. There has been an average increase of 1.30% in the total cost i.e. average variation during FY 2024-25 over FY 2023-24 and FY 2023-24 over FY 2022-23. Accordingly, the capacity/ fixed charges for the existing plants have been considered based on an annual escalation of 1.30% on the per unit cost of FY 2024-25 to estimate the cost for the Control Period.

4.2.24 The variable/ energy charges for the period FY 2022-23 to FY 2024-25 have been taken into consideration for projecting variable/ energy charges for the Control Period FY 2025-26 to FY 2029-30. There has been an average increase of 1.30% in the total cost i.e. average variation during FY 2024-25 over FY 2023-24 and FY 2023-24 over FY 2022-23. Accordingly, the variable/ energy charges for the existing plants have been considered based on an annual escalation of 1.30% on the per unit cost of FY 2024-25 to estimate the cost for the Control Period.

4.2.25 The other charges for the period FY 2022-23 to FY 2024-25 have been taken into consideration for projecting other charges for the Control Period FY 2025-26 to FY 2029-30. There has been an average increase of 1.30% in the total cost i.e. average variation during FY 2024-25 over FY 2023-24 and FY 2023-24 over FY 2022-23. Accordingly, the other charges for the existing plants have been considered based on an annual escalation of 1.30% on the per unit cost of FY 2024-25 to estimate the cost for the Control Period.

4.2.26 Capacity Charges and Energy Charges for future generating stations have been considered as per the current data provided by the suppliers. The cost for additional solar capacity to be tied up in FY 2027-28 and FY 2029-30, as discussed in the earlier paras, has been taken as Rs 2.75 per unit as per the recent trends in solar bidding, subject to variation on account of factors, which cannot be reasonably predicted as on date.

4.2.27 Based on the above submissions, the projected Capacity charges, variable charges, other charges and total charges for the long-term power procurement during Control period FY 2025-26 to FY 2029-30 are depicted below:

Table 29. Projections for Fixed Charges (Rs. Cr.)

SN	Organization	Type	Name of Project	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
1	NTPC	Thermal	Singrauli	3.27	3.31	3.36	3.40	3.44
2		Thermal	Rihand I	7.87	7.97	8.08	8.18	8.29

SN	Organization	Type	Name of Project	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
3		Thermal	Rihand II	6.49	6.58	6.66	6.75	6.84
4		Thermal	Rihand III	9.80	9.92	10.05	10.18	10.32
5		Thermal	Unchahar I	1.91	1.94	1.96	1.99	2.02
6		Thermal	Unchahar II	3.83	3.88	3.93	3.98	4.03
7		Thermal	Unchahar III	1.47	1.49	1.50	1.52	1.54
8		Thermal	Unchahar IV	7.33	7.42	7.52	7.62	7.71
9		Thermal	Anta	4.69	4.75	4.81	4.88	4.94
10		Thermal	Auriya	7.51	7.60	7.70	7.80	7.90
11		Thermal	Dadri	6.08	6.16	6.24	6.32	6.41
12		Thermal	Kahalgaon II	1.87	1.89	1.92	1.94	1.97
13		Thermal	Dadri II	3.17	3.21	3.25	3.29	3.34
14		Thermal	Tanda II	8.58	8.70	8.81	8.92	9.04
15		Hydro	Singrauli Hydro	-	-	-	-	-
16		Hydro	Koldam Hydro	10.52	10.66	10.80	10.94	11.08
			Total NTPC	84.39	85.49	86.60	87.73	88.87
17	NHPC	Hydro	Salal	0.82	0.83	0.84	0.85	0.86
18		Hydro	Tanakpur	1.83	1.86	1.88	1.91	1.93
19		Hydro	Chamera I	7.83	7.93	8.03	8.14	8.24
20		Hydro	Chamera II	4.77	4.84	4.90	4.96	5.03
21		Hydro	Uri	1.43	1.45	1.47	1.49	1.51
22		Hydro	Dhauliganga	3.51	3.56	3.61	3.65	3.70
23		Hydro	Dulhasti	8.49	8.60	8.72	8.83	8.94
24		Hydro	Sewa II	2.71	2.75	2.78	2.82	2.86
25		Hydro	URI II	4.25	4.30	4.36	4.42	4.47
26		Hydro	Chamera III	5.28	5.35	5.42	5.49	5.56
27		Hydro	Parbati-III	5.36	5.43	5.50	5.57	5.64
28		Hydro	Kishan Ganga	6.11	6.19	6.27	6.35	6.44
		Hydro	**Total NHPC**	52.40	53.09	53.78	54.48	55.18
29	MUNPL	Thermal	MEJA I	20.23	20.49	20.76	21.03	21.30
		Thermal	**Total MUNPL**	20.23	20.49	20.76	21.03	21.30
30	THDC-Thermal	Thermal	Khurja	5.13	5.19	5.26	5.33	5.40
		Thermal	**Total Khurja**	5.13	5.19	5.26	5.33	5.40
30	NUPPL	Thermal	Ghatampur	10.64	10.77	10.91	11.06	11.20
		Thermal	**Total NUPPL**	10.64	10.77	10.91	11.06	11.20
31	APCPL	Thermal	Jajjar	12.70	12.86	13.03	13.20	13.37
		Thermal	**Total APCPL**	12.70	12.86	13.03	13.20	13.37
32	NPCIL	Thermal	NAPS	-	-	-	-	-
33		Thermal	RAPP (Unit 3 & 4)-B	-	-	-	-	-
34		Thermal	RAPP (Unit 5 & 6)-C	-	-	-	-	-

Chandigarh Power Distribution Ltd. CPDL

SN.	Organization	Type	Name of Project	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
		Thermal	**Total NPCIL**	-	-	-	-	-
35	SJVNL	Hydro	NATHPA JHAKRI	13.79	13.97	14.15	14.33	14.52
36		Hydro	Rampur	4.29	4.34	4.40	4.46	4.51
		Hydro	**Total SJVNL**	18.07	18.31	18.55	18.79	19.03
37	BBMB	Hydro	BBMB 1 LU		-	-	-	-
38		Hydro	BBMB 10 LU		-	-	-	-
39		Hydro	Bhakhra		-	-	-	-
40		Hydro	Dehar		-	-	-	-
41		Hydro	Pong		-	-	-	-
		Hydro	**Total BBMB**	-	-	-	-	-
42	THDC	Hydro	Koteshwar	3.94	3.99	4.05	4.10	4.15
43		Hydro	Tehri	33.58	34.02	34.46	34.91	35.36
		Hydro	**Total THDC**	37.53	38.01	38.51	39.01	39.52
44	SECI	Wind	Tranche-VI	-	-	-	-	-
		Wind	**Total SECI**	-	-	-	-	-
45	Solar	Solar	CREST	-	-	-	-	-
46		Solar	Pvt. Solar	-	-	-	-	-
47		Solar	Net Solar	-	-	-	-	-
		Solar	**Total Solar (Intra)**	-	-	-	-	-
48	Future Stations	Hydro	Parbati-II	-	-	-	-	-
49		Hydro	Ratle	-	-	-	-	-
50		Hydro	Subansri HEP		-	-	-	-
51		Nuclear	RAPP-D	-				
52		Solar	New PPA					
		Hydro	**Total Future**	-	-	-	-	-
			Grand Total	241.09	244.22	247.39	250.61	253.87

Table 30. Projections for Variable Charges (Rs. Cr.)

SN.	Organization	Type	Name of Project	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
1	NTPC	Thermal	Singrauli	8.12	8.22	8.33	8.44	8.55
2		Thermal	Rihand I	15.64	15.84	16.04	16.25	16.46
3		Thermal	Rihand II	15.19	15.39	15.59	15.79	16.00
4		Thermal	Rihand III	11.55	11.70	11.85	12.01	12.17
5		Thermal	Unchahar I	6.58	6.67	6.76	6.84	6.93
6		Thermal	Unchahar II	12.23	12.39	12.56	12.72	12.88
7		Thermal	Unchahar III	4.62	4.68	4.74	4.80	4.86
8		Thermal	Unchahar IV	17.29	17.51	17.74	17.97	18.20
9		Thermal	Anta	-	-	-	-	-

SN.	Organization	Type	Name of Project	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
10		Thermal	Auriya	-	-	-	-	-
11		Thermal	Dadri	-	-	-	-	-
12		Thermal	Kahalgaon II	5.53	5.60	5.67	5.75	5.82
13		Thermal	Dadri II	10.81	10.95	11.09	11.24	11.38
14		Thermal	Tanda II	20.65	20.91	21.19	21.46	21.74
15		Hydro	Singrauli Hydro	0.15	0.15	0.15	0.15	0.15
16		Hydro	Koldam Hydro	11.06	11.20	11.35	11.50	11.65
			Total NTPC	139.41	141.22	143.06	144.92	146.80
17	NHPC	Hydro	Salal	0.67	0.68	0.69	0.70	0.71
18		Hydro	Tanakpur	1.43	1.45	1.47	1.49	1.51
19		Hydro	Chamera I	9.22	9.34	9.46	9.59	9.71
20		Hydro	Chamera II	4.13	4.19	4.24	4.29	4.35
21		Hydro	Uri	1.14	1.16	1.17	1.19	1.20
22		Hydro	Dhauliganga	3.24	3.28	3.32	3.37	3.41
23		Hydro	Dulhasti	9.35	9.47	9.60	9.72	9.85
24		Hydro	Sewa II	1.87	1.89	1.92	1.94	1.97
25		Hydro	URI II	5.01	5.07	5.14	5.20	5.27
26		Hydro	Chamera III	4.57	4.63	4.69	4.75	4.81
27		Hydro	Parbati-III	1.69	1.71	1.73	1.75	1.77
28		Hydro	Kishan Ganga	4.91	4.97	5.04	5.11	5.17
		Hydro	**Total NHPC**	47.23	47.85	48.47	49.10	49.74
29	MUNPL	Thermal	MEJA I	29.52	29.90	30.29	30.68	31.08
		Thermal	**Total MUNPL**	29.52	29.90	30.29	30.68	31.08
30	THDC-Thermal	Thermal	Khurja	4.00	4.06	4.11	4.16	4.22
		Thermal	**Total Khurja**	4.00	4.06	4.11	4.16	4.22
30	NUPPL	Thermal	Ghatampur	8.47	8.58	8.70	8.81	8.92
		Thermal	**Total NUPPL**	8.47	8.58	8.70	8.81	8.92
31	APCPL	Thermal	Jajjar	33.59	34.02	34.47	34.91	35.37
		Thermal	**Total APCPL**	33.59	34.02	34.47	34.91	35.37
32	NPCIL	Thermal	NAPS	21.12	21.40	21.40	21.40	21.40
33		Thermal	RAPP (Unit 3 & 4)-B	4.59	4.65	4.65	4.65	4.65
34		Thermal	RAPP (Unit 5 & 6)-C	25.77	26.10	26.10	26.10	26.10
		Thermal	**Total NPCIL**	51.49	52.16	52.16	52.16	52.16
35	SJVNL	Hydro	NATHPA JHAKRI	13.79	13.97	14.16	14.34	14.53
36		Hydro	Rampur	3.95	4.00	4.06	4.11	4.16
		Hydro	**Total SJVNL**	17.75	17.98	18.21	18.45	18.69
37	BBMB	Hydro	BBMB 1 LU	14.06	14.25	14.25	14.25	14.25

SN.	Organization	Type	Name of Project	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
38		Hydro	BBMB 10 LU	140.64	142.47	142.47	142.47	142.47
39		Hydro	Bhakhra	-	-	-	-	-
40		Hydro	Dehar	-	-	-	-	-
41		Hydro	Pong	-	-	-	-	-
		Hydro	**Total BBMB**	154.70	156.71	156.71	156.71	156.71
42	THDC	Hydro	Koteshwar	4.09	4.14	4.20	4.25	4.31
43		Hydro	Tehri	36.16	36.63	37.11	37.59	38.08
		Hydro	**Total THDC**	40.25	40.77	41.30	41.84	42.39
44	SECI	Wind	Tranche-VI	32.72	32.72	32.72	32.72	32.72
		Wind	**Total SECI**	32.72	32.72	32.72	32.72	32.72
45	Solar	Solar	CREST	8.99	10.89	12.15	12.78	13.41
46		Solar	Pvt. Solar	0.05	0.05	0.05	0.05	0.05
47		Solar	Net Solar	0.64	0.65	0.66	0.67	0.68
		Solar	**Total Solar (Intra)**	9.69	11.59	12.86	13.50	14.14
48	Future Stations	Hydro	Parbati-II	44.49	45.07	45.66	46.25	46.85
49		Hydro	Ratle	0.39	48.23	48.86	49.50	50.14
50		Hydro	Subansri HEP		11.04	11.18	11.33	11.47
51		Nuclear	RAPP-D	21.13	23.32	23.62	23.93	24.24
52		Solar	New PPA		-	27.70	27.70	55.41
		Hydro	**Total Future**	66.01	127.66	157.02	158.70	188.11
			Grand Total	**634.82**	**705.22**	**740.07**	**746.67**	**781.04**

Table 31. Projections for Other Charges (Rs. Cr.)

SN.	Organization	Type	Name of Project	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
1	NTPC	Thermal	Singrauli	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)
2		Thermal	Rihand I	(1.47)	(1.49)	(1.51)	(1.53)	(1.55)
3		Thermal	Rihand II	(0.27)	(0.27)	(0.27)	(0.28)	(0.28)
4		Thermal	Rihand III	(0.21)	(0.21)	(0.22)	(0.22)	(0.22)
5		Thermal	Unchahar I	(0.20)	(0.20)	(0.21)	(0.21)	(0.21)
6		Thermal	Unchahar II	(0.72)	(0.73)	(0.74)	(0.75)	(0.76)
7		Thermal	Unchahar III	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
8		Thermal	Unchahar IV	(0.24)	(0.24)	(0.25)	(0.25)	(0.25)
9		Thermal	Anta	-	-	-	-	-
10		Thermal	Auriya	-	-	-	-	-
11		Thermal	Dadri	-	-	-	-	-
12		Thermal	Kahalgaon II	0.24	0.24	0.25	0.25	0.25
13		Thermal	Dadri II	(1.33)	(1.34)	(1.36)	(1.38)	(1.40)
14		Thermal	Tanda II	(1.17)	(1.18)	(1.20)	(1.22)	(1.23)

SN	Organization	Type	Name of Project	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
15		Hydro	Singrauli Hydro	0.00	0.00	0.00	0.00	0.00
16		Hydro	Koldam Hydro	0.26	0.26	0.27	0.27	0.27
			Total NTPC	(5.28)	(5.35)	(5.42)	(5.49)	(5.56)
17	NHPC	Hydro	Salal	1.12	1.14	1.15	1.17	1.18
18		Hydro	Tanakpur	0.47	0.47	0.48	0.49	0.49
19		Hydro	Chamera I	2.18	2.20	2.23	2.26	2.29
20		Hydro	Chamera II	6.85	6.94	7.03	7.12	7.22
21		Hydro	Uri	1.23	1.24	1.26	1.28	1.29
22		Hydro	Dhauliganga	2.14	2.17	2.20	2.23	2.26
23		Hydro	Dulhasti	4.41	4.47	4.53	4.59	4.64
24		Hydro	Sewa II	0.74	0.75	0.76	0.77	0.78
25		Hydro	URI II	4.25	4.30	4.36	4.41	4.47
26		Hydro	Chamera III	2.19	2.22	2.25	2.28	2.31
27		Hydro	Parbati-III	-3.99	-4.05	-4.10	-4.15	-4.21
28		Hydro	Kishan Ganga	10.19	10.32	10.46	10.59	10.73
		Hydro	**Total NHPC**	31.79	32.20	32.62	33.04	33.47
29	MUNPL	Thermal	MEJA I	6.77	6.86	6.95	7.04	7.13
		Thermal	**Total MUNPL**	6.77	6.86	6.95	7.04	7.13
30	THDC-Thermal	Thermal	Khurja	0.10	0.10	0.10	0.10	0.10
		Thermal	**Total Khurja**	0.10	0.10	0.10	0.10	0.10
30	NUPPL	Thermal	Ghatampur	0.45	0.46	0.47	0.47	0.48
		Thermal	**Total NUPPL**	0.45	0.46	0.47	0.47	0.48
31	APCPL	Thermal	Jajjar	-0.37	-0.38	-0.38	-0.39	-0.39
		Thermal	**Total APCPL**	-0.37	-0.38	-0.38	-0.39	-0.39
32	NPCIL	Thermal	NAPS	0.41	0.41	0.41	0.41	0.41
33		Thermal	RAPP (Unit 3 & 4)-B	0.18	0.18	0.18	0.18	0.18
34		Thermal	RAPP (Unit 5 & 6)-C	2.21	2.21	2.21	2.21	2.21
		Thermal	**Total NPCIL**	2.80	2.80	2.80	2.80	2.80
35	SJVNL	Hydro	NATHPA JHAKRI	0.90	0.91	0.93	0.94	0.95
36		Hydro	Rampur	1.18	1.19	1.21	1.23	1.24
		Hydro	**Total SJVNL**	2.08	2.11	2.14	2.16	2.19
37	BBMB	Hydro	BBMB 1 LU	-	-	-	-	-
38		Hydro	BBMB 10 LU	-	-	-	-	-
39		Hydro	Bhakhra	6.98	7.07	7.07	7.07	7.07
40		Hydro	Dehar	0.01	0.01	0.01	0.01	0.01
41		Hydro	Pong	11.55	11.70	11.70	11.70	11.70
		Hydro	**Total BBMB**	18.54	18.78	18.78	18.78	18.78
42	THDC	Hydro	Koteshwar	1.51	1.53	1.55	1.57	1.59
43		Hydro	Tehri	5.21	5.28	5.35	5.42	5.49

SN.	Organization	Type	Name of Project	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
		Hydro	**Total THDC**	6.72	6.80	6.89	6.98	7.07
44	SECI	Wind	Tranche-VI	0.01	0.01	0.01	0.01	0.01
		Wind	**Total SECI**	0.01	0.01	0.01	0.01	0.01
45	Solar	Solar	CREST	-	-	-	-	-
46		Solar	Pvt. Solar	-	-	-	-	-
47		Solar	Net Solar	-	0	0	0	0
		Solar	**Total Solar (Intra)**	-	-	-	-	-
48	Future Stations	Hydro	Parbati-II				-	-
49		Hydro	Ratle				-	-
50		Hydro	Subansri HEP				-	-
51		Nuclear	RAPP-D					
52		Solar	New PPA					
		Hydro	**Total Future**	-	-	-	-	-
			Grand Total	63.60	64.39	64.95	65.51	66.08

Table 32. Projections for Total Charges (Rs. Cr.)

SN.	Organization	Type	Name of Project	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
1	NTPC	Thermal	Singrauli	11.29	11.44	11.59	11.74	11.89
2		Thermal	Rihand I	22.04	22.32	22.61	22.91	23.20
3		Thermal	Rihand II	21.42	21.70	21.98	22.26	22.55
4		Thermal	Rihand III	21.14	21.41	21.69	21.97	22.26
5		Thermal	Unchahar I	8.30	8.41	8.51	8.63	8.74
6		Thermal	Unchahar II	15.34	15.54	15.74	15.95	16.15
7		Thermal	Unchahar III	6.00	6.08	6.16	6.24	6.32
8		Thermal	Unchahar IV	24.37	24.69	25.01	25.33	25.66
9		Thermal	Anta	4.69	4.75	4.81	4.88	4.94
10		Thermal	Auriya	7.51	7.60	7.70	7.80	7.90
11		Thermal	Dadri	6.08	6.16	6.24	6.32	6.41
12		Thermal	Kahalgaon II	7.64	7.74	7.84	7.94	8.04
13		Thermal	Dadri II	12.65	12.82	12.98	13.15	13.32
14		Thermal	Tanda II	28.06	28.43	28.79	29.17	29.55
15		Hydro	Singrauli Hydro	0.15	0.15	0.15	0.15	0.15
16		Hydro	Koldam Hydro	21.84	22.12	22.41	22.70	23.00
			Total NTPC	218.51	221.35	224.23	227.15	230.10
17	NHPC	Hydro	Salal	2.62	2.65	2.69	2.72	2.76
18		Hydro	Tanakpur	3.73	3.78	3.83	3.88	3.93
19		Hydro	Chamera I	19.23	19.48	19.73	19.99	20.25
20		Hydro	Chamera II	15.76	15.96	16.17	16.38	16.59

SN	Organization	Type	Name of Project	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
21		Hydro	Uri	3.80	3.85	3.90	3.95	4.00
22		Hydro	Dhauliganga	8.90	9.01	9.13	9.25	9.37
23		Hydro	Dulhasti	22.26	22.55	22.84	23.14	23.44
24		Hydro	Sewa II	5.32	5.39	5.46	5.53	5.61
25		Hydro	URI II	13.50	13.68	13.86	14.04	14.22
26		Hydro	Chamera III	12.04	12.20	12.36	12.52	12.68
27		Hydro	Parbati-III	3.05	3.09	3.13	3.17	3.21
28		Hydro	Kishan Ganga	21.22	21.49	21.77	22.05	22.34
		Hydro	**Total NHPC**	131.42	133.13	134.86	136.62	138.39
29	MUNPL	Thermal	MEJA I	56.52	57.25	58.00	58.75	59.52
		Thermal	**Total MUNPL**	56.52	57.25	58.00	58.75	59.52
30	THDC-Thermal	Thermal	Khurja	9.23	9.35	9.47	9.59	9.72
		Thermal	**Total Khurja**	9.23	9.35	9.47	9.59	9.72
30	NUPPL	Thermal	Ghatampur	19.56	19.82	20.08	20.34	20.60
		Thermal	**Total NUPPL**	19.56	19.82	20.08	20.34	20.60
31	APCPL	Thermal	Jajjar	45.91	46.51	47.11	47.72	48.34
		Thermal	**Total APCPL**	45.91	46.51	47.11	47.72	48.34
32	NPCIL	Thermal	NAPS	21.53	21.81	21.81	21.81	21.81
33		Thermal	RAPP (Unit 3 & 4)-B	4.77	4.83	4.83	4.83	4.83
34		Thermal	RAPP (Unit 5 & 6)-C	27.98	28.32	28.32	28.32	28.32
		Thermal	**Total NPCIL**	54.29	54.96	54.96	54.96	54.96
35	SJVNL	Hydro	NATHPA JHAKRI	28.48	28.85	29.23	29.61	29.99
36		Hydro	Rampur	9.42	9.54	9.66	9.79	9.92
		Hydro	**Total SJVNL**	37.90	38.39	38.89	39.40	39.91
37	BBMB	Hydro	BBMB 1 LU	14.06	14.25	14.25	14.25	14.25
38		Hydro	BBMB 10 LU	140.64	142.47	142.47	142.47	142.47
39		Hydro	Bhakhra	6.98	7.07	7.07	7.07	7.07
40		Hydro	Dehar	0.01	0.01	0.01	0.01	0.01
41		Hydro	Pong	11.55	11.70	11.70	11.70	11.70
		Hydro	**Total BBMB**	173.24	175.49	175.49	175.49	175.49
42	THDC	Hydro	Koteshwar	9.54	9.66	9.79	9.92	10.04
43		Hydro	Tehri	74.96	75.93	76.92	77.92	78.93
		Hydro	**Total THDC**	84.50	85.59	86.71	87.83	88.98
44	SECI	Wind	Tranche-VI	32.74	32.74	32.74	32.74	32.74
		Wind	**Total SECI**	32.74	32.74	32.74	32.74	32.74
45	Solar	Solar	CREST	8.99	10.89	12.15	12.78	13.41
46		Solar	Pvt. Solar	0.05	0.05	0.05	0.05	0.05
47		Solar	Net Solar	0.64	0.65	0.66	0.67	0.68
		Solar	**Total Solar (Intra)**	9.69	11.59	12.86	13.50	14.14
48		Hydro	Parbati-II	44.49	45.07	45.66	46.25	46.85

SN.	Organization	Type	Name of Project	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
49	Future Stations	Hydro	Ratle	0.39	48.23	48.86	49.50	50.14
50		Hydro	Subansri HEP		11.04	11.18	11.33	11.47
51		Nuclear	RAPP-D	21.13	23.32	23.62	23.93	24.24
52		Solar	New PPA		-	27.70	27.70	55.41
		Hydro	**Total Future**	66.01	127.66	157.02	158.70	188.11
			Grand Total	939.51	1,013.83	1,052.42	1,062.79	1,100.99

Table 33. Average Power Purchase cost from the generating stations for the control period (Rs / unit)

SN.	Organization	Type	Name of Project	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
1	NTPC	Thermal	Singrauli	2.43	2.46	2.49	2.52	2.55
2		Thermal	Rihand I	2.36	2.39	2.42	2.45	2.48
3		Thermal	Rihand II	2.34	2.37	2.40	2.44	2.47
4		Thermal	Rihand III	3.01	3.05	3.09	3.13	3.17
5		Thermal	Unchahar I	4.81	4.87	4.94	5.00	5.07
6		Thermal	Unchahar II	4.68	4.74	4.80	4.87	4.93
7		Thermal	Unchahar III	4.88	4.95	5.01	5.08	5.14
8		Thermal	Unchahar IV	4.99	5.06	5.12	5.19	5.26
9		Thermal	Anta					
10		Thermal	Auriya					
11		Thermal	Dadri					
12		Thermal	Kahalgaon II	3.62	3.67	3.72	3.77	3.82
13		Thermal	Dadri II	5.06	5.13	5.20	5.26	5.33
14		Thermal	Tanda II	4.41	4.46	4.52	4.58	4.64
15		Hydro	Singrauli Hydro	5.11	5.17	5.24	5.31	5.38
16		Hydro	Koldam Hydro	4.37	4.43	4.48	4.54	4.60
			Total NTPC	**3.81**	**3.86**	**3.91**	**3.97**	**4.02**
17	NHPC	Hydro	Salal	3.06	3.10	3.14	3.18	3.22
18		Hydro	Tanakpur	6.54	6.62	6.71	6.80	6.89
19		Hydro	Chamera I	2.41	2.44	2.47	2.50	2.53
20		Hydro	Chamera II	4.66	4.72	4.78	4.84	4.90
21		Hydro	Uri	3.23	3.27	3.31	3.35	3.40
22		Hydro	Dhauliganga	3.56	3.61	3.65	3.70	3.75
23		Hydro	Dulhasti	5.32	5.39	5.46	5.53	5.60
24		Hydro	Sewa II	6.37	6.45	6.54	6.62	6.71
25		Hydro	URI II	5.94	6.01	6.09	6.17	6.25
26		Hydro	Chamera III	5.57	5.65	5.72	5.80	5.87
27		Hydro	Parbati-III	2.50	2.53	2.56	2.60	2.63
28		Hydro	Kishan Ganga	10.45	10.59	10.72	10.86	11.00
		Hydro	Total NHPC	4.50	4.56	4.62	4.68	4.74

SN.	Organization	Type	Name of Project	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
29	MUNPL	Thermal	MEJA I	6.50	6.58	6.67	6.75	6.84
		Thermal	Total MUNPL	6.50	6.58	6.67	6.75	6.84
30	THDC-Thermal	Thermal	Khurja	2.08	2.10	2.13	2.16	2.19
		Thermal	Total Khurja	2.08	2.10	2.13	2.16	2.19
30	NUPPL	Thermal	Ghatampur	6.45	6.54	6.62	6.71	6.80
		Thermal	Total NUPPL	6.45	6.54	6.62	6.71	6.80
31	APCPL	Thermal	Jajjar	5.71	5.79	5.86	5.94	6.01
		Thermal	Total APCPL	5.71	5.79	5.86	5.94	6.01
32	NPCIL	Thermal	NAPS	3.07	3.11	3.11	3.11	3.11
33		Thermal	RAPP (Unit 3 & 4)-B	3.34	3.38	3.38	3.38	3.38
34		Thermal	RAPP (Unit 5 & 6)-C	4.11	4.16	4.16	4.16	4.16
		Thermal	Total NPCIL	3.56	3.60	3.60	3.60	3.60
35	SJVNL	Hydro	NATHPA JHAKRI	2.52	2.55	2.58	2.62	2.65
36		Hydro	Rampur	4.93	4.99	5.05	5.12	5.19
		Hydro	Total SJVNL	2.86	2.90	2.94	2.98	3.02
37	BBMB	Hydro	BBMB 1 LU	3.85	3.90	3.90	3.90	3.90
38		Hydro	BBMB 10 LU	3.85	3.90	3.90	3.90	3.90
39		Hydro	Bhakhra	0.35	0.35	0.35	0.35	0.35
40		Hydro	Dehar	0.00	0.00	0.00	0.00	0.00
41		Hydro	Pong	5.32	5.39	5.39	5.39	5.39
		Hydro	Total BBMB	2.46	2.49	2.49	2.49	2.49
42	THDC	Hydro	Koteshwar	6.33	6.41	6.49	6.58	6.66
43		Hydro	Tehri	4.15	4.20	4.26	4.31	4.37
		Hydro	Total THDC	4.31	4.37	4.43	4.49	4.54
44	SECI	Wind	Tranche-VI	2.89	2.89	2.89	2.89	2.89
		Wind	Total SECI	2.89	2.89	2.89	2.89	2.89
45	Solar	Solar	CREST	6.49	6.49	6.49	6.49	6.49
46		Solar	Pvt. Solar	8.71	8.83	8.94	9.06	9.18
47		Solar	Net Solar	3.33	3.37	3.41	3.46	3.50
		Solar	Total Solar (Intra)	6.11	6.18	6.21	6.23	6.24
48	Future Stations	Hydro	Parbati-II	4.53	4.59	4.65	4.71	4.78
49		Hydro	Ratle	3.92	3.93	3.98	4.04	4.09
50		Hydro	Subansri HEP		4.50	4.56	4.62	4.68
51		Nuclear	RAPP-D	4.83	4.89	4.96	5.02	5.09
52		Solar	New PPA			2.75	2.75	2.75
		Hydro	Total Future	4.62	4.36	3.99	4.03	3.80
Total Average Power Purchase Cost*				**3.66**	**3.73**	**3.73**	**3.77**	**3.77**

**Excluding sale of surplus power through exchange which is discussed in subsequent sections*

f) Inter-state transmission charges and losses

4.2.28 To project the inter-state transmission charges, Petitioner has escalated provisional transmission charges during FY 2024-25 by an escalation of 1% per annum based on actual increase in transmission charges over the last 2 years.

4.2.29 During FY 2024-25, there were one-time charges of Rs 64 Cr towards transmission and Rs 7.69 Cr towards NRPC which have been excluded while projecting the transmission and other charges in the MYT period.

4.2.30 The Petitioner has considered the transmission losses at 4.03% for each year of the Control period FY 2025-26 to FY 2029-30 as approved by the Hon'ble Commission in the Tariff Order for FY 2024-25 dated 25.07.2024.

4.2.31 The following tables show the transmission charges and losses considered for the next Control Period.

Table 34. Inter-state Transmission Charges considered for the next control period (Rs. Cr.)

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Interstate Transmission Charges	130.24	131.49	132.80	133.47	134.14

Table 35. Inter-state Losses (%) considered for the next control period

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Interstate Transmission Losses	4.03%	4.03%	4.03%	4.03%	4.03%

g) Short-term purchase/ sale

4.2.32 Petitioner expects to purchase power in short-term from exchanges or Traders or DEEP portal to fulfil its peak or shortfall requirements, if any. Further, the Petitioner also expects some surplus to be available during off-peak hours and would indulge in banking or sale of power in exchanges on a real-time basis. Accordingly, there is estimated net sale of power during the control period FY 2025-26 to FY 2029-30.

4.2.33 Short-term power purchase/ sale has been considered at a rate of Rs. 4.012 per unit based on the actual weighted average rate of net short-term sale during FY 2023-24 and FY 2024-25.

Table 36. Short Term Purchase/ Sale Projections

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Net purchase/ (Sale) in MU	-387.04	-438.91	-433.51	-317.62	-290.36
Net purchase/ (Sale) in Rs Cr	-155.28	-176.09	-173.92	-127.43	-116.49

4.3 Energy Requirement

4.3.1 Based on the energy sales and distribution loss trajectory forecasted for the control period, the petitioner has computed the energy balance for the control period based on the above projections:

Table 37. Energy Balance for the Control Period FY 2025-26 to FY 2029-30

Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Energy Available					
Total Power Purchase from Inter State Sources	2,547.94	2,698.03	2,798.77	2,798.77	2,899.51
Net Short Term Purchase/ (Sale)	-387.04	-438.91	-433.51	-317.62	-290.36
Total Power Purchase at UT periphery	2,160.90	2,259.12	2,365.26	2,481.15	2,609.15
CTU Losses – MU	87.08	91.04	95.32	99.99	105.15
CTU Losses - %	4.03%	4.03%	4.03%	4.03%	4.03%
Total Power Purchase availability	2,073.81	2,168.08	2,269.94	2,381.16	2,504.01
Energy Requirement					
Total Power Requirement at Discom periphery	2,073.81	2,168.08	2,269.94	2,381.16	2,504.01
Add: Net-Metering/Within State Solar	15.85	18.76	20.71	21.68	22.65
Power requirement at DISCOM Periphery	2,089.66	2,186.85	2,290.65	2,402.84	2,526.66
Less: Retail Sales to Consumers	1,834.01	1,928.05	2,028.74	2,137.71	2,257.97
Distribution Losses – MU	255.65	258.80	261.92	265.13	268.69
Distribution Losses - %	12.23%	11.83%	11.43%	11.03%	10.63%

4.4 Renewable Purchase Obligation

4.4.1 As per Regulation 3(I) of the JERC (Procurement of Renewable Energy) Regulations, 2010:

> *"Each distribution licensee shall purchase electricity (in kWh) from renewable energy) sources, at a defined minimum percentage of the total consumption of all the consumers in its area during a year"*

4.4.2 Further, the Hon'ble Commission has notified the JERC (Procurement of Renewable Energy) (Fifth Amendment) Regulations, 2024 on 28th May 2024. These regulations specify the year wise RPO targets for distribution licensee for the period FY 2024-25 to FY 2029-30 as shown below.

Table 38. Year-wise RPO Targets for DISCOMs

Minimum Quantum of Renewable Purchase Obligation (RPO) of Renewable Energy (in kWh)					
Financial Year	Wind renewable energy (Wind RPO)	Hydro renewable energy (HPO)	Distributed renewable energy RPO	Other renewable energy (Other RPO)	Total RPO (%)
2024-25	0.67%	0.38%	1.50%	27.35%	29.91%

Minimum Quantum of Renewable Purchase Obligation (RPO) of Renewable Energy (in kWh)					
2025-26	1.45%	1.22%	2.10%	28.24%	33.01%
2026-27	1.97%	1.34%	2.70%	29.94%	35.95%
2027-28	2.45%	1.42%	3.30%	31.64%	38.81%
2028-29	2.95%	1.42%	3.90%	33.10%	41.36%
2029-30	3.48%	1.33%	4.50%	34.02%	43.33%

4.4.3 CPDL envisages to meet its RPO obligation through the purchase of renewable power and may even exceed the RPO obligations based on its existing and planned capacity tie-ups.

4.4.4 The following tables show the Renewable Purchase Obligation for CPDL for the respective years:

Table 39. RPO Projections and Planning for FY 2025-26 (MU)

FY 2025-26				
Energy sales	**1,834**			
	Target	Requirement	Achievement	(Gap)/ surplus
Wind RPO	1.45%	27		(27)
HPO	1.22%	22	99	77
DRE RPO	2.10%	39	78	40
Other RPO	28.24%	518	1,488	970
Total RPO	33.01%	605	1,665	1,060

Table 40. RPO Projections and Planning for FY 2026-27 (MU)

FY 2026-27				
Energy sales	1,928			
	Target	**Requirement**	**Achievement**	**(Gap)/ surplus**
Wind RPO	1.97%	38		(38)
HPO	1.34%	26	245	219
DRE RPO	2.70%	52	107	55
Other RPO	29.94%	577	1,488	911
Total RPO	35.95%	693	1,841	1,147

Table 41. RPO Projections and Planning for FY 2027-28 (MU)

FY 2027-28				
Energy sales	2,029			
	Target	**Requirement**	**Achievement**	**(Gap)/ surplus**
Wind RPO	2.45%	50		(50)
HPO	1.42%	29	245	216
DRE RPO	3.30%	67	127	60
Other RPO	31.64%	642	1,589	947
Total RPO	38.81%	787	1,961	1,176

Table 42. RPO Projections and Planning for FY 2028-29 (MU)

FY 2028-29				
Energy sales	2,138			
	Target	Requirement	Achievement	(Gap)/ surplus
Wind RPO	2.95%	63		(63)
HPO	1.42%	30	245	215
DRE RPO	3.90%	83	137	53
Other RPO	33.10%	708	1,589	881
Total RPO	**41.37%**	**884**	**1,970**	**1,086**

Table 43. RPO Projections and Planning for FY 2029-30 (MU)

FY 2029-30				
Energy sales	2,258			
	Target	Requirement	Achievement	(Gap)/ surplus
Wind RPO	3.48%	79		(79)
HPO	1.33%	30	245	215
DRE RPO	4.50%	102	146	45
Other RPO	34.02%	768	1,689	921
Total RPO	**43.33%**	**978**	**2,081**	**1,103**

5. Capital Investment Plan

5.1. Regulatory Provision

5.1.1 As per the Regulation 8.6 of Tariff Regulations 2024, the Distribution Licensee is required to file the capital investment plan for the Control Period commencing from 01.04.2025, to 31.03.2030, before the Hon'ble Commission as part of the Tariff Filing. The relevant extract from the Tariff Regulations 2024 is reproduced below:

"8.6 Capital Investment Plan/Additional Capital Investment Plan

a) The Capital Investment Plan/Additional Capital Investment Plan to be submitted as part of Business Plan shall include details of New Projects/Renovation & Modernization of Existing Projects planned during the Control Period, purpose of investment, capital structure, implementation schedule, quarter-wise capital expenditure and capitalization schedule, financing plan, cost-benefit analysis, improvement in operational efficiency envisaged in each year of the Control Period owing to proposed investment and such details for ongoing projects that will spill over into the Control Period along with justification;

Provided that the Capital Investment Plan shall be submitted on scheme wise basis.

b) The Additional Capital Investment plan proposed by the Generating Company shall be in conformity with the Resource Adequacy Plans made by the SLDC;

c) The Capital Investment Plan proposed by the Transmission Licensee shall be in conformity with the plans made by the Authority/Central/State Transmission Utility and with the Capital Investment Plan of the Distribution Licensee;

d) The truing up of the capital cost incurred for the new projects and additional capital cost for the existing projects shall be done on yearly basis based on the actual capital cost incurred with a maximum deviation of 10%:

Provided if the actual capital cost incurred on year to year basis is lesser than 20% of the capital cost approved for determination of tariff by the Commission on the basis of the projected capital cost as on the date of commercial operation or on the basis of the projected additional capital cost, the excess tariff/revenue realized corresponding to excess capital cost as approved by the Commission, along with interest at 1.10 times of the Carrying Cost, as prevalent on the first day of April of the respective financial year, shall be adjusted from the annual revenue requirement of the respective year at the time of true-up.

Provided further that any capital cost in excess of 10% of the capital cost approved by the Commission, shall not be given pass through during true-up.

e) In case the capital expenditure is required for emergency work which has not been approved in the Capital Investment Plan, the Licensee shall submit an application containing all relevant information along with reasons justifying emergency nature of the proposed work seeking approval of the Commission:

Provided that in case capital expenditure is required for emergency work or unforeseen situation to mitigate threat to life and property and if prior intimation thereof to the Commission shall cause any irreparable loss or injury, the Licensee may undertake that capital expenditure and submit the details along with adequate justification for post facto approval of the Commission:

Provided further that for the purpose of Regulation 8.6(e) above, such approved capital expenditure shall be treated as a part of both the actual capital expenditure incurred by the Licensee and approved capital expenditure by the Commission;

Provided also that the Transmission Licensee or the Distribution Licensee as the case may be shall take up the work prior to receiving the approval from the Commission provided that the emergent nature of the scheme has been certified by its Board of Directors.

f) The Licensee shall submit a report for every quarter detailing the progress of the capital expenditure and capitalisation undertaken against that proposed in the Capital Investment Plan, on or before the last Day of the month succeeding the respective quarter for review by the Commission."

5.1.2 Based upon the above mandate, the CAPEX Plan proposals (scheme wise) for the MYT control period FY 2025-26 to FY 2029-30 have been formulated by the Petitioner to enable better planning, budgeting, and monitoring at macro & micro levels.

5.1.3 The Petitioner has conducted a preliminary survey of the existing distribution infrastructure and initiated physical verification of assets to assess ground realities. Notably, only three months have passed since taking over, Petitioner anticipates that the capital cost sought and to-be approved by the Hon'ble Commission may exceed the permissible threshold limit of 10%, as stipulated in the Second Proviso to Regulation 8.6(d) of the Tariff Regulations, 2024 and any excess beyond this limit shall not be eligible for pass-through during the true-up process which is undertaken by the Hon'ble Commission. Petitioner therefore prays that the Hon'ble Commission may be pleased to consider the principles of Section 61 more specifically Section 61 (e) which mandates Hon'ble Commission to lay down principles for rewarding efficiency and exercise its powers under Regulation 84 to 88 of Tariff Regulations, 2024 and relax Second Proviso to Regulation 8.6 (d) of the Tariff Regulations, 2024 for revising and or keeping in abeyance the threshold limit of 10% till Mid-Year Review under Regulation 11 of Tariff Regulations, 2024 by which time the Petitioner would have had better experience of the ground realities as well as the CAPEX that it would require in the next two years of the Control Period.

5.2. Introduction

5.2.1 The Petitioner is committed towards becoming a leading power distribution utility by modernizing its infrastructure and adopting state-of-the-art technologies. In this mission, CPDL is committed to ensuring a consumer-centric approach. Thus, the Petitioner aims to transform and modernize the distribution network in Chandigarh to deliver reliable, efficient and sustainable supply of electricity through the following:

a) **Consumer delight:** Prioritize consumer satisfaction by ensuring reliable power supply. Additionally, CPDL also plans to improve service delivery and provide long-term value for consumers

Chandigarh Power Distribution Ltd. CPDL

b) **Adoption of innovative solutions:** Leverage advanced, state-of-the-art smart grid technologies including predictive maintenance to optimize operational efficiency and enhance grid resilience

c) **Sustainability:** Invest in practices and technologies that promote energy efficiency and reduce environmental impact

d) **Stakeholder engagement:** Engage with stakeholders to ensure regulatory compliance and enable two-way communication with consumer representatives and other local communities.

5.3. Existing Distribution Network

5.3.1 The existing network structure of CPDL is illustrated below:

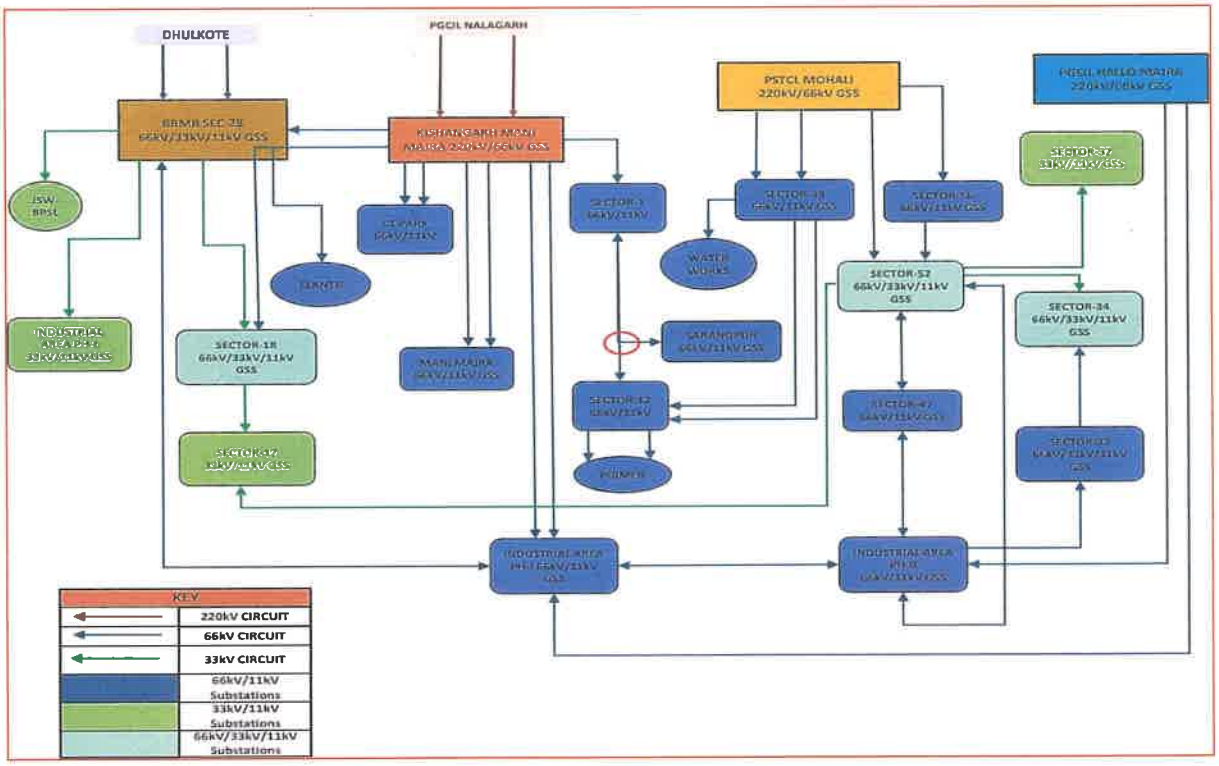
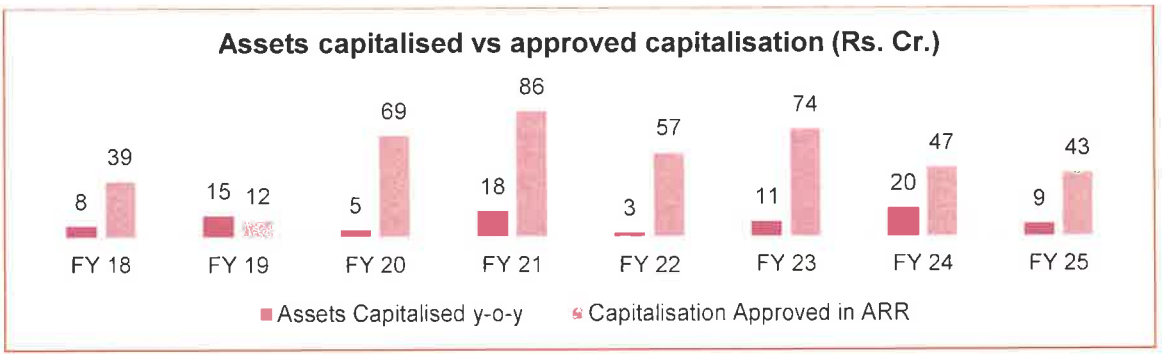


Figure 7. Existing Distribution Network of CPDL

5.3.2 Following the takeover, CPDL's preliminary survey of the assets transferred in February 2025 revealed an ageing and dilapidated distribution network in urgent need of an overhaul. The existing 66kV and 33kV substations pose significant risks to safety, supply continuity, necessitating the urgent replacement of power transformers and the upgrading of circuit breakers for reliability and safety in compliance with the provisions of Electricity Act and various guidelines issued by CEA. This situation had arisen due to reduced focus on capital expenditure over the past 7-8 years as has also been pointed out by the Hon'ble Commission in previous Tariff Orders, which has consequently impact on the operational efficiency of distribution and retail supply of electricity in the Union Territory of Chandigarh.

Figure 8. Assets Capitalised vs Approved Capitalisation for EWEDC (Rs. Cr.)



4.4.5 The above graph illustrates that the actual capitalization over the past 7-8 years has been significantly lower than the levels approved by the Hon'ble Commission. Infact as highlighted hereinabove in earlier sections relating to loss level targets, Hon'ble Commission has on several occasions expressed its concerns and emphasized the importance of undertaking capital expenditure activities to improve service quality and target 24x7 supply to all consumers and directed EWEDC to ensure that the capitalization targets approved are completed in the MYT Period. In response to this gap, the Hon'ble Commission has on several occasions expressed its concerns and emphasized the importance of undertaking capital expenditure activities. Relevant excerpts from the latest Tariff Order dated 25.07.2024 are provided below:

> ***"10.1.6. Non-achievement of capitalization target***
>
> ....
>
> *Commission's Response*
>
> *The Commission directs the Petitioner to increase its efforts towards undertaking capital expenditure activities as envisaged in Business Plan Order to improve the service quality and target 24x7 supply to all consumers. Further, the Petitioner is directed to ensure that the capitalization targets approved are completed in the MYT Period."*

5.3.3 As evident from the above, the Hon'ble Commission has emphasized the need to achieve capitalization targets to improve service quality and ensure 24x7 supply. Furthermore, the Petitioner aims to undertake prudent and efficient capital expenditure over the Control Period from FY 2025-26 to FY 2029-30 to reduce distribution losses, improve overall operational efficiency of the Discom and thereby provide consumers with 24x7 supply of clean, reliable and quality supply of electricity and service delivery.

5.3.4 The Petitioner also recognizes the urgent need to address technological deficiencies across its network. Many existing metering, automation system and communication systems are not in place or outdated, hindering operational efficiency and service quality including collection efficiency. To overcome these challenges, comprehensive upgrades to both Information Technology (IT) and Operational Technology (OT) infrastructures are being prioritized. It

includes the implementation of ERP system, Geographical Information System (GIS), Outage Management System (OMS), Advance Distribution Management System (ADMS) and upgradation of Supervisory Control and Data Acquisition (SCADA) systems, which will significantly improve real-time monitoring, control capabilities, historical data availability for planning and analysis and improve overall reliability and operational efficiency. Through these strategic enhancements, CPDL aims to not only strengthen the reliability of its power distribution network but also to deliver improved customer service by providing real time information to the consumers.

5.3.5 Thus, the Petitioner is also planning to adopt Advanced Metering Infrastructure (AMI) which shall comprise of installing smart meters and replacement of existing conventional meters, to improve billing accuracy and reduce losses from pilferage.

5.3.6 The present distribution network is at different voltage levels of 220 KV, 66 kV, 33 kV, 11 kV and LT Level and comprises of distribution network cables and overhead wires, power and distribution transformers, meters and its associated equipment etc. in distribution network of CPDL area.

5.3.7 Based on the preliminary survey, it is observed that majority of the assets are overloaded and outdated which require immediate replacement or augmentation in order to maintain the reliable distribution network in Chandigarh area. Some of the challenges identified by the preliminary survey are illustrated below:

a) Ageing infrastructure and frequent equipment failures creating service reliability issues;
b) Inadequate safety systems presenting risks to staff and consumer safety contrary to the mandate of safety Regulations and Guidelines issued by CEA;
c) Non-availability of back-feeding source due to absence of N-1 redundancy at various voltage levels;
d) Radial power distribution network exists in some sections of the network;
e) High involvement of manual processes causing inefficiencies and inaccuracies;
f) Lack of customer interaction channels affecting customer experience and satisfaction levels;
g) Outdated non-communicable electromechanical or static relays for overcurrent or distance protection are used which lack advanced communication features and modern fault analysis capabilities. As a result, fault detection may be delayed, and response times are slower compared to modern numerical relays. Additionally monitoring & control of feeders from SCADA is not possible. This compromise system reliability, selectivity, and speed of fault clearance;
h) Distance relays have been installed on short 66 kV lines (less than 5 km), where they face technical limitations in sensitivity due to the short line length. This often results in either

non-operation during faults or nuisance tripping, thereby affecting the overall reliability and accuracy of the protection scheme;

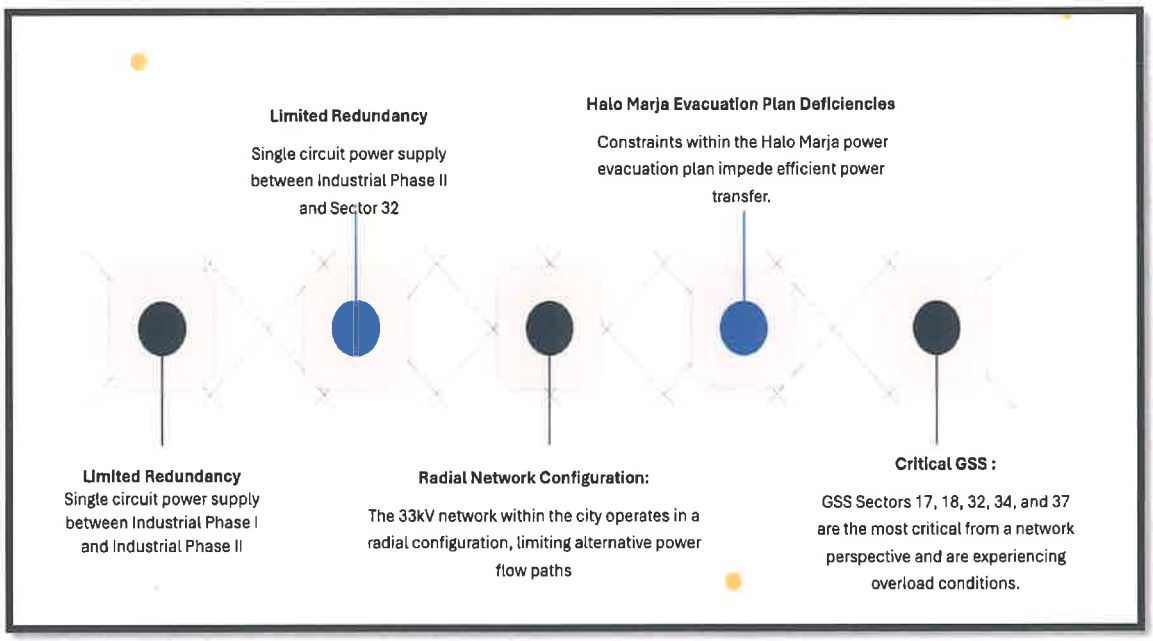
i) Old, obsolete, or undersized equipment—such as PILCA cables, overhead lines, and outdated transformers requiring high maintenance burdens, and hinders overall system performance;

j) Damaged, fault-prone equipment (e.g., cables with multiple joints, old transformers) which requires conversion of overhead lines to underground systems creating hazards to the public;

k) Concerns also persist on the accuracy of the installed meter base, as meters from various OEMs have been deployed without a unified technical specification;

l) Most of the Distribution Transformers are not installed nearest to the load centrecenter indicating increase in line length which will have impact in operational losses; and

m) Lack of customer interaction channels affecting customer experience and satisfaction levels



5.3.8 The Petitioner is also presenting the observations from the Preliminary Equipment Assessment for the perusal of the Hon'ble Commission in the following paragraphs:

(i) **Power Transformers:** The system currently operates 46 power transformers, which resulted in the following observations:

- Ageing Infrastructure: 19 transformers (≥ 30 years) are aging and require close monitoring to avoid failures.
- Oil Testing: Regular BDV (Breakdown Voltage), PPM (Moisture Content), and DGA (Dissolved Gas Analysis) tests are necessary to assess insulation and oil quality.

- Tap Changer Maintenance: Due to frequent voltage complaints, preventive maintenance of tap changers should be initiated. However, before commencing, availability of spare parts must be ensured, as maintenance has not been performed since the purchase of transformers.

Thus, it is essential to conduct condition assessment of transformers older than 30 years to decide on phased replacement or refurbishment. Moreover, it is also essential to initiate a tap changer maintenance program to improve voltage stability.

(ii) **Circuit Breakers:** The observations of the survey are illustrated below:

- Ageing Infrastructure: Many MOCBs, BOCBs, and OCBs have exceeded their expected operational life, increasing the risk of failure.
- Gas Leakage in SF6 Breakers: The gas leakage in CGL SF6 breakers at 66kV and 33kV levels compromises system reliability.
- Lack of Spare Parts for Old VCBs: Many aged VCBs are outdated, and spare parts are no longer available, making repairs difficult.
- Safety Risks: The continued operation of outdated breakers poses serious safety hazards to personnel and infrastructure.

In view of the above, it is submitted that phased replacement strategy for all MOCBs, BOCBs and OCBs with modern VCBs or SF6 breakers is essential to improve safety and reliability. Moreover, condition assessment of older VCBs is the need of the hour to determine necessary upgrades and identify critical locations where due replacement is required.

(iii) **Capacitor Banks:** It was found that several capacitor banks are out of service due to disconnection or defective units. In view of the criticality of capacitor banks in power factor improvement and voltage stabilization, station-wise assessment to identify non-functional capacitor banks is urgently needed along with a preventive maintenance plan to avoid failures in the future.

(iv) **Battery Bank and Charger:** Many Grid Substations have deteriorated lead-acid battery banks, impacting backup power reliability. Moreover, it was also observed that some substations rely on rented battery banks. Thus, it is critical to duly replace aged lead-acid battery banks to ensure uninterrupted supply of power.

5.3.9 In view of the above, the Capital Investment Plan as proposed in the instant Petition also covers the upgradation of existing feeders, augmentation of existing network infrastructure, replacement and/or refurbishment of ageing infrastructure, and conversion of overhead to underground lines to improve the network reliability. Further, to enhance the system's reliability,

CPDL has also specifically planned Capital Investment for maintaining N-1 redundancy in Chandigarh area.

5.3.10 Further, the Network planning & designing is done based on "Peak Load" which a network or an element is likely to experience in its midterm future say 5-6 years. The peak demand experienced by CPDL in the past years is reproduced below:

Table 44. Peak load of Chandigarh from FY 2017-18 to FY 2024-25

Particulars	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25
Peak Load	363	369	431	383	426	407	411	449

**Source: CEA*

5.3.11 The demand projections for the period from FY 2025-26 to FY 2029-30 have been made based on growth in demand aligning it with the sales forecast as shown below:

Table 45. Peak load projections for Chandigarh for the control period FY 2025-26 to FY 2029-30

Particulars	FY 26	FY 27	FY 28	FY 29	FY 30
Peak Load (MW)	472	496	522	550	581

5.3.12 Thus, y-o-y demand for CPDL is proposed to be as given below:

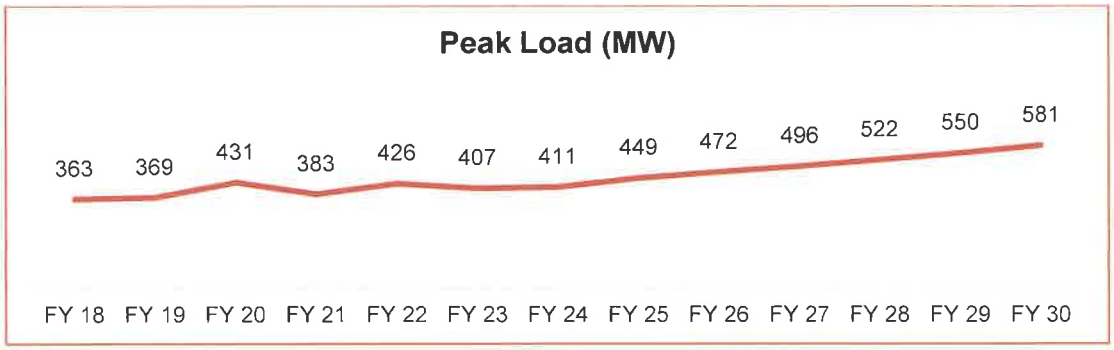


Figure 9. Year-on-year peak demand of Chandigarh

5.3.13 Thus, the energy demand at the distribution periphery is expected to rise over the next 5 years, leading to a corresponding increase in peak demand for UT. Thus, it becomes more pertinent to strengthen and modernize the distribution network of the Petitioner to meet overall demand of all consumers by providing reliable power supply to them.

5.3.14 Furthermore, the existing Power Transformer (PT) capacity to peak demand ratio is 1.56 for FY 2024-25, which falls well short of the optimal value of 2. To improve the PT capacity to peak demand ratio to maintain N-1 redundancy, CPDL is planning to undertake the capital investment plan to enhance the PT capacity, as shown below:

Table 46. PTR capacity to peak demand ratio

Particulars	UOM	Actual	Projected (As per Capex Plan)				
		FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30
Effective PT capacity	MVA	702	802	861	894	989	1052
Peak Demand	MW	449	472	496	522	550	581
PT/Peak demand	Ratio	1.56	1.70	1.74	1.71	1.80	1.81

5.3.15 This adjustment is crucial to accommodate the anticipated growth in demand and to maintain system reliability and efficiency.

5.3.16 Thus, the above circumstances led to the requirement that the Distribution network of the Petitioner needs to be developed and strengthened in such a way that demand of such consumers can be met, and reliable power supply can be made available to all consumers. Most of the capital expenditure is required to address this demand requirement and improve system reliability.

5.4. Overall Approach for Capital Investment Plan

5.4.1 As illustrated above, the distribution network inherited by the Discom is ageing and in urgent need of upgradation and augmentation. Moreover, there is a need to enhance network reliability, implement modern monitoring and automation technologies, thereby strengthening the distribution network to meet future load growth. With these objectives in mind, the Petitioner is proposing a Capital Investment Plan for the Control Period commencing from FY 2025-26 to FY 2029-30. The overarching philosophy of the Capital Investment Plan is as under:

"To ensure reliable, uninterrupted and quality supply of electricity through a state-of- the-art 100% resilient Self-Healing Grid with complete visibility and n-1 criteria for all network elements"

5.4.2 To achieve the objective of the Capital Investment Plan, the following interventions would be required:

a) **Network augmentation** to reduce overloading of existing infrastructure and prioritize replacement of ageing assets to mitigate risk of equipment failure
b) **Strengthen distribution network** to cater to the ongoing global trends of decarbonization and decentralization, with the concomitant rise in consumers as prosumers
c) **Overhauling of metering infrastructure** to bring in best-in-class Metering, Billing and Collection practices to improve operational efficiency
d) **State-of-the-art technology adoption** to ensure digitalization and thereby provide complete grid visibility. Technology adoption is also essential to revamp existing customer services and efficiently deliver reliable and quality supply of electricity while adhering to all Rules and Regulations.

5.4.3 Another facet of the Capital Investment Plan proposed by the Petitioner arises out of ensuring that the schemes proposed to be implemented incorporate best-in-class measures being adopted among leading Utilities in India and across the globe.

Best practices adopted by other Distribution Utilities

5.4.4 In India, utilities such as Tata Power Delhi Distribution Limited (TPDDL), Tata Power Central Odisha Distribution Limited (TPCODL), Tata Power Company Limited (TPCL), and Adani Electricity Mumbai Limited (AEML) have demonstrated excellence by focusing on customer-centric innovations, robust infrastructure, and the integration of smart technologies. These companies prioritize reliable energy supply, efficient grid management, and proactive maintenance strategies, ensuring minimal service disruptions and enhanced customer satisfaction.

Table 47. Initiatives taken by Indian Utilities for Grid Modernization

Area	Initiative of domestic peers
Grid modernization	i. SCADA/ ADMS ii. Substation Automation System based on IEC61850 iii. Fault passage indicator (FPI) iv. Power Transformer Health Monitoring v. Smart DT and pillars vi. Compact and tower-mounted substation vii. Voice assisted Switchgear viii. IOT Enabled Monitoring System for Remote Substations for accessing breaker trip status, DT trouble status, etc. ix. Installation of auto recloser for automatically restoring power after transient faults
Technology adoption	i. ERP ii. Network analysis and planning tools iii. DERMS iv. Data lake v. P2P Energy Trading Platform vi. Thermal Imaging of Electrical Installations
Customer service enhancement	i. maRC (mobile GIS assisted with restoration and care) for digital complaint management

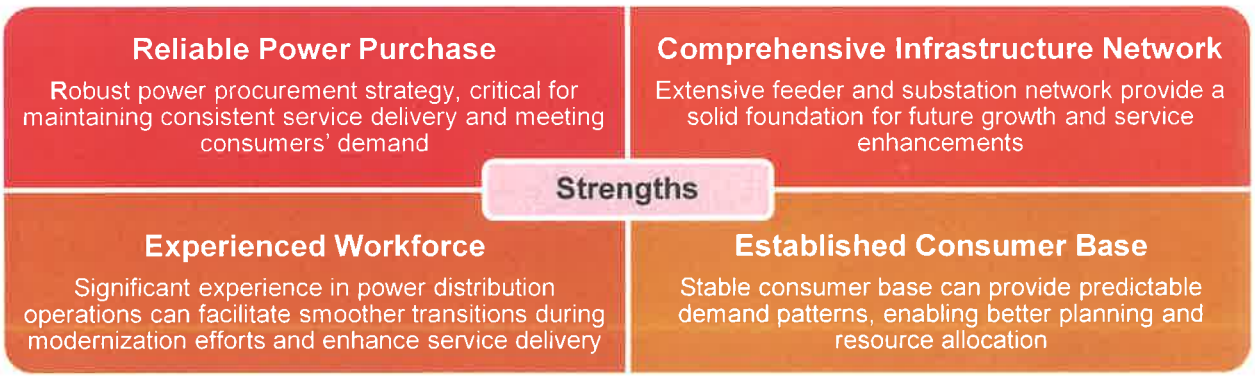
5.4.5 Globally, utilities like San Diego Gas & Electric (SDG&E) and Kansas City Power & Light (KCPL) in the USA are recognized for their advanced approach to energy management. They excel in areas such as renewable energy integration, cutting-edge smart grid technology, and comprehensive sustainability initiatives. SDG&E and KCPL emphasize community engagement and employee training to foster innovation and maintain operational excellence, setting high standards in the utility sector.

Table 48. Initiatives taken by global utilities

Area	Initiative of global peers
Technology adoption	i. Distributed Energy Resource Management ii. Non-Billing Smart Meter Data Analytics iii. Conditional based predictive maintenance iv. Microgrid and battery storage systems
Customer service enhancement	i. Home Area Network (HAN) Device to enable two-way communication between the consumer's smart appliances and the utility to enhance energy efficiency measures

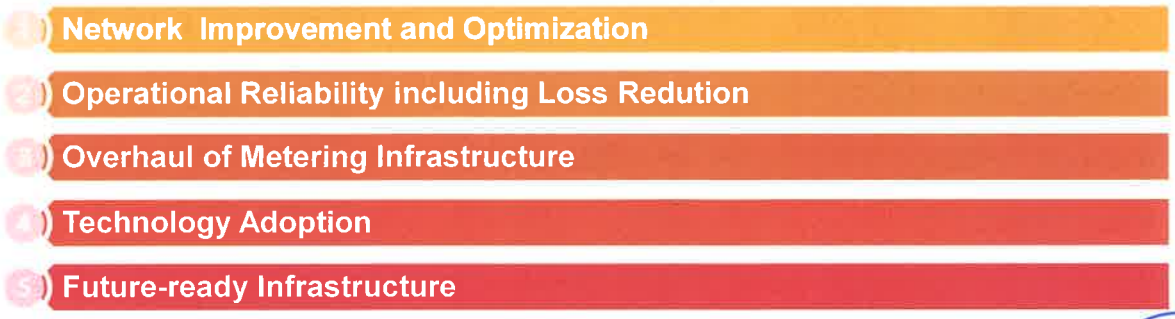
5.4.6 Thus, the Capital Investment Plan proposed by the Petitioner incorporates the best practices being adopted by various Utilities to ensure that the extant challenges are effectively redressed, while ensuring that CPDL provides reliable, uninterrupted and quality supply of electricity to consumers. While adopting the various learnings from leading Utilities, CPDL aims to leverage and capitalize on its advantages, as illustrated below:

Figure 10. Key strengths of CPDL



5.4.7 In view of the above, CPDL is proposing a Capital Investment Plan for four major opportunity areas, as identified below:

Figure 11. Opportunity areas identified for CAPEX for CPDL



5.4.8 The total capital expenditure under each of the four major opportunity areas is summarized below:

Table 49. CAPEX Summary for the control period FY 2025-26 to FY 2029-30 (Rs. Cr.)

SN.	Particulars	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Grand Total
A	Network Improvement and Optimization						
A.1	66 kV and 33 kV level	22	48	39	24	13	146
a)	New Feeder	7	36	24	9	4	79
b)	New 66 kV Grid Sub-station (GSS)	-	6	6	-	-	13
c)	New Switchgear	1	1	1	-	-	2
d)	Interconnector	-	2	2	-	-	4
e)	PTR Addition	14	3	7	14	9	47
A.2	11 KV and LT level	15	23	15	9	4	67
a)	11 kV New Feeder	6	8	2	1	2	19
b)	LT New Feeder	1	1	-	-	-	1
c)	Transformer Addition	9	13	9	6	3	40
d)	Compact Sub Station (CSS)	-	2	3	2	-	7
	Total: Network Improvement and Optimization	37	72	54	32	17	212
B	Operational Reliability and Loss Reduction						
B.1	66 kV and 33 kV level	26	22	38	18	15	119
a)	Battery & Battery Charger Replacement	1	0.2	-	-	-	1
b)	Protection Upgradation	3	2	4	-	-	9
c)	PTR Upgradation	11	-	11	12	12	47
d)	Switchgear Replacement	11	7	5	2	3	28
e)	33 kV to 66 kV Conversion	-	12	18	4	-	34
B.2	11 KV and LT level	26	45	53	18	12	154
a)	LT distribution box	-	2	9	-	-	11
b)	Fencing	1	0.4	0.2	0.2	-	2
c)	Ring Main Unit (RMU)	-	3	5	4	2	14
d)	Replacement of theft-prone conductors	15	9	6	1	0	31
e)	Switchgear Replacement	2	10	7	4	1	24
f)	11 kV feeder augmentation	8	11	10	3	3	36
g)	Transformer upgradation	-	9	16	6	6	37
	Total Operational Reliability and Loss Reduction	52	67	91	36	26	273
C	Safety	3	3	3	2	2	13
D	Overhaul of Metering Infrastructure						
a)	Metering	29	77	48	12	11	176
b)	New Connection	9	9	3	3	3	27
	Total Overhaul of Metering Infrastructure	38	86	51	15	14	203
E	Technology Adoption						
a)	Consumer Experience Transformation	1	2	2	1	1	

SN.	Particulars	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	Grand Total
b)	Technology Implementation, Upgradation and Enhancements	1	2	5	2	2	13
c)	Efficiency Improvements	0.2	0.4	1	0.5	0.2	2
d)	Digital Documentation and transition to Paperless Office for Sustainability	-	3	4	4	4	13
e)	Intervention Using Cutting-Edge Technologies	-	3	6	5	4	17
f)	Data Information and Cyber Security	2	5	5	2	0	14
g)	IT Data Centre and Disaster Recovery Centre Establishment	2	2	1	1	1	7
h)	End User, Network, Devices and Peripherals	5	4	3	3	3	17
i)	Purchase of Software Licenses	1	1	5	2	-	9
j)	AUTOMATION-SAS/SCADA/FANA/Communication Infra	3	11	2	3	5	25
k)	GIS	6	0	1	1	0	8
	Total Technology Adoption	**20**	**32**	**34**	**25**	**20**	**132**
F	**Future-ready Infrastructure**						
F.1	Office Infrastructure	13	37	32	15	5	102
a)	Construction of Store & office furnishing at Sector 52	1	-	-	-	-	1
b)	Interior furnishing works of EHV Office at Kishangarh	1	-	-	-	-	1
c)	Interior furnishing works of Division Office at Industrial Area Phase 1	0.2	-	-	-	-	0
d)	Office setup for Metering LAB at IA Phase-2	1	-	-	-	-	1
e)	Skill Development Centre at IA Phase-2	-	2	2	-	-	4
f)	Construction of Corporate office at Sector 17	-	15	15	-	-	30
g)	Construction of Customer Care Office	-	-	5	5	-	10
h)	Revamping of GSS & Indoor Substations	5	10	5	5	5	30
i)	Misc. office setup & revamping	5	10	5	5	-	25
F.2	Tools Tackles and Vehicles	10	5	2	2	2	21
a)	Tools and Tackles	9	3	1	1	1	15
b)	Vehicles	1	2	1	1	1	6
	Total Future-ready Infrastructure	**23**	**42**	**34**	**17**	**7**	**123**
	Total CAPEX	**174**	**302**	**267**	**127**	**86**	**956**

5.4.9 It is submitted that the capital investment plan has been prepared by the Petitioner based on preliminary survey of the inherited distribution network, legacy issues pending for compliance by the EWEDC such as energy audits, smart grid projects, etc., T&D loss as reported in the audited financial statements and Discom's experience since takeover of operations on 01.02.2025. Furthermore, the Petitioner has also sought to bring in best-in-class initiatives

undertaken by various leading national and international distribution utilities in service of the overall vision behind the proposed capital investment plan, as enumerated in the preceding paragraphs.

5.4.10 As also submitted in the earlier paragraphs, the Petitioner has commenced an audit of baseline loss and physical verification of assets with an intention to prepare the Fixed Asset Register after physical verification of assets. Thus, the capital investment proposed herein is based on preliminary understanding of the realities of the distribution network with due reliance placed on available data. Completion of aforementioned audits may require the Petitioner to duly modify the proposed capital investment plan. Thus, the Petitioner humbly requests the Hon'ble Commission to allow the Discom to make revised submissions, as may be required in the interest of justice, during the course of proceedings of the Business Plan or during True up or Mid-Term Review.

5.4.11 In the following paragraphs, the Petitioner has taken due care to ensure that the Capital Investment Plan prepared for the Control Period from FY 2025-26 to FY 2029-30 is submitted with due justification stating the purpose of investment with necessary justification. Furthermore, the Petitioner envisages a consistent improvement in operational efficiency as a result of the proposed investment, duly addressing the challenges as identified in the Preliminary Equipment Assessment submitted in the earlier paragraphs. Additionally, the Petitioner has also taken due consideration to ensure that the recommendations of the Preliminary Assessment done by the Petitioner are duly incorporated in the proposed Capital Investment Plan.

5.4.12 However, as submitted in the earlier paragraphs, the metering infrastructure of the inherited distribution infrastructure is obsolete, with considerable overhaul of the metering infrastructure a need of the hour. Due to absence of 100% Feeder and DT Metering, the anticipated benefits of the proposed Capital Investment Plan cannot be duly quantified. However, the need for due investment is once again reiterated and the Petitioner requests the Hon'ble Commission to consider the submissions made herein.

5.5. Network Improvement and Optimization

5.5.1 Post takeover of operations by CPDL, the DISCOM commenced on a GSS equipment assessment report to assess the status of the inherited grid substation network. The findings revealed that the current network faces critical challenges due to overloaded transformers, ageing infrastructure, and lack n-1 network redundancy. The critical findings of the survey are detailed below:

(i) Many power transformers, particularly the 12.5 MVA units, have been in operation for over 25 years and are increasingly prone to faults leading to operational inefficiencies and associated losses;

(ii) 33 kV network assets aged over 40 years old and operate in a radial configuration which limits network reliability and redundancy

(iii) Outdated equipment, including electromechanical and static relays, as well as circuit breakers for 66 kV and 11 kV systems compromise power supply reliability

(iv) A substantial portion of the network relies on overhead lines, which are prone to weather-related disruptions and pose safety risks in densely populated areas

(v) The current setup predominantly provides a single source of power supply, which increases the likelihood of service interruptions in case of network failures

(vi) Absence of fencing around transformers and disorganized low-tension network jeopardize both infrastructure and public safety.

(vii) The current system lacks modern elements like Ring Main Units (RMUs) and advanced switchgear, which limits the efficiency of electricity management and distribution.

5.5.2 Along with the above specified issues, the PTR capacity to peak demand ratio is 1.56 for FY 2024-25. As per CEA, peak demand has increased by 17% from 383 MW in FY 2020-21 to 449 MW in FY 2024-25. Additionally, the energy demand at the distribution periphery is expected to rise over the next 5 years, leading to a corresponding increase in peak demand for UT and resulting in overloading transformers.

5.5.3 These issues highlight the urgent need for a thorough upgradation of existing network infrastructure to improve the reliability, efficiency, and safety of Chandigarh's power distribution system.

5.5.4 Based on above, the current scheme focuses on creating infrastructure to meet growing demand, facilitate power evacuation from import feeders and establishing n-1 contingency network for enhanced reliability.

66 KV New schemes

a) New Feeder

5.5.5 The current power infrastructure faces several challenges, including limited redundancy and potential supply failures at various substations. To address these issues, a series of new 66 kV underground feeders is proposed, primarily from the 220 KV PGCIL Hallo Majra GSS to multiple sectors and substations. These feeders aim to provide alternative supply paths, and ensure reliability and N-1 contingency, crucial for uninterrupted power supply and minimizing

downtime. By establishing additional sources, such as connecting the IT Park to PGCIL Hallo Majra via Sector-26 and ensuring redundancy for Sector-1, Sector-34, and Sector-39, the new feeders will optimize existing capacity, support load growth, improve network stability, and ensure uninterrupted power supply in the face of outages or infrastructure changes.

5.5.6 The total CAPEX requirement (Rs. crores) for the 66 kV New Feeder scheme for the next control period is provided in the table given below:

Table 50. CAPEX towards new 66 KV Feeder schemes (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
66 KV New Feeder	7	36	24	9	4	79

b) New 66 KV Grid Sub-station (GSS)

5.5.7 The current power infrastructure in Sector-34 faces challenges due to outdated and insufficient supply sources, risking reliability and inability to support future load increases. Establishing a new 66/11 kV Grid Sub-Station (GSS) in sector-34 is critical to mitigate these issues by enhancing power supply reliability and supporting anticipated load growth. The new GSS will provide an updated, robust power source, improve network stability, reduce the risk of outages, and facilitate infrastructure upgrades from 33/11 kV to 66/11 kV, ensuring the sector meets the increasing energy demands effectively.

5.5.8 The total CAPEX requirement (Rs. crores) for new 66 kV sub-station scheme is planned during FY 2026-27 as shown in the table given below:

Table 51. CAPEX towards new 66 KV Sub-station (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
New GSS	0	6	6	0	0	13

c) New Switchgear

5.5.9 With installations of above new feeders, such as those from the 220 KV Kishangarh and the proposed Sector-26 GSS, and the installation of additional components like a 20 MVA Power Transformer (PTR), the switchgear becomes essential for managing and directing the flow of electricity efficiently.

5.5.10 Additionally, the proposed interconnector between 66 KV IA Phase 1 and 33 kV IA Phase 1 requires additional bays to ensure seamless integration and operational flexibility. Similarly, bay extensions at specific substations, like Sector-47 GSS, are necessary to accommodate new feeders, ensuring that the electrical grid can handle increased loads and maintain stability. The installation of new switch gear will support the infrastructure's expansion, enhance operational safety, and improve the overall reliability of the power supply system.

5.5.11 The total CAPEX requirement (Rs. crores) for the New Switchgear scheme for the next control period is provided in the table given below:

Table 52. CAPEX towards New Switchgear schemes (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
New Switchgear	1	1	1	-	-	2

d) Interconnector

5.5.12 The existing infrastructure at the proposed EV Charging Station in Sector-52, Chandigarh, lacks sufficient power supply sources to ensure reliable and uninterrupted service. Implementing the LILO (Line-In Line-Out) of the existing 66kV interconnectors between Sector-47 to Sector-52 GSS and Sector-37 to Sector-34 GSS is crucial to address this issue. This intervention will provide two independent 66 kV sources, enhancing the stability and reliability of power supply to the charging station. Additionally, it ensures redundancy, which is essential for minimizing downtime and maintaining continuous operation, thereby supporting the growing demand in the area.

5.5.13 The total CAPEX requirement (Rs. crores) for the Interconnector scheme for the next control period is provided in the table given below:

Table 53. CAPEX towards Interconnector (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
Interconnector	-	2	2	-	-	4

e) PTR Addition

5.5.14 The existing transformers are experiencing overloading, resulting in forced load shedding during peak summer months (e.g. in IT park GSS), which compromises the reliability of the power supply. To mitigate this issue, it becomes crucial to install new Power Transformers (PTR) having capacity of 20 MVA. The installation of new Power Transformer (PTR) will share the additional load borne by the existing transformer and also provide N-1 contingency, significantly enhancing system reliability and also meeting the future demand. Furthermore, the new PTR will support the overburdened transformers situated at Mani Majara Grid Sub-Station (GSS), ensuring more stable power distribution across the area.

5.5.15 The total CAPEX requirement (Rs. crores) for PTR Addition scheme for the next control period is provided in the table given below:

Table 54. CAPEX towards Power Transformer (PT) Addition (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
PTR Addition	14	3	7	14	9	47

5.5.16 The detailed scheme wise justification of 66 KV and 33 KV schemes under this category is enclosed as **Annexure – 1**.

Cost-Benefit Analysis

5.5.17 The proposed schemes are envisaged to result in myriad benefits such as improved network reliability, operational efficiency and consumer satisfaction. The proposed schemes will ensure that the network is duly equipped to meet the challenges of increasing peak demand. Furthermore, on account of the challenges posed by the dilapidated nature of the inherent distribution network, the proposed schemes are essential and are of critical importance to ensure system reliability, meet growing demand and enhance service quality.

5.5.18 It is worthwhile to note that while a detailed financial cost-benefit analysis would not be possible, the benefits of the scheme are intangible and are focused towards improvement of service reliability by ensuring N-1 contingency. Thus, the proposed schemes ensure that the challenges as identified by the preliminary survey are duly addressed, which would lead to empowering the consumer through uninterrupted, quality and reliable supply of power.

11 KV and LT Schemes

a) 11 KV New Feeder

5.5.19 The existing power infrastructure faces significant challenges with overloaded overhead feeders, leading to frequent tripping, particularly during peak summer months. This situation compromises the reliability of the power supply in several areas. The introduction of new 11 kV underground feeders is essential to alleviate the excessive load on current feeders, ensuring a stable and uninterrupted power supply. By providing additional new feeders, the network will benefit from enhanced load distribution, reduced stress on existing infrastructure, and improved voltage conditions.

5.5.20 The total CAPEX requirement (Rs. crores) for 11 kV New Feeder scheme for the next control period is provided in the table given below:

Table 55. CAPEX towards 11 KV New Feeder (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
11 kV New Feeder	6	8	2	1	2	19

b) LT New Feeder

5.5.21 The existing LT feeder infrastructure across various sectors in Chandigarh is plagued by outdated cables and numerous joints, leading to frequent faults and service interruptions. This

situation compromises the reliability and efficiency of the power supply network, especially during peak demand periods. The proposed replacement and augmentation of LT cables with modern XLPE cables and conversion to underground systems where necessary will enhance the load-bearing capacity, reduce susceptibility to faults, and improve overall network resilience.

5.5.22 The total CAPEX requirement (Rs. crores) for LT Feeder scheme for the next control period is provided in the table given below:

Table 56. CAPEX towards LT Feeder (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
LT Feeder	1	1	-	-	-	2

c) Installation of New Distribution Transformer (DT)

5.5.23 The current infrastructure of new Distribution Transformer (DT) in Chandigarh is facing significant challenges due to outdated, overloaded systems, leading to frequent service interruptions and inadequate power supply to meet growing demand. To address these critical issues, the installation of new 400 KVA transformers is proposed across various locations. This intervention will de-load existing overloaded networks, improve reliability, and enhance the capacity to support future load growth. By reducing the length of the existing LT network and replacing obsolete transformers, this intervention ensures stable and continuous power delivery

5.5.24 The total CAPEX requirement (Rs. crores) for Distribution Transformer Addition scheme for the next control period is provided in the table given below.

Table 57. CAPEX towards Transformer Addition (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
Transformer Addition	9	13	9	6	3	40

d) Compact Substation (CSS)

5.5.25 The current state of transformers within existing substations is marked by significant overload conditions, coupled with physical infrastructure constraints that prevent further augmentation to meet growing demand. This situation poses a consistent danger to inhabitants due to the open structure of pole-mounted transformers and their numerous exposed points. The installation of the new Compact substation (CSSs) addresses these issues by providing additional capacity closer to consumption points, enhancing safety in highly populated areas, and improving system efficiency. CSSs effectively replace pole-mounted transformers, reducing the risk of untoward incidents in areas with high public footfall while alleviating the overload on existing infrastructure.

5.5.26 The total CAPEX requirement (Rs. crores) for this scheme for the next control period is provided in the table given below:

Table 58. CAPEX towards Compact Sub-station (CSS) (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
Compact Substation (CSS)	0	2	3	2	0	7

Cost-Benefit Analysis

5.5.27 The primary benefit of the proposed schemes lie in the strengthening of the distribution network to meet the envisaged increase in peak load and improve supply reliability through critical load centers. It is also submitted that while it is not possible to quantify the measurable financial gain accruing from the proposed schemes, the criticality of the schemes can be gauged from the intended benefits to the consumers through sustained system performance, minimizing unplanned outages and enhance consumer satisfaction. The proposed schemes are also expected to enable the Discom to accommodate anticipated load growth, reduced system downtime and maintain quality of supply standards.

5.5.28 Furthermore, the proposed schemes are also envisaged to result in enhanced reliability and operational resilience of the LT network. Other intangible benefits expected as a result of the proposed schemes include improved voltage regulation, balanced loading, minimized downtime and reduction in feeder-level outages.

5.5.29 The detailed scheme wise justification 11 KV and LT schemes under this category is enclosed as **Annexure – 2**.

5.6. Operational Reliability and Loss Reduction

5.6.1 Post takeover, CPDL's preliminary analysis of the existing network identified several critical issues needing attention. Aging infrastructure and frequent equipment failures are compromising service reliability. Inadequate safety systems are posing risks to staff and consumers. Outdated relays are affecting fault detection and response times. Old or undersized equipment, such as PILCA cables and transformers, burdens maintenance and hinders performance. Additionally, damaged and fault-prone equipment necessitates converting overhead lines to underground systems to mitigate public hazards.

5.6.2 Additionally, the T&D loss recorded over the past few years is consistently higher than the values approved by Hon'ble Commission in True-up and APR orders:

Table 59. Actual vis-à-vis Approved T&D Losses (Rs. Cr.)

Parameter	FY 21-22	FY 22-23	FY 23-24	FY 24-25
Actual/ Reported T&D Loss*	12.88%	10.57%	13.47%	12.63
Approved T&D Loss Target	9.20%	8.80%	8.40%	8.00%

**Losses till FY 2021-22 are as Trued-Up by the Hon'ble Commission. Figures for FY 2022-23 onwards are based on available information and subject to True-Up by the Hon'ble Commission*

5.6.3 The schemes under this category aim at improving reliability and reduction of losses by replacing or augmenting existing outdated/obsolete assets.

66 KV and 33 KV New schemes

a) Battery & Battery Charger Replacement

5.6.4 The existing battery banks and chargers at various GSS are outdated and damaged, posing significant risks to the reliability and safety of power operations. Replacing these aged components is crucial to ensure uninterrupted power supply, as batteries are essential for providing backup power during outages and maintaining critical functions. Upgrading to modern, efficient battery systems will enhance operational reliability, reduce maintenance costs, and improve the overall resilience of the power network, thereby supporting stable and continuous service delivery.

5.6.5 The total CAPEX requirement (Rs. crores) for Battery and Battery Charger Replacement scheme for the next control period is provided in the table given below:

Table 60. CAPEX towards Battery and Battery Charger Replacement (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
Battery & Battery Charger Replacement	1	0.21	-	-	-	1

b) Protection Upgradation

5.6.6 The current protection system utilizing electromechanical and static relays is outdated and struggles with operational limitations, particularly on short 66 kV lines (<5 km) where distance relays are over 25 years old. This situation poses risks to reliability and efficient network operation. Upgrading to modern numerical relays that comply with IEC 61850 standards will significantly enhance protection, monitoring, and control capabilities. This transition will enable seamless feeder monitoring and control through the SCADA control room, improving operational efficiency and ensuring reliability. Furthermore, replacing the old distance relays with Line Differential Protection will address these limitations by improving response time and providing better point-to-point protection for the network, thereby reducing the risk of outages and enhancing overall system stability.

5.6.7 The total CAPEX requirement (Rs. crores) for Protection Upgradation scheme for the next control period is provided in the table given below:

Table 61. CAPEX towards Protection Upgradation (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
Protection Upgradation	3	2	4	-	-	9

c) PTR Upgradation

5.6.8 As specified above, many power transformers (PTR), particularly the 12.5 MVA units, have been in operation for over 25 years and are prone to faults. Additionally, the current PTR capacity to peak demand ratio (1.83) falls short of the optimal value of 2. Thus, to accommodate the increasing demand in the next 5 years and to avoid overloading of existing transformers, replacement of these existing 66/11 kV 12.5 MVA PTR with a 20 MVA PTR is essential to enhance reliability, capacity and address the issue of aged transformers, overloading, and their vulnerability to faults. The upgrade will increase power supply capacity, provide N-1 redundancy, and accommodate future load growth, particularly critical for areas like the VVIP sector in Chandigarh that require stable and uninterrupted power. Such capital investment planning is undertaken to reduce the operational losses arising from outdated and obsolete assets as well as to ensure that the electricity distribution network is adequately equipped to meet the future load growth.

5.6.9 The total CAPEX requirement (Rs. crores) for the PTR Upgradation scheme for the next control period is provided in the table given below.

Table 62. CAPEX towards PT Upgradation (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
PTR Upgradation	11	-	11	12	12	47

d) Switchgear Replacement

5.6.10 The current 66 KV and 11 KV circuit breakers have exceeded their lifespan and are prone to failure, risking operational stability and safety. Modern switchgear will reduce interruptions, incorporate advanced safety features, and seamlessly integrate with expanded infrastructure, such as new feeders and components like the 20 MVA Power Transformer. This upgrade supports operational flexibility, efficiency, and the capacity to handle increased loads, ensuring substations to effectively manage new feeders and improve performance.

5.6.11 The total CAPEX requirement (Rs. crores) for the Switchgear Replacement scheme for the next control period is provided in the table given below:

Table 63. CAPEX towards Switchgear Replacement (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
Switchgear Replacement	11	7	5	2	3	28

e) 33 kV to 66 kV Conversion

5.6.12 The current 33 kV assets, being over 40 years old, are heavily overloaded and operate in a radial configuration, which limits their reliability and redundancy. Transitioning to a 66 kV network will enhance system capacity, thereby alleviating the overload issues and standardizing the entire distribution system to a 66/11 kV voltage level and enable ring formation, enhancing power reliability and continuity in case of a grid substation failure. Additionally, the increased capacity of the 66 kV system will accommodate anticipated future load growth, securing a robust and efficient power supply for the coming decades.

5.6.13 The total CAPEX requirement (Rs. crores) for 33 kV to 66 kV Conversion scheme for the next control period is provided in the table given below:

Table 64. CAPEX towards 33 KV to 66 KV conversion (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
33 kV to 66 kV Conversion	-	12	18	4	-	34

5.6.14 The detailed scheme wise justification of 66 KV and 33 KV schemes under this category is enclosed as **Annexure – 3**.

11 KV and LT Schemes

a) LT Distribution Box

5.6.15 The existing LT distribution system, primarily utilizing defunct and bypassed jungle fuse units, poses significant safety risks to staff and the public due to outdated and obsolete machinery. To address these issues, the installation of LT Air Circuit Breakers (ACBs) and Shunt Capacitors on pole-mounted transformers is essential. This upgrade provides enhanced protection, reliable switching, and isolation capabilities, facilitating preventive and breakdown maintenance while allowing the bifurcation of single LT into dual circuits. By replacing dangerous old equipment with modern technology, this initiative ensures compliance with safety regulations, improves operational efficiency, and supports a safer, more reliable electrical infrastructure across the various sectors in Chandigarh.

5.6.16 The total CAPEX requirement (Rs. crores) for LT Distribution Box scheme for the next control period is provided in the table given below:

Table 65. CAPEX towards LT Distribution Box (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
LT distribution box	-	2	0	-	-	11

b) Fencing of DTs

5.6.17 Pole-mounted transformers in densely populated areas pose safety risks due to potential accidental contact, unauthorized tampering, and vandalism, and contribute to electrical loss issues. Installing protective fencing is essential to address these concerns by restricting unauthorized access, thereby preventing injuries and safeguarding electrical infrastructure. This measure also minimizes energy losses, as fencing reduces the likelihood of tampering and vandalism that can compromise transformer efficiency. By maintaining optimal operating conditions, protective fencing ensures system reliability and aligns with loss reduction strategies

5.6.18 The total CAPEX requirement (Rs. crores) for the Fencing scheme for the next control period is provided in the table given below:

Table 66. CAPEX towards Fencing of DTs (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
Fencing of DTs	0.93	0.38	0.17	0.19	-	2

c) Ring Main Unit (RMU)

5.6.19 As mentioned in earlier sections, the existing overhead feeders in various sectors of Chandigarh are overloaded and frequently trip during peak summer months, compromising the reliability and stability of the power supply. To address this critical issue, the installation of 11 kV Ring Main Units (RMUs) is proposed. RMUs provide ring connectivity between feeders, enabling efficient load changeover, complaint handling, and elimination of entire feeder shutdowns during breakdowns and preventive maintenance. They are robust, maintenance-free electrical control switches that have replaced outdated GO switches, OCBs, and VCBs due to their simplicity and reliability. By implementing RMUs, the power system's efficiency and resilience will significantly enhance, ensuring a stable and continuous service delivery to meet the growing energy demands effectively.

5.6.20 The total CAPEX requirement (Rs. crores) for the RMU scheme for the next control period is provided in the table given below:

Table 67. CAPEX towards RMU (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
RMU	-	3	5	4	2	14

d) Replacement of theft-prone conductors

5.6.21 Losses due to theft and inefficiencies in densely populated and industrial areas. The replacement of these outdated and theft-prone conductors with armored cables, specifically 4cx300sqmm and 4cx95sqmm, addresses these issues by providing a secure and tamper-resistant solution. This transition not only reduces technical and non-technical losses by preventing unauthorized access and theft but also enhances the reliability and safety of the network. By ensuring proper insulation and reducing the risk of energy loss through illegal connections, the upgrade to armored cables supports a more efficient and sustainable energy distribution system, aligning with the loss reduction strategies of the DISCOM.

5.6.22 The total CAPEX requirement (Rs. crores) for the proposed scheme for the next control period is provided in the table given below:

Table 68. CAPEX towards Replacement of theft-prone conductors (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
Replacement of theft-prone conductors	15	9	6	0	0	31

e) Switchgear Replacement

5.6.23 The existing switchgear infrastructure in Chandigarh has reached the end of its operational lifespan, exhibiting significant degradation and frequent electrical faults. This situation compromises power supply reliability and poses considerable safety hazards. To address these critical issues, the complete replacement of outdated panel boards is proposed. Modern switchgear systems offer enhanced reliability, operational safety, and ease of maintenance. By eliminating safety risks associated with old equipment, such as Oil Circuit Breakers (OCBs), this strategic upgrade will ensure a more reliable and robust medium-voltage distribution system. Additionally, modern switchgear can handle higher capacity loads and provide better fault management, which is essential for meeting the growing energy demands while reducing the risk of service interruptions.

5.6.24 The total CAPEX requirement (Rs. crores) for the Switchgear replacement scheme for the next control period is provided in the table given below:

Table 69. CAPEX towards Switchgear Replacement (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
Switchgear Replacement	2	10	7	4	1	24

f) 11 KV Feeder Augmentation

5.6.25 The current 11 kV feeder infrastructure in Chandigarh is strained and frequent trips, especially during peak load periods in the summer, due to overloading and outdated components. This situation leads to compromised reliability and increased risk of service interruptions. To address these issues, the augmentation of existing 11 kV feeders is proposed, which involves upgrading undersized cables with higher capacity, modern XLPE cables and converting overhead lines to underground systems where necessary. This intervention will enhance the load-bearing capacity, reduce the susceptibility to faults, and improve the overall resilience and reliability of the power supply network, thereby ensuring uninterrupted service delivery to meet the growing energy demands effectively.

5.6.26 The total CAPEX requirement (Rs. crores) for 11 kV Feeder Augmentation scheme for the next control period is provided in the table given below:

Table 70. CAPEX towards 11 KV Feeder Augmentation (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
11 KV Feeder Augmentation	8	11	10	3	3	36

g) Transformer Upgradation

5.6.27 As submitted in the earlier paragraphs, there is a need to upgrade the transformers to provide for reliable supply of electricity.

5.6.28 The total CAPEX requirement (Rs. crores) for transformer upgradation for the next control period is provided in the table given below:

Table 71. CAPEX towards Transformer Upgradation (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
Transformer Upgradation	-	9	16	6	6	37

Cost-Benefit Analysis

5.6.29 The proposed schemes mainly involve upgradation and replacement of ageing and deteriorated assets. The benefits of the proposed schemes are primarily qualitative and operational in nature, including enhanced safety, improved system reliability, reduced frequency and probability of breakdowns, minimized downtime, elimination of overloading, minimization of

voltage fluctuations and reduced stress on network infrastructure. Thus, these improvements directly provide benefits to the consumer through increased consumer satisfaction while at the same time ensuring compliance with standards as prescribed by the Hon'ble Commission. Since the objective is to ensure network integrity, it is humbly submitted that a quantitative assessment of cost-benefit analysis is not feasible.

5.6.30 Furthermore, the long-term benefits of the proposed schemes include improved fault management, increased life of equipment, enhanced operational safety and sustained power quality. Additionally, the provision of ring main arrangements and transformer-level isolation through feeder pillars will streamline operations and maintenance activities. These improvements are expected to result in fewer service interruptions, improved consumer satisfaction and reduced emergency maintenance costs, thereby delivering substantial economic and operational benefits to the consumer.

5.6.31 It is also submitted that ensuring adherence to norms and Regulations on safety is also an important focus area for the Petitioner. The proposed works towards enhancing safety have been duly prioritized based on the insights on the inherited distribution network as gained from the preliminary survey. Thus, the benefits expected to accrue from these works include reduced probability of accidents, asset protection and improved safety standards.

5.6.32 Thus, the benefits of the proposed schemes significantly outweigh the cost of investment. Furthermore, it is also submitted that the proposed schemes are essential to maintain uninterrupted and stable power supply in the Union Territory.

5.6.33 The detailed scheme wise justification under this category is enclosed as **Annexure – 4**.

5.7. Safety

5.7.1 The existing power transformer infrastructure at crowded and vulnerable locations in Sector-43 and Sector-40, Chandigarh, faces significant safety risks due to unrestricted access and potential physical damage. Providing and fixing fencing around these transformers is crucial to enhance public safety by preventing unauthorized access and accidental contact, which can lead to electrical hazards and service disruptions. This strategic intervention not only protects the infrastructure from physical damage but also ensures the uninterrupted and safe operation of the power supply network, thereby addressing the critical safety concerns effectively.

5.7.2 Further, there is requirement of Fire system equipment, PPEs, earthing for poles and DTR which is required on immediate basis and accordingly, has been planned over the next 5 year plan.

5.7.3 Thus, the total CAPEX requirement (Rs. crores) for the Safety scheme for the next control period is provided in the table given below:

Table 72. CAPEX towards Safety (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
Safety	3	3	3	3	3	14

5.8. Overhaul of Metering Infrastructure

a) Metering Plan

5.8.1 During preliminary analysis, it was observed that around 25,000 meters were defective with a lack of effective inventory of meters in stores. Metering and protection for transformers at grid level also needs urgent attention.

5.8.2 Furthermore, energy audit reports were not available. It was also observed that meters/CTs are not installed on distribution transformers and consumer indexing is also not effectively mapped.

5.8.3 The AMR system was also not available with all HT, LTCT, single phase and three phase meters. Additionally, seals on meters (terminal cover and box) were not present at various locations even in the case of LTCT meters. Availability of meter testing equipment was also non-optimal.

5.8.4 CPDL is currently grappling with significant challenges stemming from its outdated metering infrastructure, which includes both CT-operated and Whole Current (WC) meters. These meters lack the capability to support electronic readings and fail to meet modern regulatory and statutory requirements, undermining CPDL's ability to accurately measure electricity usage, optimize energy management, and ensure precise billing.

5.8.5 Furthermore, the limitations of the existing metering infrastructure prevent CPDL from fully leveraging its Advanced Metering Infrastructure (AMI), which restricts the benefits of real-time data collection, remote monitoring, and integration with broader energy management systems.

5.8.6 Recognizing these shortcomings, CPDL plans to overhaul metering infrastructure and replace all existing meters with smart meters to ensure compliance with evolving energy regulations

5.8.7 The capital expenditure investment in smart meters over the next five years will empower CPDL to fully utilize its AMI infrastructure, integrating smart meter data with its Meter Data Acquisition System (MDAS) and SAP Billing engine.

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Consumer metering overhaul:

5.8.8 The existing metering infrastructure (takenover from EWEDC) consist of 7 to 8 different, non-standard types of meters primarily due to EWEDC asking consumers to procure meters themselves for last few years, leading to inconsistencies and inefficiencies in billing. Currently, CPDL employs static meters to replace defective or burnt meters. However, to enhance overall billing efficiency and ensure accuracy, it is imperative to replace all existing meters with smart meters.

5.8.9 Further, clause 6.1 and 6.6(a) of JERC Supply Code Regulations, 2018 and amendment thereof states as under:

> *"6.1. No connection shall be given without a meter and such meter shall be the smart pre-payment meter or pre-payment meter. Any exception to the smart meter or pre-payment meter shall have to be duly approved by the Commission. The Commission, while doing so, shall record proper justification for allowing the deviation from installation of the smart pre-payment meter or pre-payment meter.*
>
> .....
>
> *6.6(a) Time of Day Tariff (TOD) - The Time of Day tariff for Commercial and Industrial consumers having maximum demand more than 10 kW shall be made effective from a date not later than 1st April, 2025 and for other consumers except agricultural consumers, the Time of Day tariff shall be made effective not later than 1st April, 2025 and a Time of Day tariff shall be made effective immediately after installation of smart meters, for the consumers with smart meters.*
>
> *Provided that in case there is any delay in the installation of smart meters and implementation of TOD from 1st April, 2025, exception shall be sought from the Commission"*

5.8.10 In view of above, it becomes increasingly important for CPDL to plan capital expenditure for installation of smart pre-payment meters for new and existing consumers. For this purpose, CDPL has planned to under capital investment for Advanced Metering Infrastructure (AMI) including its IT infrastructure which will also help in improving billing accuracy and reduce losses from pilferage.

5.8.11 Further, it is planned that all single-phase meters will be replaced with static BLE Meters and all three phase meters of consumers comprising of Polyphase, LTCT, HT meters will be replaced with smart meters i.e. all HT & LTCT smart meters installation in next 2 years and all Polyphase whole current meter in subsequent 3 years. It is also proposed that all categories of connection towards Net meters will be installed with Smart Net meter.

DT metering overhaul:

5.8.12 The preliminary analysis revealed that meters/CTs are not installed on distribution transformers. Such absence of metering or inadequately monitored DTs make it challenging to identify areas

of high energy loss and potential overloads, leading to increased operational costs and reduced reliability of power supply in Chandigarh area.

5.8.13 It is also pertinent to mention that unavailability of energy meters or faulty meters in DTs hinders energy accounting. This limitation makes it impossible to accurately access the reduction in losses through augmentation/upgradation of existing DTs with new DTs.

5.8.14 Thus, it is planned to install 100% DT metering with smart meters in next 3 years. Implementing 100% smart metering on DTs addresses these issues by enabling precise energy accounting and real-time monitoring of transformer health. By collecting detailed data on voltage, current, and power factors, the system can identify transformers that are approaching overload conditions and facilitate timely preventive maintenance. Smart metering allows for the generation of technical loss reports, which help pinpoint high-loss areas, enabling targeted corrective actions to minimize energy wastage.

5.8.15 Moreover, the data collected from smart meters aids in strategic network planning by highlighting transformers operating near their capacity limits, suggesting where network upgrades or extensions are needed. This information not only helps in reducing losses in the low-voltage network but also supports long-term asset management and system reliability improvements.

Feeder metering overhaul:

5.8.16 Current feeder meters at 66/33/11 kV levels are partly functional, with numerous faulty meters, CTs, and PTs, leading to unidentified technical losses that hinder DISCOM's ability to optimize distribution, comply with CEA standards, and integrate with the National feeder Monitoring system (NFMS). Implementing 100% smart metering on all feeders will enable precise identification and monitoring of technical losses by providing accurate, real-time data on energy flow. This will facilitate targeted corrective actions, minimizing losses and optimizing energy distribution, ultimately reducing operational costs and improving supply reliability.

5.8.17 Thus, it is planned to install 100% feeder metering with smart meters in FY 2025-26. It is also pertinent to mention that unavailability of energy meters or faulty meters in feeders hinders energy accounting. This limitation makes it impossible to accurately access the reduction in losses through augmentation/upgradation of existing DTs with new DTs.

5.8.18 Along with the above-mentioned issues, the energy audit reports are not available despite receiving multiple directives from Hon'ble Commission. The relevant extract of the latest Tariff Order dated 25.07.2024 is reproduced as under:

"The Commission has noted with serious concern that the Petitioner is yet to submit the Energy Audit Reports for previous years despite repeated directions. The Commission

directs the Petitioner to submit the consultant's report as soon as its prepared and meanwhile submit quarterly report of the action plan within one month of issuance of this Order and complete the Annual Energy Audit of the UT on priority."

5.8.19 In terms of the above clause, it becomes imperative to install 100% metering in Distribution Transformers (DT) and Feeders to have proper energy accounting.

b) Statutory Requirement – New Connection and Meter Replacement

New Services / Load Augmentation

5.8.20 As per Section 43 of the Electricity Act, 2003, CPDL, being a Distribution Licensee, has the primary obligation to supply electricity to the intending consumer on receipt of application and payment of estimates as per rates approved in Tariff Order by the Hon'ble Commission. The expenditure is envisaged to fulfill the statutory mandate including requirement of extending the network and installation of new transformers.

5.8.21 The Capex is proposed for providing new electricity connection including the cost of material such as cables, meters & transformers required to effect electricity supply to applicants/ consumers.

Replacement of Burnt/Faulty/Defective meters:

5.8.22 It is also proposed to replace existing meters due to meters being Burnt/defective/stolen in accordance with JERC Supply Code 2018 and its amendment thereof.

5.8.23 Thus, the total CAPEX requirement (Rs. Crore) for the overhaul of metering infrastructure scheme for the next control period is provided in the table given below:

Table 73. CAPEX towards Metering Infrastructure (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
New Connection including net metering cases	15	13	7	7	6	47
Replacement under Normal Business	4	0	2	3	4	13
DT Metering	1	10	7	0	0	19
Feeder Metering	1	0.01	0.02	0.02	0.01	1
PQ Meters	-	1	-	1	-	1
AMI	15	62	35	4	4	120
Test Bench & Civil	2	0.2	0.4	0.1	0.1	3
Total	**38**	**86**	**51**	**15**	**14**	**205**

5.8.24 The detailed scheme under above category is enclosed as **Annexure – 5** for kind perusal of the Hon'ble Commission.

Cost-Benefit Analysis

5.8.25 The Petitioner submits that a conventional financial cost benefit analysis is not applicable as the proposed scheme is proposed to enable improvement of operational efficiency, regulatory compliance and enhanced service delivery. It is also submitted that while direct monetary benefits may not be immediately quantified, the scheme is envisaged togenerate significant intangible benefits such as improved data accuracy, accurate energy audit, enhanced system reliability and improved customer satisfaction.

5.9. Technology Adoption

5.9.1 CPDL is currently facing significant challenges related to technology adoption, primarily due to outdated infrastructure and limited digital integration across its operations. The sole reliance on manual processes and lack of real-time data further delay fault detection and resolution. The existing electricity distribution system lacks real-time monitoring and predictive maintenance. The lack of Information Technology (IT) systems in daily business operations further hinders the uninterrupted supply of power to consumer of CPDL.

5.9.2 The current scheme focusses on upgrading SCADA systems for real-time monitoring, integrating predictive analytics and GIS for proactive maintenance, boosting customer satisfaction through enhanced interaction, and deploying IT measures in day-to-day business operations

a) Consumer Experience Transformation

5.9.3 The preliminary survey following the takeover of operations revealed various challenges as regards provision of effective consumer services to enhance consumer experience. It was revealed that only 20% of applications for new connections are processed through online portals.

5.9.4 Furthermore, consumers were not provided with facility of 24x7 customer call centre for resolution of consumer grievances. While a round-the-clock Citizen Facilitation Centre (CFC) was operational, consumers could not connect to the same. Thus, CPDL faces challenges such as inefficient complaint resolution and limited consumer engagement, which impact service delivery.

5.9.5 To improve consumer experience, CPDL is planning to implement the following:

(i) AI driven advanced Customer Relationship Management (CRM) system to integrate all consumer communication channels- including phones, e-mail, chart and social media – into a unified CRM system, providing a seamless and consistent service experience.

(ii) A centralized call center to streamline operations, providing a dedicated point of contact for inquiries and complaints. This initiative aims to enhance the efficiency of complaint resolution and reduce response times, ensuring consistent service delivery

(iii) A WhatsApp chatbot to modernize CPDL's communication strategy by offering functionalities like complaint registration and real-time updates, catering to the growing demand for digital engagement

(iv) Digitalization of complaint centers to improve the tracking and management of consumer issues, facilitating timely resolutions and enabling data driven insights for operational improvements

(v) Consumer portal/ mobile application to personalized customer interactions, allowing consumers to manage their accounts and access personalized recommendations.

5.9.6 These digital platforms are designed to enhance accessibility, responsiveness, and consumer engagement, positioning CPDL as a utility that prioritizes customer needs and embraces innovation

5.9.7 The total CAPEX requirement (Rs. crores) for Consumer Experience Transformation scheme for the next control period is provided in the table given below:

Table 74. CAPEX towards Consumer Experience Transformation (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
Consumer Experience Transformation	1	2	2	1	1	7

b) IT enablement in Internal Processes

5.9.8 Currently, the majority of internal business processes at the DISCOM depend on paperwork. Integration of technology and automation is limited. Complaint records were handled manually. The complaint centers were not digitalized. The outage management system, material management system, etc., which are critical for running day-to-day business operations were missing. The transactional data was manually maintained at each division. There was no tracking system for managing resources at DISCOM. The workforce management system was absent. Since no technological intervention was in place, the cyber security measures were absent too. Thus, the business processes were inefficient. Many modern utilities across the globe are increasingly welcoming digitization and automation of internal processes.

5.9.9 Since CPDL is aiming to enhance its overall service delivery and position itself as a market leader and a state- of-the-art distribution utility. it is embedding digitization and automation across its internal organizational processes. The following initiatives are planned by CPDL

(i) Implement several major applications to manage various operations, including SAP ERP and Microsoft applications to optimize business processes, financial management, and data analytics. SAP ISU for Consumer Metering Billing and Collection, GE Small World as Geographic Information System, and the Meter Data Acquisition System.

(ii) Invest in advanced data analytics, AI and dynamic dashboards to support strategic business decisions, thereby allowing the Discom to process vast amounts of data in real-time, uncover insights, predict trends and make informed, data-driven decisions.

(iii) Centralized platform to streamline and enhance the management of specialized field teams, which are responsible for critical operations such as Meter Reading, Installation and Commissioning, Repair and Maintenance, Enforcement, and Recovery.

(iv) Shift to digital documentation and a transition to a paperless office environment to streamline workflows, enhance data security, and promote more efficient information sharing across teams, aligning the Discom's operational practices with environmentally responsible standards.

(v) Implement cutting-edge technologies such as AR, AI/ML, Generative AI, Robotic Process Automation and Blockchain for future growth

(vi) Set up a reliable, high-speed network across offices and operational sites, support digital workflow by providing modern desktop computers and laptops to enhance employee efficiency

(vii) Manage database through acquisition of Oracle Database and SQL Database licenses to enable secure, scalable, and high-performance data management for business-critical applications

(viii) Automates workforce management and ensure compliance and efficiency, implement VTS to enhance fleet management by providing real-time tracking and monitoring of company vehicles. These systems contribute to improved productivity, reduced operational costs, and enhanced service delivery

(ix) Establish a state-of-the-art Data Center and Disaster Recovery Centre to support the integration of advanced technologies like IoT devices, smart meters, and automated systems to enable real-time data processing and optimize power distribution networks.

(x) Provide secure, high performance and future ready IT infrastructure across CPDL.

5.9.10 By investing in these mission-critical software solutions, CPDL aims to build a robust, secure, and future-ready IT ecosystem, ensuring business continuity, operational excellence, and enhanced service delivery.

5.9.11 The total CAPEX requirement (Rs. crores) for IT Enablement in Internal Processes scheme for the next control period is provided in the table given below:

Table 75. CAPEX towards IT Enablement in Internal Processes scheme (Rs. Cr.)

SN.	Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
1	Technology Implementation, Upgradation and Enhancements	1	2	5	2	2	13
2	Digital Documentation and transition to Paperless Office for Sustainability	0	0	1	0	0	2
3	Intervention Using Cutting-Edge Technologies		3	4	4	4	13
4	Data Information and Cyber Security		3	6	5	4	17
5	IT Data Centre and Disaster Recovery Centre Establishment	2	5	5	2	0	14
6	End User, Network, Devices and Peripherals	2	2	1	1	1	7
7	Purchase of Software Licences	5	4	3	3	3	17
8	IT Infra Setup at New Offices in Line with Civil Projects	1	1	5	2	-	9
9	Technology Implementation, Upgradation and Enhancements	1	2	5	2	2	13
10	Digital Documentation and transition to Paperless Office for Sustainability	0	0	1	0	0	2
11	**Total**	**10**	**16**	**18**	**13**	**10**	**66**

c) Cyber Security

5.9.12 As CPDL is focusing on modernizing its infrastructure and integrate advanced technologies, the need for robust cybersecurity measures becomes paramount. With the deployment of smart grids, Advanced Metering Infrastructure (AMI), and other digital solutions, CPDL faces heightened risks of cyber threats that could compromise data integrity, operational continuity, and consumer privacy. The interconnection of digital systems enhances operational efficiency but simultaneously increases vulnerabilities to cyberattacks, which can disrupt power supply and lead to significant financial and reputational damages. Implementing comprehensive cybersecurity strategies, including real-time monitoring, threat detection, and incident response

protocols, is essential to safeguard the utility's digital assets and ensure the secure, reliable delivery of electricity, thus maintaining consumer trust and regulatory compliance.

5.9.13 To fortify its cybersecurity framework and protect critical infrastructure, CPDL is planning to implement a range of advanced security solutions. These include Security Information and Event Management (SIEM), Security Operations Centre (SOC), Privileged Identity Management (PIM/PAM), Extended Detection and Response (XDR), Mobile Device Management (MDM), and Network Behaviour Analytics (NBA).

5.9.14 These initiatives aim to bolster identity management, enable real-time threat detection, and automate incident responses, thereby preventing unauthorized access and enhancing consumer trust in the utility's security measures. Securing data on mobile devices and network layers will also allow both internal and external users to confidently utilize mobile applications, reducing the risk of data theft or loss.

5.9.15 Once the SIEM and SOC are fully operational, CPDL is planning to further enhance its capabilities by integrating Security Orchestration, Automation, and Response (SOAR) into the SIEM platform, streamlining and reinforcing its cybersecurity infrastructure.

5.9.16 The total CAPEX requirement (Rs. crores) for Cyber Security scheme for the next control period is provided in the table given below:

Table 76. CAPEX towards IT Enablement in Internal Processes scheme (Rs. Cr.)

Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
Scheme to strengthen cyber security and safeguard critical infrastructure	-	3	6	5	4	17

d) Automating Field Operations

5.9.17 CPDL currently relies on manual inspections to identify hotspots in the distribution network, which are time-consuming and prone to errors, leading to reactive maintenance and increased risk of outages. By procuring drones equipped with thermal sensor cameras, CPDL can rapidly and accurately detect hotspots, enabling a proactive maintenance approach. This technology enhances network reliability by addressing potential faults before they cause disruption.

5.9.18 Additionally, the existing CCTV systems at CPDL may not provide adequate coverage or clarity needed for effective monitoring and security of critical infrastructure. This creates vulnerabilities of unauthorized access and potential security breaches. Upgrading to advanced CCTV systems

improves monitoring capabilities, offering comprehensive coverage and enhanced security measures.

5.9.19 Moreover, vegetation encroachment on power lines is currently managed manually at CPDL, which is labor-intensive and reactive, increasing the risk of outages. Drone-based LiDAR technology provides precise data on vegetation encroachment, allowing for targeted and efficient management. This proactive approach minimizes outage risks caused by overgrown vegetation, enhancing network reliability and safety

5.9.20 Under the National Smart Grid Mission, the project for SCADA in Chandigarh was awarded in October 2018 and commissioned in August 2022. The SCADA project, implemented in Division No. 2, integrates 6 substations including 61 feeders. It should be noted that all feeders are not covered in the existing SCADA project, which limits the monitoring capability of the DISCOM over its distribution network. To address this, CPDL plans to upgrade the SCADA system. These enhancements will bolster real-time telemetry and substation monitoring, enabling faster fault detection and resolution, efficient load management, and improved safety.

5.9.21 CPDL is also planning to integrate DERMS and implement ADMS. DERMS will facilitate seamless incorporation of renewable energy sources, supporting sustainability goals and empowering 25,000 prosumers. The ADMS will provide advanced features like FLISR and Volt-Var Optimization, ensuring rapid fault resolution and optimal voltage regulation, thereby minimizing downtime and significantly improving service reliability. These initiatives collectively enhance network resilience, operational efficiency, and strategic planning capabilities, aligning with global sustainability objectives and ensuring a robust power distribution system.

5.9.22 CPDL's current planning processes are hindered by data inaccuracies and limited analytical capabilities. To make informed and strategic decisions, CPDL is planning to implement a comprehensive Network Planning Tool capable of precise load flow analysis and optimal network expansion. This tool will enable effective management of growth and ensure a balanced, efficient power distribution system, addressing existing planning challenges and future growth needs.

5.9.23 Currently, CPDL is also facing challenges with inefficient asset management and spatial planning due to fragmented data systems and limited visualization capabilities. CPDL is planning to implement Geographic Information Systems (GIS) to address these issues by providing a unified platform that enhances data visualization and integration. GIS enables precise analysis of infrastructure layouts and service areas, facilitating efficient decision-making and improving resource allocation.

5.9.24 To address these gaps, CPDL plans to upgrade the existing SCADA system with advanced functionalities, including Management Information Systems (MIS), Web applications, reporting

tools, and analytics. The plan includes implementing Substation Automation Systems (SAS) across all 66 kV and 33 kV Substations. These upgrades will align with proposed switchgear replacements and new installations at Grid Substations (GSS), enhancing real-time telemetry, historical data logging, outage reports, and Substation monitoring. This will enable faster fault detection and resolution, better load management, and improved safety.

5.9.25 To further enhance network visibility, real-time and historical data availability, and to improve the operational efficiency and reliability, CPDL is also planning the implementation of Advanced Distribution Management System (ADMS) and integration of network model with GIS. This will involve automating 11 kV RMUs and installing Fault Passage Indicators (FPIs). The ADMS will offer sophisticated capabilities such as Network Connectivity Analysis, State Estimation, Fault Location, Isolation and Service Restoration (FLISR), and Volt-Var Optimization. These functionalities will ensure quick fault resolution and optimal voltage regulation, significantly reducing downtime and improving reliability.

5.9.26 In line with its sustainability goals, CPDL also plans to implement a Distributed Energy Resource Management System (DERMS) to facilitate the seamless integration of renewable energy sources and support a network of 25,000 prosumers.

5.9.27 CPDL's current network planning processes are limited by data inaccuracies and insufficient analytical tools. To enable informed, strategic decision-making, CPDL will deploy a comprehensive Network Planning Tool capable of conducting accurate load flow analyses and optimizing network expansion. This tool will support efficient growth management and ensure a balanced power distribution system.

5.9.28 Additionally, the existing CCTV infrastructure lacks the coverage and resolution necessary for effective monitoring and security of critical assets, exposing the network to risks of unauthorized access and potential breaches. CPDL intends to upgrade to advanced CCTV systems for improved surveillance and security. Plans also include implementing a centralized IP-PBX communication system and attendance systems across all offices to enhance operational efficiency.

5.9.29 Currently, CPDL faces challenges in asset management and spatial planning due to fragmented data systems and poor visualization. To address this, the implementation of a Geographic Information System (GIS) is planned. GIS will provide an integrated platform for enhanced data visualization and analysis of infrastructure and service areas, improving resource allocation and strategic decision-making.

5.9.30 Moreover, preventive maintenance tasks such as electrical network inspections, theft detection and monitoring vegetation encroachment are still handled manually, making them labor-intensive and reactive. CPDL plans to adopt drone-based site survey, and feeder surveys using

LiDAR technology, which will offer accurate, real-time data to detect abnormalities, theft, safety hazards, and vegetation overgrowth. This proactive approach will significantly reduce outage risks and improve the overall reliability and safety of the network.

5.9.31 The summarized total CAPEX requirement (Rs. crores) for Automating Field Operations scheme for the next control period is provided in the table given below:

Table 77. CAPEX towards Automating Field Operations (Rs. Cr.)

SN.	Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Grand Total
1	AUTOMATION-SAS/SCADA/ FANA/Communication Infra	3	11	2	3	5	25
2	Business Continuity of GIS and associated Processes	6	0	1	1	0	8
3	**Total**	**8**	**11**	**3**	**4**	**6**	**33**

Cost-Benefit Analysis

5.9.32 As submitted in the earlier paragraphs, technology adoption in the distribution and retail supply business in the Union Territory is at the nascent stage. Thus, the Petitioner intends to rapidly transform the state of technology adoption in the Discom by suitably leveraging various state-of-the-art initiatives, which have been proposed in the preceding paragraphs.

5.9.33 As regards the benefits envisaged from the proposed scheme, the limited deployment of IT/OT technologies in the Discom itself reveals an urgent need to undertake corrective measures. Moreover, benefits accruing from the proposed scheme cannot be quantified, the scheme is expected to enhance reliability and operational efficiency, through the following:

- **Faster Outage Management**: FLISR and OMS integration improves fault detection and service restoration without field crew, enhancing service uptime.
- **Real-Time Decision Making**: Enhanced SCADA, GIS, and analytics enable faster, data-driven responses to grid events.
- **Streamlined Operations**: Centralized monitoring through unmanned substations and communication upgrades reduces operational complexity.
- **Proactive Customer Engagement**: OMS, CRM, IVR, and GIS-based systems allow more transparent and responsive service.
- **Reliability & Trust**: Improved communication network uptime, automation in substations and RMUs, power quality monitoring (IEEE 519, EN50160), and faster service restoration elevate reliability, customer satisfaction and trust.

- **Improved Employee Safety**: Automation in substations reduce human exposure to hazardous environments.
- **Cyber Resilience**: Integration of OT visibility tools and legacy system replacement aligns with national cybersecurity protocols, enhancing digital safety.
- **Physical Security Assurance**: CCTV surveillance ensures infrastructure integrity and deters unauthorized access.
- **Support for Energy Transition**: Integration of RE sources, DERs, and energy efficiency programs helps accelerate India's decarbonization roadmap.
- **Scalability for Future Demands**: Infrastructure investments (e.g., OFC, BMS, automation) ensures company is prepared for growth, electrification, and digital grid expansion.
- **Improved Asset Planning**: Geo-Spatial analytics and upgraded data systems improve network expansion and investment decisions.
- **Integrated System Thinking**: Combining SCADA, GIS, OMS, and analytics supports a holistic, coordinated approach to grid management.

5.9.34 The detailed proposal for the scheme is enclosed at **Annexure-6** for the perusal of the Hon'ble Commission.

5.10. Future-ready Infrastructure

a) Office Infrastructure

5.10.1 The current existing infrastructure is old and needs modernization to provide a hygienic, well-ventilated and spacious work environment. These office locations are touch base points between end consumers and the utility. Hence, the focus needs to be on aesthetics as well as the safety of each stakeholder. To ensure the above, CPDL has planned to carry out civil infrastructure works for the designated offices in a phased manner. It therefore becomes necessary to carry out major renovation of buildings. The works have been categorized into the following categories.

(i) Admin Civil works: New construction/ Reconstruction/ Major Renovation/ Retrofitting of all non-substation, non-grid buildings

(ii) 11 kV Substation civil works: Major renovation/retrofitting works related to 11 kV substations.

(iii) EHV grid civil works: New construction in existing grids / Major renovation/ Retrofitting works related to EHV grids substations.

(iv) Rainwater harvesting for CPDL offices

(v) Renovation work of CPDL office/substation Buildings

5.10.2 With technology implementation in place, re-skilling of existing workforce becomes necessary for the employees to provide seamless services to consumers. Proper training needs to be given. Understanding the need, CPDL is establishing a Skill Development Center and Simulation Lab to address the need for continuous workforce development. These facilities provide targeted training and practical experience with new technologies, equipping employees with the skills necessary to operate in a modernized utility environment. This investment ensures CPDL's workforce is adaptable, skilled, and prepared to meet the evolving demands of the energy sector

b) Tools, Tackles and Vehicles

5.10.3 Currently, CPDL faces several challenges due to the absence of essential testing and measuring equipment.

5.10.4 The lack of cable fault locating equipment for pinpointing underground cable faults across its network, including voltage levels of 66 kV, 33 kV, 11 kV, and 1.1 kV (LT cables), results in dependency on external vendors for fault detection, causing significant delays in fault restoration and service resumption

5.10.5 Additionally, CPDL does not possess any Partial Discharge (PD) cameras or thermal imaging cameras, which are critical for condition monitoring and identifying fault-prone areas before actual faults occur. The absence of Relay Test Kits hampers the ability to assess the health and functionality of various relays and protection systems.

5.10.6 Furthermore, CPDL lacks equipment for High Voltage Direct Current (HVDC) testing, Transformer Turns Ratio (TTR) meters, Contact Resistance Measurement (CRM) kits, Circuit Breaker (CB) Timer Test Kits, and Parts Per Million (PPM) kits for moisture content testing in transformer oil, all of which are vital for ensuring the reliability and safety of the electrical network.

5.10.7 To address these issues and enhance the reliability of the power distribution network, CPDL plans to invest in acquiring essential testing equipment, tools, and tackles. This initiative aims to reduce downtime during breakdowns by enabling rapid fault identification and restoration, thus improving equipment uptime.

5.10.8 The procurement of cable fault locating equipment, PD cameras, and thermal imaging cameras will facilitate effective condition monitoring, allowing for preventive maintenance and reducing the risk of unplanned feeder breakdowns. Relay Test Kits will enable in-house testing of protection systems, ensuring timely maintenance and system reliability. HVDC testing equipment, TTR meters, CRM kits, CB Timer Test Kits, and PPM kits will strengthen CPDL's maintenance and testing capabilities, ensuring the long-term reliability and safety of the network.

5.10.9 The availability of proper tools and testing equipment will lead to systematic and efficient maintenance practices, reducing the possibility of accidents and extending the life of critical assets such as transformers, switchgear, and cables.

5.10.10 Further, the Petitioner is required to provide vehicles to its officers/ staff for various official work including visiting Substations, transporting heavy materials etc., shift-based duties in call centre, control room etc. and inter office movement to provide 24X7 reliable power supply in its licensed area and many other office related assignments including attending meetings/ court proceedings/ inspection of materials / vendor-verifications etc. in NCR and nearby States. The provision of vehicles not only ensures efficient and prompt services in economical manner but also necessary to ensure safety of its employees being working even in the odd hours / nighttime.

5.10.11 In addition to above, the CEA, through its various Regulations has established minimum standards for erection of distribution network by distribution companies. In line with these Regulations, vehicles are essential for the smooth movement of the Company's officials to efficiently provide services to consumers across the licensed area, which spans over 116 square km.

5.10.12 The total CAPEX requirement (Rs. crores) for Future-ready Infrastructure scheme for the next control period is provided in the table given below:

Table 78: CAPEX towards Future ready infrastructure (Rs. Cr.)

SN.	Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30	Grand Total
a)	Office Infrastructure	13	37	32	15	5	102
1	Construction of Store & office furnishing at Sector 52	1	-	-	-	-	1
2	Interior furnishing works of EHV Office at Kishangarh	1	-	-	-	-	1
3	Interior furnishing works of Division Office at Industrial Area Phase 1	0.2	-	-	-	-	0.2

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SN.	Particulars	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30	Grand Total
4	Office setup for Metering LAB at IA Phase-2	1	-	-	-	-	1
5	Skill Development Centre at IA Phase-2	-	2	2	-	-	4
6	Construction of Corporate office at Sector 17	-	15	15	-	-	30
7	Construction of Customer Care Office	-	-	5	5	-	10
8	Revamping of GSS & Indoor Substations	5	10	5	5	5	30
9	Misc. office setup & revamping	5	10	5	5	-	25
b)	Tools, tackles, and vehicles	10	5	2	2	2	21
1	Tools and Tackles	9	3	1	1	1	15
2	Vehicles	1	2	1	1	1	6
	Total	23	42	34	17	7	123

Cost-Benefit Analysis

5.10.13 The Petitioner submits that as the proposed scheme focusses on creating future-ready infrastructure to enable the Discom to meet the challenges of the future, the benefits of the proposed scheme cannot be quantified. However, the proposed scheme would enable the Discom to be equipped with the necessary infrastructure to provide best-in-class services to its consumers.

5.10.14 Furthermore, the Petitioner, through the proposed Skill Development Centre, intends to equip its staff with the necessary training to enhance technical expertise. Additionally, procurement of testing and diagnostic tools will enable early fault detection, reduce unplanned outages and enhance predictive maintenance practices, leading to reduced downtime and improved asset life. Enhanced operational efficiency and improved safety of field personnel will further contribute to better system reliability and customer satisfaction.

5.11. Details of Spillover Schemes

5.10.15 The Petitioner submits that the Tariff Regulations 2024 stipulate as under:

"8.5 The Business Plan filed by Distribution Licensee shall inter-alia contain:

b)

...

(ii) The capital investment plan shall show separately, ***on-going projects that will spill into each year of the control period*** *and new projects (along with justification) that will commence but may be completed within or beyond the control period.*

8.6 Capital Investment Plan/Additional Capital Investment Plan

a) The Capital Investment Plan/Additional Capital Investment Plan to be submitted as part of Business Plan shall include details of New Projects/ Renovation & Modernization of Existing Projects planned during the Control Period, purpose of investment, capital structure, implementation schedule, quarter-wise capital expenditure and capitalization schedule, financing plan, cost-benefit analysis, improvement in operational efficiency envisaged in each year of the Control Period owing to proposed investment ***and such details for ongoing projects that will spill over into the Control Period along with justification****;*

Provided that the Capital Investment Plan shall be submitted on scheme wise basis."

[Emphasis added]

5.10.16 It is humbly reiterated that following the notification of the Transfer Scheme, the Petitioner has taken over the distribution and retail supply business of EWEDC in the Union Territory of Chandigarh on 01.02.2025. Further, in accordance with the Transfer Scheme, 2025, the Opening Balance Sheet as of 01.02.2025, shall be finalized within a twelve-month period from the Transfer Date, as outlined in Part D, Section 4 of the Transfer Scheme and is reproduced below for your kind reference.

"Part D. Transfer of Electricity Distribution Business

...

4. The opening balance sheet of the Company along with details in the Schedules to the Balance Sheet shall be drawn as on the Transfer Date giving effect to the provisions contained in this Scheme and the finalized Opening Balance sheet of the Company shall be notified by the Administration separately within twelve (12) months of notification of this Scheme."

5.10.17 In the absence of a finalized Opening Balance Sheet, CPDL has provisionally adopted figures derived from provisional figures of FY 2023-24 and FY 2024-25, obtained by the Petitioner on best efforts basis, as stated earlier.

5.10.18 To determine the details of the spillover schemes, it is submitted that as per the provisional details of FY 2023-24, there is Capital-Works-in-Progress (CWIP) of Rs. 92.80 Crore as on 31.03.2024. Based on the same and the provisional information for FY 2024-25, the Petitioner estimates closing CWIP of Rs. 90.62 Crore for FY 2024-25.

5.10.19 Petitioner is in the process of reconciling the opening CWIP of Rs. 90.62 Crore for FY 2025-26 with scheme-wise details available with the field offices. Subject to final reconciliation of the opening CWIP, the Petitioner has considered the estimated figure of Rs. 90.62 Crore as closing CWIP for FY 2024-25. Further, for the purpose of projections for the Control Period from FY 2025-26 to FY 2029-30, the Petitioner has considered the following capitalisation and accordingly derived the closing CWIP:

Table 79. Capital-Works-in-Progress during MYT Control Period in (Rs Cr.)

SN.	Particulars	2024-25^	2025-26	2026-27	2027-28	2028-29	2029-30
1	Opening CWIP	92.80*	90.62	119.16	147.38	144.99	75.22
2	Capital Expenditure	8.83	174.19	301.93	266.88	126.91	86.28
3	Capitalization	6.08	145.64	273.71	269.27	196.68	125.45
4	Closing CWIP	90.62**	119.16	147.38	144.99	75.22	36.06

**Based on closing CWIP of EWEDC for FY 2023-24 as per provisional information;*
^Provisional figures of capex and capitalization for FY 2024-25;
***Including retirals of schemes worth Rs 4.93 Cr*

6. Capital Structure

6.1. Regulatory Provision

6.1.1. Regulation 27 of the Tariff Regulations, 2024 stipulates as under:

> ***"27 Debt to Equity Ratio***
>
> *27.1 In case of Existing Projects, debt to equity ratio allowed by the Commission for determination of tariff for the period ending March 31, 2025 shall be considered:*
>
> *Provided that in the case of a generating station or a transmission system, including a communication system or a distribution system which has completed its useful life as on 01.04.2025 or is completing its useful life during the FY 2025-30 tariff period, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff computation;*
>
> *Provided also that in case of retirement or replacement or De-capitalisation of the assets, the equity capital approved as mentioned above, shall be reduced to the extent of 30% (or actual equity component based on documentary evidence, if it is lower than 30%) of the original cost of such assets:*
>
> *Provided further that in case of retirement or replacement or De-capitalisation of the assets, the debt capital approved as mentioned above, shall be reduced to the extent of outstanding debt component based on documentary evidence, or the normative loan component, as the case may be, of the original cost of such assets.*
>
> *27.2 For New Projects, the debt-equity ratio as on the Date of Commercial Operation shall be 70:30 of the amount of capital cost approved by the Commission under Regulation 23, after prudence check for determination of tariff:*
>
> *Provided that where equity actually deployed is less than 30% of the capital cost of the capitalised asset, the actual equity shall be considered for determination of tariff:*
>
> *Provided also that if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as a normative loan for the Licensee for determination of tariff:*
>
> *Provided also that the Licensee shall submit documentary evidence for the actual deployment of equity and explain the source of funds for the equity:*
>
> *Provided also that the repayment of the loan for each year of the control period shall be deemed to be equal to the depreciation allowed for the respective years:*
>
> *Provided also that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:*
>
> *Provided also that any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt:equity ratio:*
>
> *Provided also that assets funded by consumer contribution, capital subsidies/grants shall not form part of the capital base. Actual equity infused as per book value shall be considered as per actual and shall be used for computation in this Regulations;*
>
> *Provided further that the premium, if any, raised by the Licensee while issuing share capital and investment of internal resources created out of its free reserves, for the funding of the scheme, shall be reckoned as paid up capital for the purpose of computing*

return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the transmission system or the distribution system, and are within the ceiling of 30% of capital cost approved by the Commission.

27.3 Any expenditure incurred or projected to be incurred on or after April 1, 2025, as may be admitted by the Commission, as additional capital expenditure for determination of tariff, and renovation and modernization expenditure for life extension shall be serviced in the manner specified in these Regulations.

27.4 The generating company or the transmission licensee or the distribution licensee, as the case may be, shall submit the resolution of the Board of the company or the approval of the competent authority in other cases regarding the infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system Including communication system or the distribution system, as the case may be.

27.5 In the case of the generating station or transmission system, including communication system or the distribution system declared under commercial operation prior to 01.04.2025, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.03.2025, the Commission shall approve the debt: equity ratio in accordance with clause 27.2 of this Regulation"

6.2. Capital Structure for the MYT Control Period

6.2.1. The Petitioner is proposing funding of capitalization through consumer contribution and balance through a mix of debt and equity as per the abovementioned provisions of the Regulations.

6.2.2. Accordingly, the Petitioner submits the following capital structure for its proposed capital expenditure for the MYT control period

Table 80. Capital Structure of proposed capital investment schemes for MYT Control Period (in Rs Cr.)

SN.	Particulars	2025-26	2026-27	2027-28	2028-29	2029-30	Total
1	Capital expenditure	174	302	267	127	86	956
2	Capitalization	146	274	269	197	125	1,011
3	Consumer Contribution	4	8	8	6	4	30
4	Debt (70%)	99	186	183	134	85	686
5	Equity (30%)	42	80	78	57	37	294

7. Reliability Indices

7.1. Regulatory Provision

7.1.1. Regulation 8.5(f) of the Tariff Regulations, 2024 provides the basis for reliability indices, which is reproduced as follows:

> ***"8.5. The Business Plan filed by Distribution Licensee shall inter-alia contain:***
>
> ....
>
> *f). Performance Targets items such as distribution loss,* ***reliability indexes (SAIFI, SAID & MAIFI)****, transformer failure rate and any other parameter for quality of supply for each Year of the Control Period consistent with the Capital Investment Plan proposed by the Distribution Licensee;"*

7.2. Trajectory for Reliability Indices

7.2.1. The Hon'ble Commission, by its Order dated 11.07.2022 had approved the Business Plan submitted by EWEDC for the Control Period from FY 2022-23 to FY 2024-25. The relevant extract of the Order is reproduced below:

> ***"Commission's Analysis***
>
> ***Based on the limited data submitted by the Petitioner****, the Commission approves the SAFI, SAIDI and MAIFI trajectory. However, the same shall be reviewed annually in line with the JERC (Standard of Performance for Distribution Licensees) Regulations, 2015."*
>
> ***[Emphasis added]***

7.2.2. Therefore, even the Hon'ble Commission is cognizant of the fact that there was limited data available with EWEDC based on which the Hon'ble Commission approved the trajectory for the reliability indices.

7.2.3. Hon'ble Commission has specified the mechanism for computing the various indices such as System Average Interruption Frequency Index (SAIFI), System Average Interruption Duration Index (SAIDI), Momentary Average Interruption Frequency Index (MAIFI), and Customer Average Interruption Duration Index (CAIDI) under the JERC (Standards of Performance for Distribution Licensees) Regulations, 2015 as amended by the JERC (Standards of Performance for Distribution Licensees) (First Amendment) Regulations, 2024 ***("Supply Code")***by . Clause 15b and 17 of Schedule II of the Supply Code specifies as under::

> *"15b there shall be a uniform system of recording and reporting of distribution system reliability performance. the same reliability indices shall be imposed on all licensees, the performance target levels set by the Commission shall be unique to each licensee to be based initially on the historical performance of licensee and the same shall be set in the Business Plan.*

...

The licensee shall compute value of the distribution reliability indices viz. SAIFI, SAIDI, MAIFI, CAIFI and CAIDI separately for the Urban Area, Rural area as per the formula and methodology as specified at Sl. No. 18 in this Schedule.

***The distribution licensee shall put in place a mechanism, preferably with automated tools to the extent possible for monitoring and restoring outages.**"*

7.2.4. The Petitioner humbly reiterates that it has taken over operations in the Union Territory of Chandigarh on 01.02.2025. Currently, the process of data collection at CPDL is handled manually by the Division Offices, following traditional practices established by the EWEDC and the automated mechanism is not in place. With the transition of the distribution business to CPDL, this manual method of record-keeping has highlighted potential issues, such as inaccuracies introduced by human error and the limitations of legacy processes. On account of these issues and in line with the requirement under the Supply Code, there is aneed for modernization to ensure precision and efficiency in data management.

7.2.5. CPDL is in the process of developing an automated system designed to log power interruptions and their durations across all feeders. This automation will significantly enhance the ability to accurately track and report key performance metrics, such as SAIFI, SAIDI, MAIFI, and CAIDI.

7.2.6. The Petitioner is focused on structuring and systematizing the categorization and logging of consumer complaints. By doing so, the aim is to streamline the complaint management process and improve responsiveness to consumer needs, ultimately enhancing customer satisfaction.

7.2.7. Once the automated system is fully implemented, Petitioner will be able to provide data that is not only more precise and verifiable but also more accessible, eliminating the need for manual intervention and thereby reducing the risk of errors while freeing up valuable resources for other critical tasks. This advancement will equip Petitioner to propose accurate and reliable figures related to performance targets, ensuring that data underpinning operations maintains the highest standards of integrity and reliability.

7.2.8. Furthermore, as submitted in the Capital Investment Plan, the Petitioner intends to overhaul the metering infrastructure wherein DT and Feeder Meters are proposed to be replaced to ensure state-of-the-art metering infrastructure is in place. This shall ensure automated reporting of Reliability Indices as specified by the Hon'ble Commission. Thus, the Petitioner humbly requests the Hon'ble Commission to duly determine the Reliability Indices at the time of Mid-Term Review as the necessary infrastructure would be in place.

7.2.9. In view of the above, the Petitioner seeks to invoke the powers of the Hon'ble Commission under Regulations 84 to 89 of the Tariff Regulations, 2024 and all other applicable provisions to seek the following relaxations: -

(a) Permit the Petitioner to undertake the required capital investment and upgradation of the necessary facilities to put in place an automated mechanism for monitoring and restoring outages.

(b) Till such time the required upgradation is done, the reliability indices may be based on the past performance of EWEDC,

(c) Permit Petitioner to place on record the additional data and information, after receipt from the authorized sources and due verification and undertaking the upgradation of the facilities as mentioned above, at the time of Mid-Term Review for a comprehensive determination of the reliability indices.

7.2.10. This submission is made without prejudice to CPDL's rights and contentions, reflecting a commitment to continuous improvement and excellence in service delivery.

8. Manpower Plan

8.1. Regulatory Provision

8.1.1. As per Regulation 8.5(g) of the Tariff Regulations 2024 for the Control Period FY 2025- 26 to FY 2029-30, the distribution licensee shall provide projections for number of employees during each year of the control period. The relevant extract of the MYT Regulations 2024 is reproduced below:

> ***"8.5 The Business Plan filed by Distribution Licensee shall inter-alia contain:***
>
> ....
>
> *g)* ***Projections for number of employees*** *during each Year of the Control Period based on proposed recruitment and retirement*
>
> "

8.2. Organization Structure: Roles & Responsibilities

8.2.1. Pursuant to the Transfer Scheme and SPA both dated 31.01.2025, CPDL has taken over the distribution and retail supply functions of the EWEDC with effect from 01.02.2025. All the 4 divisions and 10 sub-divisions are transferred to CPDL to manage the operations.

8.2.2. Prior to the transfer date, a preliminary assessment of EWEDC was conducted and it was identified that the organization structure of the EWEDC was de-centralized with each division following their own budgeting process and commercial activities. This de-centralized organization structure led to duplication of roles in each division leading to inefficiencies in work processes and making it difficult to become a lean organization.

8.2.3. To become state-of-the-art utility, CPDL is aiming for a lean and efficient organization structure designed to avoid duplicities of work as shown in figure below. Various departments are bifurcated into verticals to streamline operations by clearly defining roles and responsibilities, reducing redundancies, and enhancing focus on specific functions.

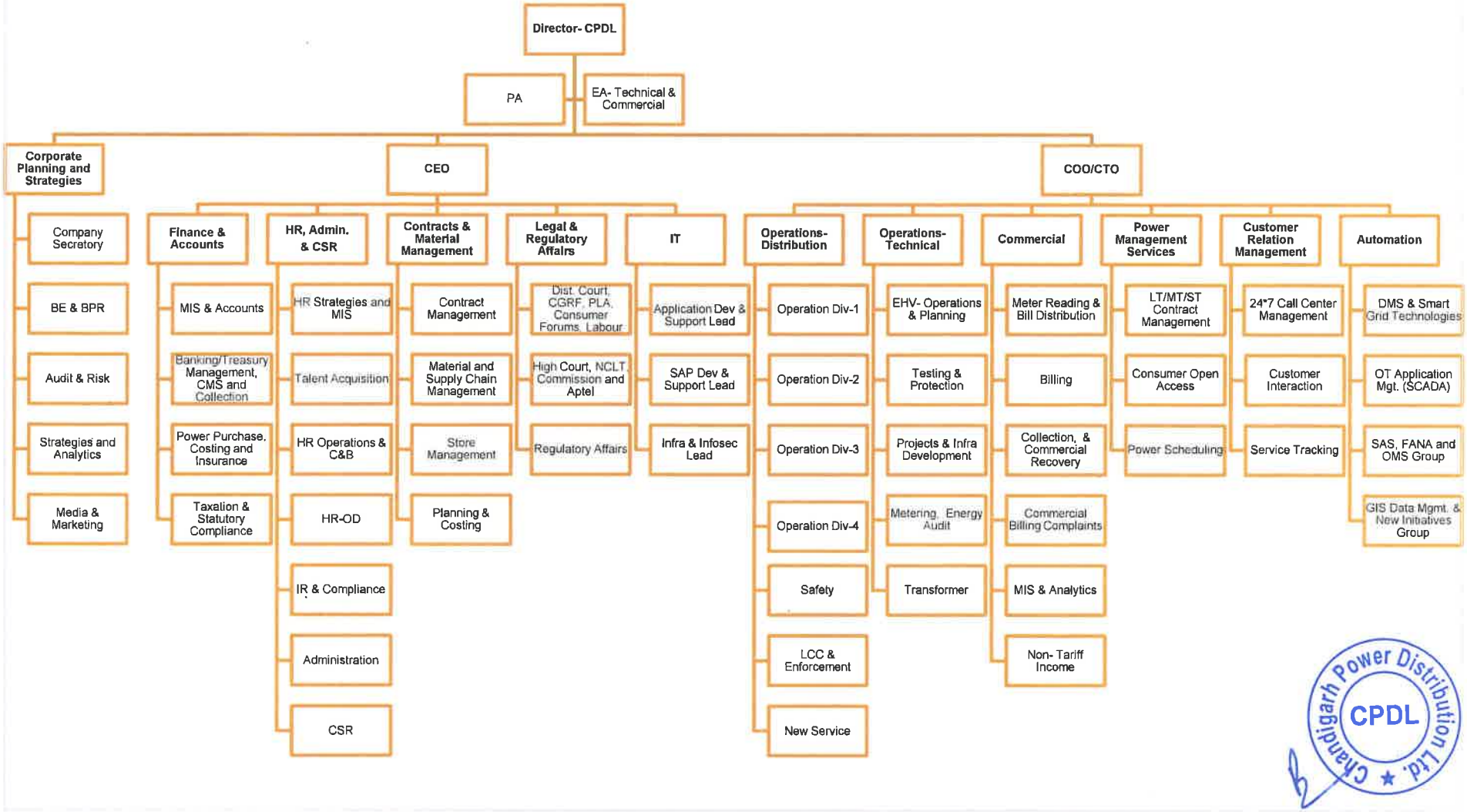

Figure 12. Organization Structure of CPDL

8.3. Number of employees

8.3.1. In terms of Chandigarh Electricity Reforms Transfer Scheme, 2025, a total of 857 employees, comprising 349 permanent staff and 508 outsourced employees, were transferred from the EWEDC to Petitioner.

8.3.2. EWEDC had 586 permanent employees out of which 237 employees were retained by the UT Administration and were not transferred to the Petitioner. Most of the experienced employees from Groups A and B were retained by the UT Administration.

Table 81. Grade-wise breakup of transferred employees from EWEDC to CPDL

Grade	Employees in EWEDC	Employees transferred to CPDL
A	20	2
B	91	66
C	430	262
D	45	19
Total	**586**	**349**

8.3.3. This retention by UT Administration created a vacuum of skilled and experienced manpower in the organization structure of CPDL and to manage the operations of electricity distribution functions for the initial few months post takeover, CPDL had appointed additional employees to partially fill the voids created by retention of the EWEDC employees. Additionally, CPDL has also deputed experienced employees from the various subsidiaries of the parent company. With this, the total employee strength of CPDL as on transfer date reached 1,120.

8.3.4. Petitioner aims to become a best-in-class utility by adopting modern technologies and various other automation initiatives and technology implementations as discussed earlier. These systems require skilled manpower to operate and manage, which CPDL is lacking at the moment and there is a need to recruit new employees with strong technical and managerial capabilities.

8.3.5. With the organization structure in place, and verticals defined for each department, the need for recruitment and vacancies have been identified as per the below mentioned philosophy:

(i) Each vertical should have at least one employee at manager and above role with 15+ years of experience to manage and provide strategic inputs and directions for the operation of that vertical

(ii) Each vertical should have at least one employee at Deputy Manager/ Assistant Manager/ Officer level with ~10+ years of experience to provide support to the managers and review the business operations on a daily basis

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(iii) Each sub-division should have at least one Junior Engineer to provide round-the-clock services and attend complaints

(iv) Each sub-division should have at least 2-3 Junior Engineer Trainees (JETs) to provide handhold support to JEs and to ensure smooth succession planning by gaining on-ground practical experience at the sub-division offices.

(v) Each vertical should have at least 2 Senior Executives/ Executives to perform the daily business operations

(vi) Each vertical of critical departments involving field operations such as Operations-Technical, Operation-Distribution and Automation should have at least one management trainee (MT) to provide handhold support to engineers and gain on-ground experience for the succession planning

8.3.6. Along with this, Petitioner is also focusing on the following activities which would rationalize their requirement of additional manpower over the coming years:

(i) Adoption of smart meters would eliminate the need for meter readers and remote diagnostics would reduce the need of field technicians However, this shift concurrently increases the need for skilled personnel to perform advanced data analytics and research on metering data.

(ii) Implementation of SCADA/ ADMS systems would automate many routine operations, such as switching, load balancing, voltage regulation, outage management, and distribution management. This would reduce the need for manual intervention by field operators and decrease the number of personnel required for these tasks. Also, these systems would provide advanced fault detection capabilities, enabling rapid identification and isolation of faults in the distribution network. This would reduce the need for large teams of field technicians to locate and address issues, as the system can pinpoint problems more accurately and quickly.

(iii) IT enablement and adoption of SAP ERP modules in day-to-day business processes would enhance the capabilities in real-time data processing, analytics and provide centralized management. This would enhance operational efficiency and reduce manpower requirements by automating and streamlining processes across the organization

8.3.7. Considering these, Petitioner is proposing its manpower requirement plan for the control period FY 2025-26 to FY 2029-30:

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Table 82. Number of employees projections for the control period FY 2025-26 to FY 2029-30

SN	Particulars	2025-26	2026-27	2027-28	2028-29	2029-30
1	Total No. of employees as on 1st April	1,120	1,216	1,297	1,339	1,365
2	No. of employees added during the year	101	95	57	42	40
3	No. of employees retiring during the year	5	14	15	16	16
4	**No. of employees at the end of the year**	**1,216**	**1,297**	**1,339**	**1,365**	**1,389**

8.3.8. Furthermore, the Petitioner humbly reiterates that it commenced operations from 01.02.2025 and the number of employees as projected above is based on various parameters and assumptions as stated above. The projections are based on preliminary understanding of the extant distribution network and license area, which may be subject to modification as the Petitioner gains greater understanding of the prevailing network conditions and license area. Accordingly, the Petitioner seeks to invoke the powers of the Hon'ble Commission under Regulations 84 to 89 of the Tariff Regulations, 2024 and all other applicable provisions to crave leave of the Hon'ble Commission to duly make revised submission(s), if required in the interest of justice, during the proceedings of the Business Plan, or at any time during the Control Period.

9. Income from Other Business

9.1. Regulatory Provision

9.1.1. As per Regulation 8.5(h) of the Tariff Regulations 2024 for the Control Period FY 2025- 26 to FY 2029-30, the distribution licensee shall provide proposal in respect of Other Business Income for each year of the Control Period, the same is reproduced as under:

> ***"8.5 The Business Plan filed by Distribution Licensee shall inter-alia contain:***
>
> ....
>
> *h)* **Proposals in respect of income from Other Business** for each Year of the Control Period."

9.1.2. Furthermore, Regulation 2(f) of the JERC (Treatment of Other Business of Transmission Licensees and Distribution Licensees) Regulations, 2009 defines as under:

> *"2. Definitions and interpretation:-*
>
> ...
>
> *(f) "Other Business" means any business by the Licensee other than the Licensed Business: Undertake for optimum utilization of its assets."*

9.1.3. Petitioner submits that as it has commenced functions of distribution and retail supply of electricity only from 01.02.2025 in UT of Chandigarh, Petitioner is duly focusing on providing best-in-class services with the provision of 24x7 reliable and quality supply of electricity to its consumers. At present, Petitioner does not have adequate information, knowledge and details to prepare a plan in respect of Other Business Income. However, during the Control Period, the Petitioner will be actively exploring ways for earning Income from Other Business. Indicative measures which may be explored during the period from FY 2025-26 to FY 2029-30 are illustrated below:

a) Advertising and hoardings: Petitioner propose to explore means for leveraging high tourist footfall in the UT of Chandigarh and duly host advertisements on its online platforms and physical assets, subject to compliance with prevalent Rules and Regulations including the Municipal Codes and Building Bye Laws.

b) Rental income from poles: Utility poles can be monetized through lease rental for cable transmission.

c) Customized Training: Petitioner would accord highest priority to ensure that training as per relevant Regulations and Standards is provided to its staff. With the passage of time and with due expertise, Petitioner may explore utilization of its expertise to provide customized training on various aspects of operations of Discoms.

d) Installation of Telecom towers, EV Charging facilities, installation, operation, maintenance of street light etc.

9.1.4. At this moment, the Petitioner is primarily focusing on gaining better understanding of the distribution operations in the Union Territory and has not evaluated the potential income from other business. The Petitioner submits that any due proposals for generating Income from Other Business shall be submitted in due course of time, in terms of the JERC (Treatment of Other Business of Transmission Licensees and Distribution Licensees) Regulations, 2009.

9.1.5. In view of the above, the Petitioner seeks to invoke the powers of the Hon'ble Commission under Regulations 84 to 89 of the Tariff Regulations, 2024 and all other applicable provisions to seek permission to place on record the additional data and information, after receipt from the authorized sources and due verification and undertaking the upgradation of the facilities as mentioned above, at the time of Mid-Term Review for a comprehensive determination of the plan for generating Other Business Income.

10. Prayer

The Petitioner humbly prays to the Hon'ble Commission to:

a) Admit the Business Plan Petition filed by CPDL for the Control Period from FY 2025-26 to FY 2029-30 in accordance with Regulation 8 of the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2024;

b) Approve the Business Plan for CPDL for the Control Period from FY 2025-26 to FY 2029-30;

c) Exercise its powers under Section 86, , Section 61, 62 and 64 of the Electricity Act, 2003 read with Regulations 84 to 89 of the Tariff Regulations, 2024 and all other applicable provisions to:

   (i) condone any inaccuracies/ error/omission on account of the issues being faced by the Petitioner, as detailed in the Petition and grant opportunity to the Petitioner to rectify the same, as and when the same comes to light.

   (ii) grant necessary relaxations in view of the submissions made hereinabove in Parts 1 to 9 of the present Petition;

   (iii) grant liberty to Petitioner to file supplementary or additional submissions, revised information or projections or estimates or take other permissible steps in accordance with the Electricity Act, 2003 or the Tariff Regulations to place on record any inadvertent discrepancies that may have crept in or that may have arisen, after receipt of the complete official data and information.

d) Pass any such further Order(s) as the Hon'ble Commission may see fit and necessary in the interests of justice and in view of the peculiar facts and exigencies of the present situation faced by the Petitioner;

e) Grant any relief as the Hon'ble Commission considers appropriate.

Date: 09-06-2025

Place: Chandigarh

For Chandigarh Power Distribution Limited

Chandigarh Power Distribution Ltd. CPDL

Annexure 1: Detailed scheme-wise justification of 66 KV and 33 KV schemes under Network Improvement and Optimization

S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
1	66/11 kV Sector-1 GSS	New Feeder	Construction of 66 kV underground feeder from 220 KV Kishangarh GSS to Sector-1 GSS	2025-26	2.57	1.04	3.60	4.25	Currently Sector-01 GSS is charged from 220kV Kishangarh GSS through a single circuit line erected on double circuit tower. It is proposed to erect the other circuit (5 Ckt KM) to provide second 66kV source from 220kV Kishngarh GSS. For the purpose 3 Ckt KM 1X1000 Sq MM 66kV Cable will also be laid due to non availability of overhead corridor.
2	66/11 kV Sector-1 GSS	New Feeder	Construction of 66 kV underground feeder from 220 KV Kishangarh GSS to Sector-1 GSS	2026-27	1.71	0.69	2.40	2.83	Currently Sector-01 GSS is charged from 220kV Kishangarh GSS through a single circuit line erected on double circuit tower. It is proposed to erect the other circuit (5 Ckt KM) to provide second 66kV source from 220kV Kishngarh GSS. For the purpose 3 Ckt KM 1X1000 Sq MM 66kV Cable will also be laid due to non availability of overhead corridor.
3	66/11 kV Sector-34 GSS	New Feeder	Construction of 66 kV underground feeder from Sector-37 GSS to Sector-34 GSS	2026-27	3.17	1.38	4.55	5.37	There is only 01 66kV Source for Sector-34 GSS from Sector-32 GSS. The existing other source for Sector-34 GSS is of 33kV which will become redundent post replacement of 33kV network assets of this GSS with 66kV Network Assets. In order to provide redundancy and N-1 contingency at 66kV Feeder Level for Sector-34 GSS, this new feeder is proposed.
4	66/11 kV Sector-37 GSS	New Feeder	Construction of 66 kV underground feeder from 220 kV PGCIL Hallo Majra GSS to Sector-37 GSS	2026-27	6.90	3.00	9.90	11.68	This GSS is proposed to be converted from 33/11kV to 66/11kV and accordingly, a new 66kV feeder is proposed from 220kV PGCIL Hallo Majara GSS. This will also provide N-1 contingency at 66kV Feeder Level.
5	66/11 kV Sector-17 GSS	New Feeder	Construction of 66 kV underground feeder from 220 kV PGCIL Hallo Majra GSS to Sector-17 GSS	2026-27	6.21	2.70	8.91	10.51	This GSS is proposed to be converted from 33/11kV to 66/11kV and accordingly, a new 66kV feeder is proposed from 220kV PGCIL Hallo Majara GSS. This will also provide N-1 contingency at 66kV Feeder Level.
6	PGCIL Hallo Majra	New Feeder	Laying of 5nos. 66kV ckt. (with spares) from 220 kV PGCIL Hallo Majra across railway line along approved power evacuation corridor (5+1 Spare Circuit)	2026-27	3.22	1.40	4.62	5.45	This new scheme proposes laying of 66kV underground cables from 220kV PGCIL Hallo Majara GSS up to the railway crossing in order to cross all 66kV circuits at one go as this activity will require railway permission for crossing the railway track. After the railway crossing further laying of feeders will be done as per proposed plan as mentioned herein.
7	PGCIL Hallo Majra	New Feeder	Laying of 5nos. 66kV ckt. (with spares) from 220 kV PGCIL Hallo Majra across railway line along approved power evacuation corridor (5+1 Spare Circuit)	2025-26	1.38	0.60	1.98	2.34	This new scheme proposes laying of 66kV underground cables from 220kV PGCIL Hallo Majara GSS up to the railway crossing in order to cross all 66kV circuits at one go as this activity will require railway permission for crossing the railway track. After the railway crossing further laying of feeders will be done as per proposed plan as mentioned herein.
8	66/11 kV Sector-34 GSS	New Feeder	Construction of 66 kV underground feeder from Sector-37 GSS to Sector-34 GSS	2027-28	2.12	0.92	3.04	3.58	There is only 01 66kV Source for Sector-34 GSS from Sector-32 GSS. The existing other source for Sector-34 GSS is of 33kV which will become redundent post replacement of 33kV network assets of this GSS with 66kV Network Assets. In order to provide redundancy and N-1 contingency at 66kV Feeder Level for Sector-34 GSS, this new feeder is proposed.
9	66/11 kV Sector-37 GSS	New Feeder	Construction of 66 kV underground feeder from 220 kV PGCIL Hallo Majra GSS to Sector-37 GSS	2027-28	4.60	2.00	6.60	7.79	This GSS is proposed to be converted from 33/11kV to 66/11kV and accordingly, a new 66kV feeder is proposed from 220kV PGCIL Hallo Majara GSS. This will also provide N-1 contingency at 66kV Feeder Level.
10	66/11 kV Sector-17 GSS	New Feeder	Construction of 66 kV underground feeder from 220 kV PGCIL Hallo Majra GSS to Sector-17 GSS	2027-28	4.14	1.80	5.94	7.01	This GSS is proposed to be converted from 33/11kV to 66/11kV and accordingly, a new 66kV feeder is proposed from 220kV PGCIL Hallo Majara GSS. This will also provide N-1 contingency at 66kV Feeder Level.
11	66/11 kV Sector-39 GSS	New Feeder	Construction of 66kV underground feeder from Sector-37 GSS to Sector-39 GSS	2027-28	3.11	1.35	4.46	5.26	The existing 66kV source feeder for Sector-39 is supplied from the PSTCL 220/66kV Mohali GSS. To enhance reliability and ensure redundancy, a new feeder is proposed from PGCIL Hallo Majara to Sector-39 via Sector-37. This additional source will improve network stability by providing an alternate supply path, ensuring uninterrupted power in case of an outage at the PSTCL 220/66kV Mohali GSS due to any unplanned outages.
12	66/11 kV Sector-39 GSS	New Feeder	Construction of 66kV underground feeder from Sector-37 GSS to Sector-39 GSS	2028-29	2.07	0.90	2.97	3.50	The existing 66kV source feeder for Sector-39 is supplied from the PSTCL 220/66kV Mohali GSS. To enhance reliability and ensure redundancy, a new feeder is proposed from PGCIL Hallo Majara to Sector-39 via Sector-37. This additional source will improve network stability by providing an alternate supply path, ensuring uninterrupted power in case of an outage at the PSTCL 220/66kV Mohali GSS due to any unplanned outages.
13	66/11 kV Sector-47 GSS	New Feeder	Construction of 66 kV underground feeder from 220 kV PGCIL Hallo Majra GSS to Sector-47 GSS	2028-29	3.45	1.5	4.95	5.84	This new feeder is proposed for power evacuation from PGCIL Hallo Majra GSS which would help in meeting the future load growth of adjoining sectors along with providing the redundency at 66kV Feeder level for this GSS.
14	66/11 kV Sector-47 GSS	New Feeder	Construction of 66 kV underground feeder from 220 kV PGCIL Hallo Majra GSS to Sector-47 GSS	2029-30	2.3	1	3.3	3.89	This new feeder is proposed for power evacuation from PGCIL Hallo Majra GSS which would help in meeting the future load growth of adjoining sectors along with providing the redundency at 66kV Feeder level for this GSS.
15	66/11 kV Sector-34 GSS (Proposed Near Guradwara)	New GSS	E/T/C of 66/11 kV Grid Sub Station in Sector-34	2026-27	2.64	2.79	5.44	6.42	The New GSS at Sector-34 is proposed to share the load of existing Sector-34 & Sector-37 GSS.
16	66/11 kV Sector-34 GSS (Proposed Near Guradwara)	New GSS	E/T/C of 66/11 kV Grid Sub Station in Sector-34	2027-28	2.64	2.79	5.44	6.42	The New GSS at Sector-34 is proposed to share the load of existing Sector-34 & Sector-37 GSS.
17	66/11 kV Sector-1 GSS	New Switchgear	Installation of 04 Nos 66 KV AIS with CRP at Sector-1 GSS	2025-26	1.00	0.05	1.05	1.24	04 Nos 66kV AIS is proposed at Sector-01 GSS to provide connectivity to following feeders: 1. New Feeder from 220kV Kishangarh GSS 2. New 66kV Feeder in the future 3. Installation of Additional 20MVA PTR(future) 4. Bay for Bus Coupler Arrangement

S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
18	66/11 kV Sector-47 GSS	New Switchgear	Bay extension for Commisioning of 66kV 80MVA Underground Ckt. From PGCIL Hallo Majra to Sector-47 GSS	2026-27	0.50	0.03	0.53	0.62	The bay extension at Sector-47 GSS is required to connect proposed new feeder from PGCIL Hallo Majra GSS.
19	66/11 kV Industrial Area Phase-1	New Switchgear	Bay extenstion for commissioning of 66 kV Interconnector from 66 kV IA Phase-1 to 33 kV IA Phase-1	2027-28	0.25	0.01	0.26	0.31	01 No of 66kV interconnector is proposed between 66kV IA Phase 1 and 33kV IA Phase 1. So additional bay is required to connect this interconnecter at 66kV Yard of 66kV I A Phase-1
20	66/11 kV Sector-39 GSS	New Switchgear	Bay Extension for Commisioning of 66kV 80MVA Underground Ckt. From Sector-37 GSS to Sector-39 GSS	2027-28	0.25	0.01	0.26	0.31	This Bay Extension is required to connect proposed new feeder from Sector-37 GSS to Sector-39 GSS.
21	66/11 kV Sector-47 GSS	Interconnector	LILO of existing 66kV Interconnector between Sector-47 to Sec-52 GSS to provide supply to prop. E.V Charging Stn.(Consumer)	2026-27	1.10	0.48	1.58	1.87	This new interconnector is propsed to provide 02 Nos 66kV Source at upcoming EV Charging Station at Sector-52 Chandigarh.
22	66/11 kV Sector-34 GSS (Proposed Near Guradwara)	Interconnector	LILO of existing 66kV Interconnector between Sector-37 to Sector-34 GSS to provide double source to proposed Sector-34 GSS near Gurudwara	2026-27	0.29	0.13	0.41	0.49	This new interconnector is propsed to provide 02 Nos 66kV Source at upcoming EV Charging Station at Proposed GSS Near Gurudwara in Sector-34
23	66/11 kV Sector-47 GSS	Interconnector	LILO of existing 66kV Interconnector between Sector-47 to Sec-52 GSS to provide supply to prop. E.V Charging Stn.(Consumer)	2027-28	0.74	0.32	1.06	1.25	This new interconnector is propsed to provide 02 Nos 66kV Source at upcoming EV Charging Station at Sector-52 Chandigarh.
24	66/11 kV Sector-34 GSS (Proposed Near Guradwara)	Interconnector	LILO of existing 66kV Interconnector between Sector-37 to Sector-34 GSS to provide double source to proposed Sector-34 GSS near Gurudwara	2027-28	0.29	0.13	0.41	0.49	This new interconnector is propsed to provide 02 Nos 66kV Source at upcoming EV Charging Station at Proposed GSS Near Gurudwara in Sector-34
25	66/11 kV I T Park GSS	PTR Addition	Commissioning of 1no. New 66kV/11kV 20MVA Power Transformer at I.T. Park GSS	2025-26	2.45	0.47	2.92	3.44	At IT Park GSS, there is only one 20MVA Power Transformer (PTR), which is currently overloaded. Due to this overloading, forced load shedding had been done during last peak summer months. To address this issue, the installation of an additional 20MVA PTR is proposed. This will help in sharing the load of the existing transformer and provide N-1 contingency, ensuring a more reliable power supply for the area.
26	66/11 kV Sector-52 GSS	PTR Addition	Addition of 01 No 66/11 kV 20 MVA Power Transformer at Sector-52 GSS	2025-26	2.81	0.48	3.29	3.88	The existing 66/11kV 12.5MVA PTR-3 is aged old and overloaded. The possibility of load shifting of this PTR to another PTRs is also not possible as the other PTRs are also running on optimum load. So it is proposed to install additional 66/11kV 20MVA PTR, which will help in mitigating the overloading of existing PTR.
27	66/11 kV Sector-18 GSS	PTR Addition	Relocation of 01 No. damaged 66/11 kV 12.5 MVA Power Transformer from IA Phase-1 GSS to Sec-18 GSS along with establishing 66kV Ring main connectivity with Sec-17 GSS	2025-26	4.33	1.46	5.79	6.83	The peak load on the existing 2×12.5MVA PTRs has reached around 80% of their rated capacity and remains sustained for maximum period of the day during summer months. To enhance system reliability at the PTR level and to accommodate future load growth in adjoining areas, the installation of an additional 1×12.5MVA PTR (relocated from Sec-32 GSS) is proposed. Establishing 66kV Ring Main Connectivity at Sec-18 GSS by laying 66kV underground cable from Sec-17 GSS. Replacement of old 33kV switchgear at Sec-18 GSS.
28	66/11 kV Sector-18 GSS	PTR Addition	Relocation of 01 No. damaged 66/11 kV 12.5 MVA Power Transformer from IA Phase-1 GSS to Sec-18 GSS along with establishing 66kV Ring main connectivity with Sec-17 GSS	2026-27	1.86	0.62	2.48	2.93	The peak load on the existing 2×12.5MVA PTRs has reached around 80% of their rated capacity and remains sustained for maximum period of the day during summer months. To enhance system reliability at the PTR level and to accommodate future load growth in adjoining areas, the installation of an additional 1×12.5MVA PTR (relocated from Sec-32 GSS) is proposed. Establishing 66kV Ring Main Connectivity at Sec-18 GSS by laying 66kV underground cable from Sec-17 GSS. Replacement of old 33kV switchgear at Sec-18 GSS.
29	EV Charging at Sector-52 CPDL	PTR Addition	Bay Extension at EV Cahrging Station at Sector-52 with installation Old/Repaired 10/12.5 MVA PTR	2027-28	1.39	1.44	2.83	3.34	The Bay extension with PTR installation is proposed to enhance reliability of upcoming EV Charging Station. The 70% cost of this project will be borne by the consumer.
30	66/11 kV Sector-34 GSS (Proposed Near Guradwara)	PTR Addition	Installation of Additional 20 MVA 66/11 kV PTR at proposed 66/11 kV Grid Sub Station in Sector-34 Near Gurudwara	2027-28	2.30	0.46	2.76	3.26	The additional PTR at Sector-34 (Near Gurudwara) is proposed to share the load of existing Sector-34 GSS & Sector-37 GSS.
31	66/11 kV Sector-56 GSS	PTR Addition	Addition of 01 No 66/11 kV 20 MVA Power Transformer at Sector-56 GSS	2028-29	3.34	0.73	4.07	4.80	The peak load on the existing 2×20MVA PTRs has reached around 80% of their rated capacity and remains sustained for maximum period of the day during summer months. To enhance system reliability by providing N-1 contingency at the PTR level and to accommodate future load growth in adjoining areas, the installation of an additional 1×20MVA PTR is proposed.
32	66/11 kV Sector-39 GSS	PTR Addition	Commissioning of 1no. new 66kV/11kV 31.5MVA Power Transformer to cater to new load centres slated to emerge in and around Sec 38W	2028-29	3.50	0.63	4.13	4.87	New load centres are slated to emerge in and around Sector-38W, Daddu Majra and New Grain Market. A new 31.5MVA 66kV/11kV Power transformer is proposed to cater to these future load.
33	66/11 kV Sector-34 GSS (Proposed Near Guradwara)	PTR Addition	Installation of Additional 20 MVA 66/11 kV PTR at proposed 66/11 kV Grid Sub Station in Sector-34 Near Gurudwara	2028-29	3.59	0.47	4.06	4.79	The additional PTR at Sector-34 (Near Gurudwara) is proposed to share the load of existing 02 PTRs of this GSS.

S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
34	66/11 kV I.T Park GSS	PTR Addition	Commissioning of 1no. New 66kV/11kV 20MVA Power Transformer at I.T. Park GSS	2029-30	3.39	0.48	3.87	4.56	There will be requirement of additional 20MVA PTR at Mani Majara GSS as existing 2x20MVA PTRs are estimated to be overloaded in next 02 years. Since there is no space available for installation of additional PTR at Mani Majara GSS, It is proposed to install additional 20MVA PTR at IT Park GSS, which will share the load of overloaded PTRs of Mani Majara GSS.
35	66/11 kV Sector-47 GSS	PTR Addition	Installation of 01 No 66/11 kV 20 MVA PTR at Sector-47 GSS.	2029-30	3.09	0.47	3.56	4.20	The peak load on the existing 2×20MVA PTRs has reached around 75% of their rated capacity and remains sustained for maximum period of the day during summer months. To enhance system reliability by providing N-1 contingency at the PTR level and to accommodate future load growth in adjoining areas, the installation of an additional 1×20MVA PTR is proposed

Annexure 2: Detailed scheme-wise justification of 11 KV and LT schemes under Network Improvement and Optimization

S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
1	Division-2	11 kV New Feeder	Providing of New dedicated feeder to Daria village from IT park 66/11 KV s/s along with installation of 3 way RMU to from ring connectivity with existing feeder	2025-26	0.36	0.32	0.68	0.80	To provide dedicated feeder to Daria village where commercial areas are developing and load is increasing.
2	Division-2	11 kV New Feeder	Providing of New feeder to bifurcate the load of existing Industry-02 feeder from 66/11KV Phase-02 along with installation of 3 way RMU to from ring connectivity with existing feeder	2025-26	0.13	0.09	0.23	0.27	Load bifurcation is required to deload existing Indusinal 2 feeder which is running overload.
3	Division-2	11 kV New Feeder	Providing of New feeder to bifurcate the load of existing Industry-03 feeder from 66/11KV Phase-02 along with installation of 3 way RMU to from ring connectivity with existing feeder	2025-26	0.11	0.07	0.18	0.21	Load bifurcation is required to deload existing Industrial 3 feeder which is running overload.
4	Division-1	11 kV New Feeder	Providing 11 KV independent underground feeder from 66 KV Sector 34 GSS to I/D S/Stn. Sector 23D Chandigarh and thereafter 11 KV link between I/D S/Stn. Sector 23 D and I/D S/Stn. Sector 24 C so as to provide uninterrupted power supply to Judges Houses of Sector 24 and to the residence of Sector 23, Chandigarh.	2025-26	0.60	0.57	1.16	1.37	The necessity of above proposal has arisen due to the reason that the judges houses in Sector 24-D are facing the problem of frequent power cuts during the peak summer season. It is also evident that the power supply to the said area is being catered through only one grid source through alternate feeders, but the healthiness of the power supply always remains in question. In view to resolve the prevailing problem the above proposal has been made to counter the problem in case of emergency.
5	Division-1	11 kV New Feeder	Providing 02 Nos. U/G 11 KV feeders from New 66 Kv G/S/Stn. Sarangpur to Provide the dual source of supply to various category houses in Police Complex at Village Dhanas and Deload the existing 11 KV Rehabilitation Feeder and Dhanas Feeder.	2025-26	0.66	0.64	1.30	1.53	The above proposal have been made in view of the recently energization of the 66 KV Grid Sub Station Sarangpur. By providing two number 11 KV underground feeders from the above sub station the position of the power supply of the respective area will be enhanced and the utilization of optimum capacity at the level of 66 KV Grid will lead to providing the relief to the other 66 KV GSS through a cascading effect.
6	Division-1	11 kV New Feeder	Providing new 11 KV feeder to University Campus, Sec-14 from 66KV GSS Sarangpur	2025-26	0.31	0.23	0.54	0.63	The Punjab University is one of the most prestigious institution of the City. Having a new substation in the close vicinity i.e. 66 KV GSS Sarangpur necessitates to strengthen the 11 KV network of power supply to the above institution. The existing resources are running to the full of the throttle and requires to be provided with substantial relief by way of intercepting and proportionately shifting the load on the new feeder.
7	Division-1	11 kV New Feeder	Providing 11 KV UG independent feeder from 66 KV GSS sector 34 to market complex of sector 22C market, i.e. SCO No. 2480 to deload 11 KV Aroma feeder eminating from 66 KV GSS Sector 18	2025-26	0.20	0.16	0.36	0.43	The commercial bell at the backside of Aroma hotel is suffering from acute problem of the repeated trippings due to overloading on the existing 11 KV Feeder. The above feeder is required to segregated into two parts to overall stabilize the position of the power under the respective area. Instant proposal covers the laying of 01 No. additional 11 KV feeder in underground manner from existing 66 KV GSS Sector 34, Chandigarh. the above provision will strengthen the position of the power supply in the area and will remove the problem of the repeated power failures permanently.
8	Division-1	11 kV New Feeder	Conversion of administrative control of 11 KV Sector 39/24 feeder from GSS Sector 39 to 33 KV GSS, Sector 37 by providing additional 3x300 SQmm ccable from 33 KV GSS Sec 37 to H pole structure near round about Sec 24 C to remove the hassles and making system safer and risk free	2025-26	0.17	0.13	0.30	0.35	The instant proposal has been made to reduce the prevailing hassles to the field staff. The length of existing 11 KV Sector 39/24 feeder eminating from 66 KV GSS 39 is approximately 6 Kms and caters to the power supply of Sector 37 D, C, B and 24-C along with ring main source of supply to the judges houses in Sector 24D. Under the fault conditions the staff of both the sub division approaches for the restoration of supply and creates a position of suspicion which may lead to some serious problem in future. In order to overall improve the system efficiency and better regulatory control it has been proposed to bifurcate the area of both the sub divisions which are running in independent manner. The proposal will consist of laying 11 KV 300mmsq cable from existing 33 KV GSS and upto the point on H pole near sector 24 C chowk. The above exercise will create independent Sector 24C feede from 33 KB GSS Sector 37. Also the regulatory control of 39/24 feeder will be handed over to Sub Division No. 7 independently which will also become hassle free and in case of exigencies no hardship will be created to the field staff. The system efficiency by virtue of executing above work will be improved.
9	Division-2	11 kV New Feeder	Providing additional 2 Nos. 11 KV feeder for Indira Colony and Manimajra Town from 66 KV GSS IT Park for improvement of LD system under jurisdiction of CPDL OP Sub Divn. No. 8, Manimajra, Chandigarh	2026-27	0.49	0.51	1.00	1.18	To bifurcate the load of Indra colony feeder and rural feeder
10	Division-4	11 kV New Feeder	Providing 11kV underground independent feeder from 66 kV GSS 56 and 1X 630 kVA CSS to de-load the existing 11kV overhead feeder and pole mounted transformers of village Palsora for the improvement of LD system under the CPDL, Electy (OP) Sub Division No. 09, Sector-43 Chandigarh.	2026-27	0.79	0.30	1.08	1.28	To provide relieve to P/M transformer and to improve voltage condition in the area.
11	Division-1	11 kV New Feeder	Providing new 11 KV feeder to Aman Chaman Colony, Dhanas from 66KV GSS Sarangpur	2026-27	0.66	0.54	1.20	1.41	Having a new substation in the close vicinity i.e. 66 KV GSS Sarangpur necessitates to strengthen the 11 KV network of power supply to the above institution. The existing resources are running to the full of the throttle and requires to be provided with substantial relief by way of intercepting and proportionately shifting the load on the new feeder.
12	Division-3	11 kV New Feeder	Providing 11KV independent underground feeder to 11KV I/D S/Stn, Sector-19 A & 19 C, from 66KV Grid S/Stn , Sector-34 for improvement of LD System under CPDL OP Sub division No. 3 UT Chandigarh. Site: - I/D Sector 19-A & C	2026-27	1.17	1.03	2.20	2.59	The existing overhead feeders to this load center is overloaded. The feeder faces frequent trippings due to overloading during peak summer months. So this new feeder is porposed to share the load of existing overloaded feeder and improve the power reliability of area.
13	Division-3	11 kV New Feeder	Providing 11KV independent underground feeder to Sector-21D, from 66KV Grid S/S	2026-27	0.18	0.14	0.32	0.38	The existing overhead feeders to this load center is overloaded. The feeder faces frequent trippings due to overloading during peak summer months. So this new feeder is porposed to share the load of existing overloaded feeder and improve the power reliability of area.
14	Division-3	11 kV New Feeder	Providing 11KV underground independent feeder to 11KV I/D S/Stn, Sector-30B from	2026-27	0.41	0.33	0.74	0.87	The existing overhead feeders to this load center is overloaded. The feeder faces frequent trippings due to overloading during peak summer months. So this new feeder is porposed to share the load of existing overloaded feeder and improve the power reliability of area.

S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
15	Division-2	11 kV New Feeder	Laying of 11 Kv 3cx300sqmm cable for strengthening the existing network of feeders Avery-01, Avery-2 and amrit flour mill to improve network reliability and quality of power supply by reducing the breakdown.	2027-28	0.31	0.32	0.63	0.74	Existing network have multiple joint and cable is under sized, no able to cater the load during the load changeover hence Replacement of existing Under size/ Sick cable is recommended of feeder(Avery-01, Avery-2 and amrit flour mill)
16	Division-3	11 kV New Feeder	Providing 11KV underground feeder to 11KV I/D S/Stn, Sector-20A from 66 KV Secto	2027-28	0.20	0.17	0.37	0.44	The existing overhead feeders to this load center is overloaded. The feeder faces frequent trippings due to overloading during peak summer months. So this new feeder is porposed to share the load of existing overloaded feeder and improve the power reliability of area.
17	Division-3	11 kV New Feeder	Providing 11 KV alternate feeder to Sector 46 from 66KV Grid S/Stn Sec- 47 for imp	2027-28	0.40	0.32	0.72	0.85	The existing overhead feeders to this load center is overloaded. The feeder faces frequent trippings due to overloading during peak summer months. So this new feeder is porposed to share the load of existing overloaded feeder and improve the power reliability of area.
18	Division-3	11 kV New Feeder	Providing/replacement 11 kV Independent U/G feeder from 66 kV S/Stn. Sec.34 to 11 kV I/D S/Stn. Sector 35C under the jurisdiction of CPDL, OP Sub Divn.No.7, Chd.	2027-28	0.19	0.11	0.30	0.36	The existing overhead feeders to this load center is overloaded. The feeder faces frequent trippings due to overloading during peak summer months. So this new feeder is porposed to share the load of existing overloaded feeder and improve the power reliability of area.
19	Division-2	11 kV New Feeder	Laying of 11 Kv 3cx300sqmm cable to provide second source of supply to indoor substation at industrial area phase-02 near Plot no 320.	2028-29	0.09	0.10	0.19	0.22	For ring connectivity between I/D substations
20	Division-2	11 kV New Feeder	Laying of 11 Kv 3cx300sqmm cable for strengthening the existing network of feeders Behlana and air force area to improve network reliability and quality of power supply by reducing the breakdown.	2028-29	0.09	0.10	0.19	0.22	Existing network have multiple joint and cable is under sized, no able to cater the load during the load changeover hence Replacement of existing Under size/ Sick cable is recommended of feeder(Behlana, Air force)
21	Division-2	11 kV New Feeder	Providing of New feeder to cater the load of Sector-47 D and deloading of existing Sector-47 C&D feeder from 66/11KV sector-47 s/s along with installation of 3 way RMU to from ring connectivity with existing feeder	2028-29	0.17	0.13	0.30	0.36	To cater the growing load of Sector 47 D and deloading of existing Sector-47 C&D feeder which is running overload.
22	Division-4	11 kV New Feeder	Providing independent 11Kv feeder to Sector – 44 B from 66KV Grid S/Stn., Sector -34, Chd. Under the control of CPDL, Electy (OP) Sub Division No. 09, Sector-43 Chandigarh.	2028-29	0.28	0.29	0.58	0.68	To releive the load 44B I/D Substation.
23	Division-2	11 kV New Feeder	Providing new 11 KV U/G Feeder for strengthening 11 KV supply system in Sector-48 and to provide un-interrupted power supply to new Govt. Hospital Sector-48, Chandigarh under jurisdiction of Electy. 'OP' S/Divn. No.5, Chandigarh	2029-30	0.11	0.11	0.22	0.26	Ring connectivity between Sector-48 UG and Sector48 A&B feeder
24	Division-2	11 kV New Feeder	Providing of New feeder to cater the load of behlana village and deloading of existing behlana feeder from 66/11 KV phase-01 s/s along with installation of 3 way RMU to from ring connectivity with existing feeder	2029-30	0.36	0.32	0.68	0.81	To cater the growing load of behlana village and deloading of existing behlana feeder which is running overload.
25	Division-3	11 kV New Feeder	Providing 11KV underground feeder to 11KV I/D S/Stn, of CS1O Sector- 30, for impro	2029-30	0.20	0.17	0.37	0.44	The existing overhead feeders to this load center is overloaded. The feeder faces frequent trippings due to overloading during peak summer months. So this new feeder is porposed to share the load of existing overloaded feeder and improve the power reliability of area.
26	Division-3	11 kV New Feeder	Providing 11 kV Independent U/G feeder from piccadily indoor sub station to CPDL Corporate office Sec 34, under the jurisdiction of CPDL. OP Sub Divn.No.7, Chd.	2029-30	0.10	0.05	0.15	0.18	The existing overhead feeders to this load center is overloaded. The feeder faces frequent trippings due to overloading during peak summer months. So this new feeder is porposed to share the load of existing overloaded feeder and improve the power reliability of area.
27	Division-2	LT Feeder	Reorganization of LT network at Village Daria & Raipur Khurd and to remove the prevailing jumbling of wires under the jurisdiction of Electy.'OP' Sub Division No. 5, UT, Chandigarh	2025-26	0.23	0.20	0.44	0.52	Replacement of Existing 400 sqmm cable with 2 no's, 3cx300sqmm cable At multiple location for ring connectivity between feeder pillars
28	Division-2	LT Feeder	Laying of LT cable of Size 4cx300sqmm double run in place of existing outlived 4cx400 sqmm LT cable from Indoor substation to LT Main to strengtning the LT network at Industrial area Phase-01, & faida village and to remove the prevailing jumbling of wires under the jurisdiction of Electy.'OP' Sub Division No. 5, UT, Chandigarh	2026-27	0.16	0.29	0.45	0.53	Replacement of Existing 400 sqmm cable with 2 no's, 3cx300sqmm cable At multiple location for ring connectivity between feeder pillars
29	Division-3	LT Feeder	Replacement of existing outlived /overheated 3½ x400mm2 LT U/G cables of LT circuit emanating from I/D S/Stn. Sec 34,36,37 with new U/G 3½ x400mm2 XLPE cable for improvement of LD system under the jurisdiction of CPDL. OP Sub Divn.No.7, Chd.	2026-27	0.07	0.07	0.14	0.17	The replacement of the existing underground (UG) cable infrastructure is being proposed due to several critical factors. Firstly, the existing cable exhibits a significant number of in-line joints, which inherently represent points of increased susceptibility to failure mechanisms such as moisture ingress, insulation degradation, and mechanical stress. This multiplicity of joints contributes directly to the cable's documented propensity for operational breakdowns, resulting in supply interruptions and increased maintenance requirements. Secondly, the electrical load demand on the feeder serving Sector-42 and Village Attava has demonstrably increased. This heightened demand places additional thermal and electrical stress on the aging cable, particularly at the numerous joint locations, further exacerbating the risk of premature failure and limiting the feeder's capacity to reliably serve the growing load. Therefore, the replacement is deemed necessary to ensure a stable and reliable power supply to the aforementioned areas.
30	Division-2	Transformer Addition	Installation of new 2 no's of new 400KVA T/F Near 11 KV Indoor Sub Station Shanti Bhawan, Plot No. 41, Industrial Area, Ph-1, Chandigarh, under the jurisdiction of Electy. 'OP' S/D No.5, Chandigarh.	2025-26	0.09	0.02	0.11	0.13	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
31	Division-2	Transformer Addition	Installation of new 2 no's of new 400KVA T/F Near 11 KV Indoor Sub Station Fire Brigade, Industrial Area, Ph-1, Chandigarh, under the jurisdiction of Electy. 'OP' S/D No.5, Chandigarh.	2025-26	0.09	0.02	0.11	0.13	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
32	Division-2	Transformer Addition	Providing 2x400 KVA P/M S/Stn T-1 Near Govt. T/W & T-2 Near public toilet , Village Behlana, for the improvement of LD system under CPDL 'OP' S/Divn. no. 5, Chandigarh.	2025-26	0.17	0.04	0.22	0.25	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
33	Division-2	Transformer Addition	Providing 3x400 KVA P/M S/Stn T-1 Near H.No 1170,Ram Darbar Ph-1, T-2,Near PK Tent House, Ph.-II & T-3, Near 4 story Building, Ram Darbar, Ph.-II, for the improvement of LD system under CPDL 'OP' S/Divn. no. 5, Chandigarh.	2025-26	0.26	0.06	0.32	0.38	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.

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S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
34	Division-2	Transformer Addition	Providing 4x400 KVA P/M S/Stn T-1 Near Plot 87, Press Side, T-2 Near Plot No 136-140/62, T-3 Near Plot No 77, T-4 Near Plot No 50 Press side, T-5 Near Plot No 144 Press side, I/A, PH-1, T-6 Near Block No 1431, Sector-29B, for the improvement of LD system under CPDL 'OP' S/Divn. no. 5, Chandigarh.	2025-26	0.35	0.08	0.43	0.51	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
35	Division-2	Transformer Addition	Providing addl. 3x400 KVA P/M T/F near H. No. 316 Village Bhagwanpura, Near Shop No 599, Near Sh. HariNath Mandir Village Kishangarh for deloading to existing 300 KVA T/F near Govt School, 300 KVA T/F Maruwala, 200 KVA T/F Welding wala at village Kishangarh for improvement of LD system under Electy. 'OP' S/Divn.No.8, Manimajra, U.T., Chandigarh.	2025-26	0.28	0.08	0.36	0.42	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
36	Division-2	Transformer Addition	Installation of 3 new 400 KVA T/F at various sites i.e. # 5162, # 5529, # 5312, # 5025 and #5211 in MHC under 11 KV Shastri feeder and MHC feeder for improvement of HT/LT system under electy op s/Div-8, Manimajra, Chandigarh	2025-26	0.26	0.06	0.33	0.38	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
37	Division-2	Transformer Addition	Installation of 5 new 400 KVA T/Fs at various sites of Indra Colony for improvement of LD system under electricity "OP" S/Div. No. 8, Manimajra, Chandigarh.	2025-26	0.44	0.11	0.54	0.64	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
38	Division-4	Transformer Addition	Providing 6x315 kVA P/M T/F at various sites in Sector-44, for improvement of LD system Chandigarh Under CPDL, Electy (OP) Sub Division No. 09, Sector-43 Chandigarh	2025-26	0.49	0.12	0.61	0.72	To reduce the overloading issue of the existing DT's during summer.
39	Division-4	Transformer Addition	Providing 4x315 KVA P/M T/F near house no. 679 sector 41 opposite hotel Sagar at book Vill Attaw/Sec 42 C at near house no. 2709 42-C for strengthening/upgradation of LD system under CPDL, Electy (OP) Sub Division No. 09, Sector-43 Chandigarh	2025-26	0.33	0.08	0.41	0.49	To reduce the overloading issue of the existing DT's during summer.
40	Division-1	Transformer Addition	Providing New Transfrormers for system revamping to be provided at various locations (400 KVA on 4 pole Structure with allied material i.e. 5 No. Earth, 630 Amp ACB Panel + 2 MCBs 400 Amp.) Site :- SD no. 1= 3 nos. of DTR Proposed SD no. 2= 4 nos. of DTR Proposed SD no. 4 = 3 nos. of DTR Proposed Total= 10 nos. of DTR Proposed	2025-26	1.69	0.76	2.45	2.90	The above proposal have been made to replace the old outdated obselete and underrated transformer prone to the repeated failures leading to compromise in the power supply with new 400 KVA copper wound transformer along with controlling switches on every side for overall improvement of the system efficiency.
41	Division-3	Transformer Addition	Providing additional 2x400 KVA P/M T/F near House no. 1257, Sec-21-B & near Dev Samaj School Sec 21D for deloading 2 nos. P/M T/F's (1 no. 200kVA and 1 no. 300kVA T/F) under CPDL 'OP' S/Divn. No.3, Chandigarh Site: - near House no. 1289 & 1257 sector 21.	2025-26	0.53	0.09	0.63	0.74	The proposal for installation of additional transformer at various location proposed to share the load of existing overloaded Distribution Transformers. Thus improving the power supply reliability by improving the distribution network.
42	Division-3	Transformer Addition	Providing additional 1x400 KVA P/M T/F near SCO 135, Sec 28 D, Chandigarh for delo	2025-26	0.40	0.07	0.47	0.56	The proposal for installation of additional transformer at various location proposed to share the load of existing overloaded Distribution Transformers. Thus improving the power supply reliability by improving the distribution network.
43	Division-3	Transformer Addition	Providing new 400 KVA DTRs for sharing the load of existing overloaded DTs in 11 kV I/D S/Stn. Sec.46, S/S, U.T., Chd.	2025-26	0.67	0.12	0.78	0.93	The proposal for installation of additional transformer at various location proposed to share the load of existing overloaded Distribution Transformers. Thus improving the power supply reliability by improving the distribution network.
44	Division-2	Transformer Addition	Providing 4x400 KVA P/M S/Stn T-1 Near Maszid, T-2 Near AT-1, T-3 Near FJ-21 and T-4, Near Jungle side, Backside gas colony Village- Daria, for the improvement of LD system under CPDL 'OP' S/Divn. no. 5, Chandigarh.	2026-27	0.35	0.08	0.43	0.51	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
45	Division-2	Transformer Addition	Providing 2x400 KVA P/M S/Stn T-1 Near RN-59 and & T-2 Near Pushap Vihar , Village- Raipur Khurd, for the improvement of LD system under CPDL 'OP' S/Divn. no. 5, Chandigarh.	2026-27	0.17	0.04	0.22	0.25	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
46	Division-2	Transformer Addition	Providing 2x400 KVA P/M S/Stn T-1 Near Madi, & T-2 Near Railway Bridge, Village- Faidan, for the improvement of LD system under CPDL 'OP' S/Divn. no. 5, Chandigarh.	2026-27	0.17	0.04	0.22	0.25	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
47	Division-4	Transformer Addition	Providing 5x400 kVA P/M T/F at various locations close to load centre in sector 40 C & D, Chandigarh for the improvement of LD System under CPDL, Electy OP S/Divn no.10, Chd.	2026-27	0.29	0.11	0.40	0.47	for the improvement of LD System
48	Division-4	Transformer Addition	Providing 5x400 P/M T/F's at vairous locations close to load centre in Sec-38 A & B, Chandigarh for the improvement of LD system under CPDL, Electy (OP) Sub Division No. 10 Chandigarh	2026-27	0.31	0.14	0.45	0.53	Installation at vairous locations close to load centre in Sec-38 A & B, Chandigarh for the improvement of LD system
49	Division-4	Transformer Addition	Providing 02 X 400 kVA P/M T/F for the improvement of LD system in Village Dadumajra, Chandigarh under the jurisdiction of CPDL, Electy (OP) Sub Division No. 10, Chandigarh	2026-27	0.20	0.07	0.27	0.32	for the improvement of LD system in Village Dadumajra
50	Division-4	Transformer Addition	Providing 4x 400 KVA T/F's at various location close to load centre in sector 39 B & 39 C for the improvement of LD system under CPDL, Electy (OP) Sub Division No. 10 Chandigarh	2026-27	0.20	0.08	0.28	0.33	Installations at various location close to load centre in sector 39 B & 39 C for the improvement of LD system
51	Division-4	Transformer Addition	Providing 5x 400 KVA T/F's at various locations close to load centre in sector 56, Chd for the improvement of LD system under CPDL, Electy (OP) Sub Division No. 10 Chandigarh	2026-27	0.20	0.08	0.28	0.33	Installations at various locations close to load centre in sector 56, Chd for the improvement of LD system

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S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
52	Division-1	Transformer Addition	Providing New Transfrormers for system revamping to be provided at various locations (400 KVA on 4 pole Structure with allied material i.e. 5 No. Earth, 630 Amp ACB Panel + 2 MCBs 400 Amp.) Site :- SD no. 1= 3 nos. of DTR Proposed SD no. 2= 4 nos. of DTR Proposed SD no. 4 = 3 nos. of DTR Proposed Total= 10 nos. of DTR Proposed	2026-27	1.69	0.76	2.45	2.90	The above proposal have been made to replace the old outdated obselete and underrated transformer prone to the repeated failures leading to compromise in the power supply with new 400 KVA copper wound transformer along with controlling switches on every side for overall improvement of the system efficiency.
53	Division-3	Transformer Addition	Providing additional 3x400 KVA P/M T/F near House no. 26, 1001, 2162 Sec-19 for de	2026-27	0.40	0.07	0.47	0.56	The proposal for installation of additional transformer at various location proposed to share the load of existing overloaded Distribution Transformers. Thus improving the power supply reliability by improving the distribution network.
54	Division-3	Transformer Addition	Providing additional 1x400 KVA P/M T/F near # 3235, Sec 27 D, Chandigarh to deloa	2026-27	0.40	0.07	0.47	0.56	The proposal for installation of additional transformer at various location proposed to share the load of existing overloaded Distribution Transformers. Thus improving the power supply reliability by improving the distribution network.
55	Division-3	Transformer Addition	Providing additional 1x400 KVA P/M T/F near House no. 1299, Sec-19-B to deload existing 11 KV I/D S/Stn. sec.19/B. Site: - Near House No. 1299, Sector 19-B	2026-27	0.13	0.02	0.16	0.19	The proposal for installation of additional transformer at various location proposed to share the load of existing overloaded Distribution Transformers. Thus improving the power supply reliability by improving the distribution network.
56	Division-3	Transformer Addition	Providing additional 4x400 KVA T/F for deloading the existing P/M T/F and further replacement and augumentation of old and outlived service cables and ACSR 8/6 No to ACSR 103 mm2 in Sector 30 to reduce line losses under the jurisdiction of under CPDL op S/Divn no 6 chd	2026-27	0.53	0.09	0.63	0.74	The proposal for installation of additional transformer at various location proposed to share the load of existing overloaded Distribution Transformers. Thus improving the power supply reliability by improving the distribution network.
57	Division-3	Transformer Addition	Providing additional 5x400 KVA P/M S/Stn near #1201,1131 & 1394, Sec-33C and #1577, 1683 Sec-33D for improvement of LD System under the jurisdiction of S/Divn No. 7, Chd	2026-27	0.70	0.12	0.82	0.97	The proposal for installation of additional transformer at various location proposed to share the load of existing overloaded Distribution Transformers. Thus improving the power supply reliability by improving the distribution network.
58	Division-3	Transformer Addition	Repalcement of existing 100/200 KVA P/M T/F overloaded with 400 KVA new transfor	2026-27	2.52	0.45	2.97	3.50	The proposal for installation of additional transformer at various location proposed to share the load of existing overloaded Distribution Transformers. Thus improving the power supply reliability by improving the distribution network.
59	Division-3	Transformer Addition	Replacement and augmentation of existing Outlived P/M T/F/s of capacity of 100/200/300KVA with 400 KVA copper wound improvement of position of power supply under the jurisdiction of CPDL 'OP'S/Div. no-7,UT, Chd.	2026-27	0.42	0.07	0.49	0.58	The proposal for installation of additional transformer at various location proposed to share the load of existing overloaded Distribution Transformers. Thus improving the power supply reliability by improving the distribution network.
60	Division-2	Transformer Addition	Installation of new 2 no's of new 400KVA T/F Near 11 KV Indoor Sub Station Sector-31C , Chandigarh, under the jurisdiction of Electy. 'OP' S/D No.5, Chandigarh.	2027-28	0.17	0.04	0.22	0.25	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
61	Division-2	Transformer Addition	Installation of new 2 no's of new 400KVA T/F Near Indoor Sub Station Sector-31D , Chandigarh, under the jurisdiction of Electy. 'OP' S/D No.5, Chandigarh.	2027-28	0.17	0.04	0.22	0.25	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
62	Division-2	Transformer Addition	Providing 2x400 KVA P/M S/Stn T-1 Near H.No. 1510/19 & T-2 Near H.No. 1549 , Village Hallomajra, for the improvement of LD system under CPDL 'OP' S/Divn. no. 5, Chandigarh.	2027-28	0.17	0.04	0.22	0.25	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
63	Division-2	Transformer Addition	Electrification of outside Lal Dora for release of individual connection of Shashtri Nagar under the jurisdiction of Electy.'OP' Sub Divn.No.8, U.T. Chandigarh.	2027-28	0.91	0.40	1.30	1.54	Installation of new transformers are proposed for electrification of area for releasing the new connection
64	Division-2	Transformer Addition	Providing 5x400 KVA T/Fs in Manimajra town for improvement of LD system under electricity "OP" S/Div. No. 8, Manimajra, Chandigarh.	2027-28	0.26	0.06	0.32	0.38	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
65	Division-2	Transformer Addition	Providing 2X400 KVA T/Fs in bank colony , 1 no. 315 KVA back side police stalion and 1 No. 315 KVA T/F near Fozi Dhaba for improvement of LD system under electricity "OP" S/Div. No. 8, Manimajra, Chandigarh.	2027-28	0.17	0.04	0.22	0.25	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
66	Division-2	Transformer Addition	Installation of 3 No's of New 400 KVA T/Fs at various sites of Mauli and mauli complex for improvement of LD system under electricity "OP" S/Div. No. 8, Manimajra, Chandigarh.	2027-28	0.26	0.06	0.32	0.38	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
67	Division-4	Transformer Addition	Providing 5x400 kVA P/M T/F at various locations close to load centre in sector 40 C & D, Chandigarh for the improvement of LD System under CPDL, Electy OP S/Divn no.10, Chd.	2027-28	0.19	0.07	0.27	0.31	for the improvement of LD System
68	Division-4	Transformer Addition	Providing 5x400 P/M T/F's at vairous locations close to load centre in Sec-38 A & B, Chandigarh for the improvement of LD system under CPDL, Electy (OP) Sub Division No. 10 Chandigarh	2027-28	0.22	0.12	0.34	0.40	Installation at vairous locations close to load centre in Sec-38 A & B, Chandigarh for the improvement of LD system
69	Division-4	Transformer Addition	Providing 4x 400 KVA T/F's at various location close to load centre in sector 39 B & 39 C for the improvement of LD system under CPDL, Electy (OP) Sub Division No. 10 Chandigarh	2027-28	0.20	0.08	0.28	0.33	Installations at various location close to load centre in sector 39 B & 39 C for the improvement of LD system
70	Division-4	Transformer Addition	Providing 5x 400 KVA T/F's at various locations close to load centre in sector 56, Chd for the improvement of LD system under CPDL, Electy (OP) Sub Division No. 10 Chandigarh	2027-28	0.10	0.04	0.14	0.17	Installations at various locations close to load centre in sector 56, Chd for the improvement of LD system
71	Division-1	Transformer Addition	Providing New Transfrormers for system revamping to be provided at various locations (400 KVA on 4 pole Structure with allied material i.e. 5 No. Earth, 630 Amp ACB Panel + 2 MCBs 400 Amp.) Site :- SD no. 1= 2nos. of DTR Proposed SD no. 2= 2 nos. of DTR Proposed SD no. 4 = 2 nos. of DTR Proposed Total= 06 nos. of DTR Proposed	2027-28	1.15	0.66	1.82	2.15	The above proposal have been made to replace the old outdated obselete and underrated transformer prone to the repeated failures leading to compromise in the power supply with new 400 KVA copper wound transformer along with controlling switches on every side for overall improvement of the system efficiency.
72	Division-3	Transformer Addition	Providing additional 4x400 KVA P/M T/F near House no. 301, house no 351, near Gugga Marri mandir and backside Dhobi ghat of sector 32, Chd for deloading of Existing Transformers and augmentation of HT ACSR conductor for improvement of LD system & reduce line losses under Electricity 'OP' S/Divn. No 6 , Sec.20C, Chd	2027-28	0.53	0.09	0.63	0.74	The proposal for installation of additional transformer at various location proposed to share the load of existing overloaded Distribution Transformers. Thus improving the power supply reliability by improving the distribution network.

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S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
73	Division-3	Transformer Addition	Providing 400 KVA P/M T/F in sector 46 & 49 for deloading of Existing Transformers under Electricity 'OP' S/Divn. No 6 , Chd	2027-28	1.47	0.26	1.73	2.04	The proposal for installation of additional transformer at various location proposed to share the load of existing overloaded Distribution Transformers. Thus improving the power supply reliability by improving the distribution network.
74	Division-2	Transformer Addition	Installation of 3 no's new 400KVA T/Fs at various site located at Ramdarbar Colony Ph.-I &II, Village - Hallomajra and village Behlana, Industrial Area Ph.-II, for the improvement of HT/LT System jurisdiction of CPDL 'OP' S/Divn. No.5,I/A, Ph-1, UT Chandigarh to deload the existing network and to reduce the LT network Length	2028-29	0.25	0.06	0.31	0.36	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
75	Division-2	Transformer Addition	Installation of 3 no's new 400KVA T/Fs at various sites of Industrial Area Ph-1, for improvement of Existing LT Network by increasing transformation capacity to cater the growing demand of area under the jurisdiction of CPDL 'OP' S/Divn. No.5,I/A, Ph-1, UT Chandigarh.	2028-29	0.26	0.06	0.32	0.38	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
76	Division-2	Transformer Addition	Installation of new 3 no's of new 400KVA T/Fs at various site of village Bair Majra, Sector-47,48, Industrial Area Ph.-II, for the improvement of HT/LT System jurisdiction of CPDL 'OP' S/Divn. No.5,I/A, Ph-1, UT Chandigarh	2028-29	0.26	0.06	0.32	0.38	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
77	Division-2	Transformer Addition	Installation of 2 No's New 400 KVA T/F Near along with Existing 500 & 800 KVA transformer to improve the Network reliability and meet the growing demand 11 KV Indoor Sub Station Sector-29, Chandigarh, under the jurisdiction of Electy. 'OP' S/D No.5, Chandigarh.	2028-29	0.09	0.02	0.11	0.13	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
78	Division-2	Transformer Addition	Providing 2x400 KVA P/M S/Stn T-1 Near H.No. 700 & T-2 Near H.No. 702 , Village- Ram Darbar, Ph-1, for the improvement of LD system under CPDL 'OP' S/Divn. no. 5, Chandigarh.	2028-29	0.17	0.04	0.22	0.25	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
79	Division-2	Transformer Addition	Providing additional 2x400 KVA P/M T/F near Community Centre and near Park Gobindpura along with augmentation and replacement of ACSR conductor of LT line for improvement of LD system under jurisdiction of Electy. 'OP' Sub Divn. No.8, Manimajra, Chandigarh.	2028-29	0.09	0.02	0.11	0.13	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
80	Division-2	Transformer Addition	Installation of 4 No's of New 400 KVA T/Fs at various sites of Manimajra town for improvement of LD system under electricity "OP" S/Div. No. 8, Manimajra, Chandigarh.	2028-29	0.35	0.08	0.43	0.51	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
81	Division-4	Transformer Addition	Providing Additional 3X400 kVA P/M T/F for release of electricity connection to newly constructed/upcomping SCO & residentional area in Sector 39-D Chandigarh for the improvement of LD System under CPDL, Electy OP S/Divn no.10, Chd.	2028-29	0.23	0.06	0.29	0.34	for release of electricity connection to newly constructed/upcomping SCO & residentional area in Sector 39-D Chandigarh for the improvement of LD System
82	Division-1	Transformer Addition	Providing New Transfrormers for system revamping to be provided at various locations (400 KVA on 4 pole Structure with allied material i.e. 5 No. Earth, 630 Amp ACB Panel + 2 MCBs 400 Amp.) Site :- SD no. 2= 5 nos. of DTR Proposed SD no. 4 = 1 nos. of DTR Proposed Total= 06 nos. of DTR Proposed	2028-29	1.15	0.66	1.82	2.15	The above proposal have been made to replace the old ouldated obselete and underrated transformer prone to the repeated failures leading to compromise in the power supply with new 400 KVA copper wound transformer along with controlling switches on every side for overall improvement of the system efficiency.
83	Division-3	Transformer Addition	Providing new 400 KVA DTRs for sharing the load of existing overloaded DTs in 11 kV I/D S/Stn. Sec.32,S/S, U.T., Chd.	2028-29	0.67	0.12	0.78	0.93	The proposal for installation of additional transformer at various location proposed to share the load of existing overloaded Distribution Transformers. Thus improving the power supply reliability by improving the distribution network.
84	Division-2	Transformer Addition	Providing 1x400 KVA P/M S/Stn T-1 Near Mandi Ground, Ram Darbar, Ph.-II, for the improvement of LD system under CPDL 'OP' S/Divn. no. 5, Chandigarh.	2029-30	0.09	0.02	0.11	0.13	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
85	Division-2	Transformer Addition	Installation of 6 No's of New 400 KVA T/Fs t at various sites of Industrial Area Phase-1, Sector 29 & sunder nagar, for the improvement of HT/LT System jurisdiction of CPDL 'OP' S/Divn. No.5,I/A, Ph-1, UT Chandigarh.	2029-30	0.52	0.13	0.65	0.76	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
86	Division-2	Transformer Addition	Installation of 4 No's of New 400 KVA T/Fs at various sites of Vikas nagar and mauli village for improvement of LD system under electricity "OP" S/Div. No. 8, Manimajra, Chandigarh.	2029-30	0.35	0.08	0.43	0.51	Installation of new transformers are proposed to meet the load growth of the area, reliability improvement and reducing the length of existing LT network.
87	Division-1	Transformer Addition	Providing New Transfrormers for system revamping to be provided at various locations (400 KVA on 4 pole Structure with allied material i.e. 5 No. Earth, 630 Amp ACB Panel + 2 MCBs 400 Amp.) Sile :- SD no. 2= 1 nos. of DTR Proposed SD no. 4 = 2 nos. of DTR Proposed Total= 03 nos. of DTR Proposed	2029-30	0.60	0.34	0.93	1.10	The above proposal have been made to replace the old ouldated obselete and underrated transformer prone to the repeated failures leading to compromise in the power supply with new 400 KVA copper wound transformer along with controlling switches on every side for overall improvement of the system efficiency.
88	Division-2	Compact Sub Station (CSS)	Installation of new 630 KVA compact substation in highly populated area to enhance electrical safety at Kalagram	2026-27	0.38	0.01	0.39	0.46	To cater temporary load of Fairs as well as to enhance safety in highly populated area by installing new 630 KVA CSS
89	Division-2	Compact Sub Station (CSS)	Replacement of 2 no's Existing multiple transformer 1, 200 kva & 1, 315 KVAcapacity with new Compact substation of 1 no's of 630 KVA in highly populated area to enhance electrical safety at Fl-21, village Daria	2026-27	0.38	0.01	0.39	0.46	To cater Growing demand as well as to enhance safety in highly populated area
90	Division-2	Compact Sub Station (CSS)	Replacement of 4 no's Existing transformer of capacity 315 KVA with new Compact substation of 2 no's of 1000 KVA in highly populated area to enhance electrical safety at Govt tubwell, Village halo majra, Citco Shed	2026-27	0.88	0.02	0.91	1.07	To cater Growing demand as well as to enhance safety in highly populated area
91	Division-2	Compact Sub Station (CSS)	Installation of new 1000 KVA compact substation in highly populated area to enhance electrical safety at Village mauli	2027-28	0.44	0.01	0.45	0.53	To cater Growing demand and Deloading of existing transformer as well as to enhance safety in highly populated area with new 1000 KVA CSS. There is no possibility of Extending Ht network and installation of OH DT due to Space constraints.

S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
92	Division-1	Compact Sub Station (CSS)	Providing 4 nos. of CSS having 1000 KVA outdoor distribution type transformer having RMU of 2 LB plus 1 VCB and on LV side having 1 ACB of 1600 Amp. And 5 Nos. outgoing MCCBs of 400 Amp. Site: - In Sector 17 Behind PSIDC Building	2027-28	2.06	0.39	2.44	2.88	The CSS has completely replaced the phenomena of providing pole mounting transformers. The PMT is a consistent danger to the inhabitants in the locality as the structure is open and has larger number of naked points. In the instant proposal the scope of 11 KV CSS has been taken at the places where the public footfall is quite high and to stop any untoward in the area the proposal have been made. The execution of above work will remove the chances of any kind of untoward in the area beside will improve the system efficiency.
93	Division-2	Compact Sub Station (CSS)	Replacement of 2 no's Existing transformer of capacity 1 no's, 315 KVA and 1 no's, 200 KVA with new Compact substation of 1 no's of 1000 KVA in highly populated area to enhance electrical safety at Bank colony, Manimajra	2028-29	0.44	0.01	0.45	0.53	There are already 3 no's, 315 KVA and 1 no's 200 KVA and 1 No's 100 KVA transformer and there no possibility to install new structure as well next to the existing structure, hence due to site constraints to cater Growing demand as well as to enhance safety in highly populated area CSS is required.
94	Division-2	Compact Sub Station (CSS)	Replacement of 4 no's Existing transformer of capacity 315 KVA with new Compact substation of 2 no's of 1000 KVA in highly populated area to enhance electrical safety at Govt tubwell, village Daria	2028-29	0.88	0.02	0.91	1.07	There are already 4 no's, 315 KVA transformer and there no possibility to install new structure as well next to the existing structure, hence due to site constraints to cater Growing demand as well as to enhance safety in highly populated area CSS is required.

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Annexure 3: Detailed scheme-wise justification of 66 KV and 33 KV schemes under Operational Reliability and Loss Reduction

S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
1		Battery & Battery Charger Replacement	Replacement of Battery and Battery Charger of various GSS under CPDL Licensee Area	2025-26	0.77	0.04	0.81	0.96	The existing battery bank and battery chargers are aged old and damaged.
2		Battery & Battery Charger Replacement	Replacement of Battery and Battery Charger of various GSS under CPDL Licensee Area	2026-27	0.17	0.02	0.18	0.21	The existing battery bank and battery chargers are aged old and damaged.
3	66/11 kV Sector-1 GSS	Protection Upgradation	66 kV and 11 kV Protection Augmentation at Sector-1	2025-26	0.21	0.01	0.22	0.26	To enhance protection, monitoring, and control, it is proposed to replace all electromechanical and static relays with modern numerical relays that comply with IEC 61850 standards. This upgrade will enable seamless feeder monitoring and control through the SCADA control room, improving operational efficiency and reliability. Additionally, the existing distance relays installed on short 66kV lines (<5 km) have operational limitations and are over 25 years old. To address these issues, it is recommended to replace them with Line Differential Protection. This will enhance reliability, improve response time, and ensure better point to point protection for the network
4	66/11 kV Industrial Area Phase-1	Protection Upgradation	CRP and Relay Replacement for 66 kV and 11 kV Feeders at IA Phase-1	2025-26	1.90	0.09	1.99	2.35	To enhance protection, monitoring, and control, it is proposed to replace all electromechanical and static relays with modern numerical relays that comply with IEC 61850 standards. This upgrade will enable seamless feeder monitoring and control through the SCADA control room, improving operational efficiency and reliability. Additionally, the existing distance relays installed on short 66kV lines (<5 km) have operational limitations and are over 25 years old. To address these issues, it is recommended to replace them with Line Differential Protection. This will enhance reliability, improve response time, and ensure better point to point protection for the network
5	66/11 kV Sector-47 GSS	Protection Upgradation	Relay replacement for 66kV & 11kV Incomers/Feeders at Sector-47 GSS	2026-27	1.08	0.05	1.14	1.34	To enhance protection, monitoring, and control, it is proposed to replace all electromechanical and static relays with modern numerical relays that comply with IEC 61850 standards. This upgrade will enable seamless feeder monitoring and control through the SCADA control room, improving operational efficiency and reliability. Additionally, the existing distance relays installed on short 66kV lines (<5 km) have operational limitations and are over 25 years old. To address these issues, it is recommended to replace them with Line Differential Protection. This will enhance reliability, improve response time, and ensure better point to point protection for the network
6	66/11 kV Sector-52 GSS	Protection Upgradation	Relay replacement for 66kV & 11kV Incomers/Feeders at Sector-52 GSS	2026-27	0.15	0.01	0.16	0.19	To enhance protection, monitoring, and control, it is proposed to replace all electromechanical and static relays with modern numerical relays that comply with IEC 61850 standards. This upgrade will enable seamless feeder monitoring and control through the SCADA control room, improving operational efficiency and reliability. Additionally, the existing distance relays installed on short 66kV lines (<5 km) have operational limitations and are over 25 years old. To address these issues, it is recommended to replace them with Line Differential Protection. This will enhance reliability, improve response time, and ensure better point to point protection for the network
7	66/11 kV Sector-56 GSS	Protection Upgradation	Relay replacement for 66kV & 11kV Incomers/Feeders at Sector-56 GSS	2026-27	0.39	0.02	0.41	0.48	To enhance protection, monitoring, and control, it is proposed to replace all electromechanical and static relays with modern numerical relays that comply with IEC 61850 standards. This upgrade will enable seamless feeder monitoring and control through the SCADA control room, improving operational efficiency and reliability. Additionally, the existing distance relays installed on short 66kV lines (<5 km) have operational limitations and are over 25 years old. To address these issues, it is recommended to replace them with Line Differential Protection. This will enhance reliability, improve response time, and ensure better point to point protection for the network

S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
8	66/11 kV Sector-17 GSS	Protection Upgradation	Relay replacement for 66kV & 11kV Incomers/Feeders at Sector-17 GSS	2026-27	0.16	0.01	0.17	0.20	To enhance protection, monitoring, and control, it is proposed to replace all electromechanical and static relays with modern numerical relays that comply with IEC 61850 standards. This upgrade will enable seamless feeder monitoring and control through the SCADA control room, improving operational efficiency and reliability. Additionally, the existing distance relays installed on short 66kV lines (<5 km) have operational limitations and are over 25 years old. To address these issues, it is recommended to replace them with Line Differential Protection. This will enhance reliability, improve response time, and ensure better point to point protection for the network
9	66/11 kV I.T Park GSS	Protection Upgradation	66 kV and 11 kV Protection Augmentation at I.T. Park	2027-28	0.43	0.02	0.45	0.54	To enhance protection, monitoring, and control, it is proposed to replace all electromechanical and static relays with modern numerical relays that comply with IEC 61850 standards. This upgrade will enable seamless feeder monitoring and control through the SCADA control room, improving operational efficiency and reliability. Additionally, the existing distance relays installed on short 66kV lines (<5 km) have operational limitations and are over 25 years old. To address these issues, it is recommended to replace them with Line Differential Protection. This will enhance reliability, improve response time, and ensure better point to point protection for the network
10	66/11 kV Mani Majara GSS	Protection Upgradation	66 kV and 11 kV Protection Augmentation at Mani Majara	2027-28	0.38	0.02	0.40	0.47	To enhance protection, monitoring, and control, it is proposed to replace all electromechanical and static relays with modern numerical relays that comply with IEC 61850 standards. This upgrade will enable seamless feeder monitoring and control through the SCADA control room, improving operational efficiency and reliability. Additionally, the existing distance relays installed on short 66kV lines (<5 km) have operational limitations and are over 25 years old. To address these issues, it is recommended to replace them with Line Differential Protection. This will enhance reliability, improve response time, and ensure better point to point protection for the network
11	66/11 kV Industrial Area Phase-2	Protection Upgradation	Relay replacement for 66kV & 11kV Incomers/Feeders at 66/11 kV Industrial Area Phase-2	2027-28	1.43	0.07	1.50	1.78	To enhance protection, monitoring, and control, it is proposed to replace all electromechanical and static relays with modern numerical relays that comply with IEC 61850 standards. This upgrade will enable seamless feeder monitoring and control through the SCADA control room, improving operational efficiency and reliability. Additionally, the existing distance relays installed on short 66kV lines (<5 km) have operational limitations and are over 25 years old. To address these issues, it is recommended to replace them with Line Differential Protection. This will enhance reliability, improve response time, and ensure better point to point protection for the network
12	66/11 kV Sector-32 GSS	Protection Upgradation	Relay replacement for 66kV & 11kV Incomers/Feeders at 66/11 kV Sector-32 GSS	2027-28	0.25	0.03	0.28	0.31	To enhance protection, monitoring, and control, it is proposed to replace all electromechanical and static relays with modern numerical relays that comply with IEC 61850 standards. This upgrade will enable seamless feeder monitoring and control through the SCADA control room, improving operational efficiency and reliability. Additionally, the existing distance relays installed on short 66kV lines (<5 km) have operational limitations and are over 25 years old. To address these issues, it is recommended to replace them with Line Differential Protection. This will enhance reliability, improve response time, and ensure better point to point protection for the network
13	66/11 kV Sector-34 GSS	Protection Upgradation	Relay replacement for 66kV & 11kV Incomers/Feeders	2027-28	0.10	0.00	0.10	0.12	To enhance protection, monitoring, and control, it is proposed to replace all electromechanical and static relays with modern numerical relays that comply with IEC 61850 standards. This upgrade will enable seamless feeder monitoring and control through the SCADA control room, improving operational efficiency and reliability. Additionally, the existing distance relays installed on short 66kV lines (<5 km) have operational limitations and are over 25 years old. To address these issues, it is recommended to replace them with Line Differential Protection. This will enhance reliability, improve response time, and ensure better point to point protection for the network

S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
14	66/11 kV Sector-12 GSS	Protection Upgradation	Relay replacement for 66kV & 11kV Incomers/Feeders at Sector-12 GSS	2027-28	0.46	0.02	0.49	0.57	To enhance protection, monitoring, and control, it is proposed to replace all electromechanical and static relays with modern numerical relays that comply with IEC 61850 standards. This upgrade will enable seamless feeder monitoring and control through the SCADA control room, improving operational efficiency and reliability. Additionally, the existing distance relays installed on short 66kV lines (<5 km) have operational limitations and are over 25 years old. To address these issues, it is recommended to replace them with Line Differential Protection. This will enhance reliability, improve response time, and ensure better point to point protection for the network
15	66/11 kV Sector-1 GSS	PTR Upgradation	Replacement of aged 12.5MVA 66/11kV Power Transformer-2 at Sector-1 S/STN with 1no. New 20MVA PTR.	2025-26	2.70	0.47	3.16	3.73	There is 1x20MVA+1X12.5MVA PTR installed at Sector-1 GSS. Existing 12.5MVA PTR is aged more that 25 Years. To enhance reliability and capacity, it is proposed to replace the 12.5MVA PTR with a 20MVA PTR. This upgrade will not only improve the overall power supply capacity but also provide N-1 contingency at the PTR level. Given that Sector-1 GSS supplies power to a VVIP area, including critical government establishments in Chandigarh, this replacement is essential for ensuring a stable and uninterrupted power supply.
16	66/11 kV Industrial Area Phase-1	PTR Upgradation	Replacement of Damaged 66/11 kV 12.5 MVA Power Transformer-1 with new 66/11 kV 20 MVA Power Transformer.	2025-26	2.55	0.46	3.01	3.55	Existing 66/11kV 12.5MVA PTR-1 is faulty. So replacement of this PTR is proposed with new 20MVA PTR to provide redundancy and to meet future load growth.
17	66/11 kV Industrial Area Phase-2	PTR Upgradation	Replacement of damaged 66/11 kV 12.5 MVA Power Transformer-2 with new 66/11 kV 20 MVA Power Transformer.	2025-26	2.70	0.47	3.16	3.73	Existing 66/11kV 12.5MVA PTR-2 is faulty. So replacement of this PTR is proposed with 20MVA PTR to provide redundency and to meet future load growth.
18	66/11 kV Sector-32 GSS	PTR Upgradation	Replacement of Old 66/11 kV 12.5 MVA Power Transformer-1 with New 66/11 kV 20 MVA Power Transformer	2027-28	2.62	0.46	3.08	3.64	Existing 12.5MVA PTR is age old and prone to fault. So replacement of this PTR with higher capacity is proposed. This will help in providing N-1 redundancy and meeting future load growth.

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S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
19	66/11 kV Sector-34 GSS	PTR Upgradation	Replacement of old 33kV/11kV 12.5 MVA Power Transformer-2 with 1no. New 66/33/11 kV 20MVA Power Transformer along with 33kV Network Redundancy by utilizing existing 33kV circuit between Sec-52 GSS and Sec-17 GSS	2027-28	5.45	1.19	6.64	7.83	Existing 33/11kV 12.5MVA PTR is aged more than 40 Years and prone to fault. Hence, it is propose to replace this PTR with 66/33/11kV 20MVA PTR (keeping at 33/11 kV Volatge Level) in place of this PTR, which will provide N-1 redundency at PTR level in the GSS and will help in meeting future load growth. (i) Extending existing 33kV O/H feeder from Sec-52 GSS to Sec-17 GSS by tapping it at the location nearest to Sec-34 GSS and terminating the same at the latter by erecting a new 33kV bay thereat. (ii) 66kV AIS bay erection at Sec-34 GSS for establishing N-1 redundancy at 66kV level.
20	66/11 kV Sector-32 GSS	PTR Upgradation	Replacement of Old 66/11 kV 12.5 MVA Power Transformer-2 with New 66/11 kV 20 MVA Power Transformer	2028-29	2.62	0.46	3.08	3.64	Existing 12.5 MVA PTR is age old and prone to fault. So replacement of this PTR with higher capacity is proposed. This wil help in providing N-1 redundancy and meeting future load growth.
21	66/11 kV Sector-18 GSS	PTR Upgradation	Replacement of existing 3nos. 33kV/11kV Trafos. with 1no. New 66/33/11kV 20MVA (at 33kV/11kV) trafo.	2028-29	3.70	0.61	4.30	5.08	All the 33kV Network assets are overloaded, more than 40 Years Old and entire 33kV Network is is radial coniguration. So it is propsed to repace the existing 33kV Network assets to 66kV Network assets with increased capacitity to provide redundancy and meeting future load growth
22	66/11 kV Sector-12 GSS	PTR Upgradation	Replacement of existing 66kV/11kV 12.5MVA PTR-1 with 1no. New 66kV/11kV 20MVA PTR at Sector-12 GSS	2028-29	2.55	0.46	3.01	3.55	Existing 66/11kV 12.5MVA PTR is overloaded, aged more than 25 Years and prone to faults. So replacement of this PTR with 66/11kV 20MVA PTR is proposed to improve reliability and to meet future load growth.
23	66/11 kV Industrial Area Phase-1	PTR Upgradation	Replacement of old aged 66/11 kV 12.5 MVA Power Transformer-2 with new 66/11 kV 20 MVA Power Transformer.	2029-30	2.62	0.46	3.08	3.64	Existing 66/11kV 12.5MVA PTR is overloaded, aged more than 25 Years and prone to faults. So replacement of this PTR with 66/11kV 20MVA PTR is proposed to improve reliability and to meet future load growth.

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S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
24	66/11 kV Sector-52 GSS	PTR Upgradation	Replacement of Old 66/11 kV 12.5 MVA Power Transformer-1 & 2 with new 66/11 kV 20MVA Power Transformer at Sector-52 GSS	2029-30	5.70	1.43	7.13	8.41	The existing 66/11kV 12.5MVA PTR-2 is aged old and prone to faults. So it is proposed to replace this PTR with 66/11kV 20MVA PTR. This would help to achieve N-1 redundancy and meeting the future load growth.
25	66/11 kV Sector-1 GSS	Switchgear Replacement	Replacement of Age Old 66 kV Circuit Breakesr at Sector-1 GSS	2025-26	0.75	0.04	0.79	0.93	Existing 66kV CBs and other accessories are age old and prone to failure so replacement is proposed for improving power supply reliability.
26	66/11 kV Sector-34 GSS	Switchgear Replacement	Replacement of Age Old 11 kV Circuit Breakesr at Sector-34 GSS	2025-26	1.28	0.01	1.29	1.53	Existing 11kV CBs and other accessories are age old and prone to failure so replacement is proposed for improving power supply reliability..
27	66/11 kV Sector-52 GSS	Switchgear Replacement	Replacement of 66 kV age old Circuit Breakers at Sector-52 GSS	2025-26	2.75	0.14	2.89	3.41	Existing 66kV CBs and other accessories are age old and prone to failure so replacement is proposed for improving power supply reliability..
28	66/11 kV Sector-56 GSS	Switchgear Replacement	Replacement of 11 kV age old Circuit Breakers at Sector-56 GSS	2025-26	1.68	0.02	1.69	2.00	Existing 11kV CBs and other accessories are age old and prone to failure so replacement is proposed for improving power supply reliability..
29	66/11 kV Sector-37 GSS	Switchgear Replacement	Replacement of age-old 11kV Switch Gear at Sector-37 GSS	2025-26	1.19	0.01	1.20	1.41	Existing 11kV CBs and other accessories are age old and prone to failure so replacement is proposed for improving power supply reliability..
30	66/11 kV Sector-17 GSS	Switchgear Replacement	Replacement of age-old 11kV Switch Gear at Sector-17 GSS	2025-26	0.91	0.01	0.91	1.08	Existing 11kV CBs and other accessories are age old and prone to failure so replacement is proposed for improving power supply reliability..
31	66/11 kV Sector-12 GSS	Switchgear Replacement	Reviving existing 66kV Bay at Sec-12 GSS and connecting jumpers at O/D Gantry towards Sarangpur GSS to this ckt.	2025-26	0.63	0.17	0.79	0.94	The existing equipment of this bay is age old and damaged. So it is proposed to replace all the equipment of this Bay for revival. This will also support in improving the power reliability of 66/11kV Sarangpur GSS.
32	66/11 kV Sector-1 GSS	Switchgear Replacement	Replacement of Age Old 11 kV Switchgears at Sector-1 GSS	2026-27	1.17	0.01	1.18	1.39	Existing 11kV CBs and other accessories are age old and prone to failure so replacement is proposed for improving power supply reliability.
33	66/11 kV Industrial Area Phase-2	Switchgear Replacement	Replacement of old aged 11 kV Switch Gear at 66/11 kV IA Phase-2	2026-27	0.15	0.00	0.15	0.18	Existing 11kV CBs and other accessories are more than 30 year old and prone to failure so replacement is proposed for improving power supply reliability.
34	66/11 kV Sector-52 GSS	Switchgear Replacement	Replacement of 11 kV age old Circuit Breakers at Sector-52 GSS	2026-27	1.73	0.02	1.75	2.06	Existing 11kV CBs and other accessories are age old and prone to failure so replacement is proposed for improving power supply reliability..
35	66/11 kV Sector-39 GSS	Switchgear Replacement	Replacement of age-old 11 kV Switch Gear at Sector-39 GSS along with protection upgradation	2026-27	1.94	0.02	1.96	2.31	Existing 11kV CBs and other accessories are age old and prone to failure so replacement is proposed for improving power supply reliability..

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S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
36	66/11 kV Sector-12 GSS	Switchgear Replacement	Replacement of age-old 66kV Switch Gears at Sector-12 GSS	2026-27	1.00	0.05	1.05	1.24	Existing 66kV CBs and other accessories are age old and prone to failure so replacement is proposed for improving power supply reliability..
37	66/11 kV Sector-32 GSS	Switchgear Replacement	Replacement of Age Old 11 kV Circuit Breaker at Sector-32 GSS	2027-28	1.51	0.02	1.52	1.79	Existing 11kV CBs and other accessories are age old and prone to failure so replacement is proposed for improving power supply reliability..
38	66/11 kV Sector-18 GSS	Switchgear Replacement	Replacement of age-old 11kV Switch Gear at Sector-18 GSS	2027-28	2.44	0.04	2.48	2.93	Existing 11kV CBs and other accessories are age old and prone to failure so replacement is proposed for improving power supply reliability..
39	66/11 kV Sector-56 GSS	Switchgear Replacement	Replacement of 66 kV age old Circuit Breakers at Sector-56 GSS	2028-29	0.25	0.01	0.26	0.31	Existing 66kV CBs and other accessories are age old and prone to failure so replacement is proposed for improving power supply reliability..
40	66/11 kV Sector-12 GSS	Switchgear Replacement	Replacement of age-old 11kV Switch Gears at Sector-12 GSS	2028-29	1.57	0.02	1.58	1.87	Existing 11kV CBs and other accessories are age old and prone to failure so replacement is proposed for improving power supply reliability..
41	66/11 kV Sector-39 GSS	Switchgear Replacement	Replacement of age-old 66 kV Switch Gear at Sector-39 GSS along with protection upgradation	2029-30	2.09	0.10	2.20	2.59	Existing 66kV CBs and other accessories are age old and prone to failure so replacement is proposed for improving power supply reliability..
42	66/11 kV Sector-37 GSS	33 kV to 66 kV Conversion	Conversion of 33/11 kV Bay of Sector-37 GSS into 66/11 kV GSS with capacity upgradation along with replacement of 2nos. Age-old and overloaded 33/11 kV trafos. (1x10MVA + 1x6MVA) by 2nos. New 66kV/11kV 20MVA trafos.	2026-27	5.53	0.59	6.13	7.23	Both the existing transformers are derated from ageing (cum. 16MVA) and in order to relieve overloading of adjoining GSS and provide redundancy, installation of 2x20MVA new 66kV/11kV transformers is proposed. The existing 33kV network assets are over 40 years old, heavily overloaded, and operate in a radial configuration, limiting reliability and redundancy. To address these challenges, it is proposed to upgrade the entire 33kV network to 66kV with increased capacity. This transition will not only enhance system reliability and provide redundancy but also accommodate future load growth, ensuring more robust and efficient power supply network.
43	66/11 kV Sector-17 GSS	33 kV to 66 kV Conversion	Conversion of 33/11 kV Bay of Sector-17 GSS into 66/11 kV GSS with capacity upgradation along with replacement of aged 12.5MVA 33kV/11kV T-1 with 1no. New 20MVA 66kV/11kV trafo.	2026-27	4.09	0.34	4.43	5.23	All the 33kV Network assets are overloaded, more than 40 Years Old and entire 33kV Network is is radial coniguration. So it is propsed to repace the existing 33kV Network assets to 66kV Network assets with increased capacitity to provide redundancy and meeting future load growth. Existing 12.5MVA T-1 is 40years old and in order to relieve overloading of adjoining GSS and provide redundancy, installation of 1x20MVA new 66kV/11kV transformer is proposed.
44	66/11 kV Sector-37 GSS	33 kV to 66 kV Conversion	Conversion of 33/11 kV Bay of Sector-37 GSS into 66/11 kV GSS with capacity upgradation along with replacement of 2nos. Age-old and overloaded 33/11 kV trafos. (1x10MVA + 1x6MVA) by 2nos. New 66kV/11kV 20MVA trafos.	2027-28	5.53	0.59	6.13	7.23	Both the existing transformers are derated from ageing (cum. 16MVA) and in order to relieve overloading of adjoining GSS and provide redundancy, installation of 2x20MVA new 66kV/11kV transformers is proposed. The existing 33kV network assets are over 40 years old, heavily overloaded, and operate in a radial configuration, limiting reliability and redundancy. To address these challenges, it is proposed to upgrade the entire 33kV network to 66kV with increased capacity. This transition will not only enhance system reliability and provide redundancy but also accommodate future load growth, ensuring more robust and efficient power supply network.

S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
45	66/11 kV Sector-17 GSS	33 kV to 66 kV Conversion	Conversion of 33/11 kV Bay of Sector-17 GSS into 66/11 kV GSS with capacity upgradation along with replacement of aged 12.5MVA 33kV/11kV T-1 with 1no. New 20MVA 66kV/11kV trafo.	2027-28	4.09	0.34	4.43	5.23	All the 33kV Network assets are overloaded, more than 40 Years Old and entire 33kV Network is is radial coniguration. So it is propsed to repace the existing 33kV Network assets to 66kV Network assets with increased capacitity to provide redundancy and meeting future load growth. Existing 12.5MVA T-1 is 40years old and in order to relieve overloading of adjoining GSS and provide redundancy, installation of 1x20MVA new 66kV/11kV transformer is proposed.
46	33/11kV Industrial Area Phase-1	33 kV to 66 kV Conversion	Conversion of 33/11 kV Industrial Area Phase-1 S/STN into 66/11 kV S/STN with capacity upgradation including relocation of two existing 12.5MVA 66kV/11kV trafos. (from Sec-1 GSS & Sec-32 GSS)	2027-28	4.31	0.50	4.81	5.68	The existing 33kV network assets are over 40 years old, heavily overloaded, and operate in a radial configuration, limiting reliability and redundancy. To address these challenges, it is proposed to upgrade the entire 33kV network to 66kV with increased capacity. This transition will not only enhance system reliability and provide redundancy but also accommodate future load growth, ensuring more robust and efficient power supply network.
47	33/11kV Industrial Area Phase-1	33 kV to 66 kV Conversion	Conversion of 33/11 kV Industrial Area Phase-1 S/STN into 66/11 kV S/STN with capacity upgradation including relocation of two existing 12.5MVA 66kV/11kV trafos. (from Sec-1 GSS & Sec-32 GSS)	2028-29	2.87	0.34	3.21	3.79	The existing 33kV network assets are over 40 years old, heavily overloaded, and operate in a radial configuration, limiting reliability and redundancy. To address these challenges, it is proposed to upgrade the entire 33kV network to 66kV with increased capacity. This transition will not only enhance system reliability and provide redundancy but also accommodate future load growth, ensuring more robust and efficient power supply network.

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Annexure 4: Detailed scheme-wise justification of 11 KV and LT schemes under Operational Reliability and Loss Reduction

S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
1	Division-2	LT distribution box	Replacement of existing LT (Jungle) Fuse unit with LT ACB of 315/300 KVA P/M T/Fs under the Electy. OP Sub Division No. 5, Chandigarh.	2026-27	1.23	0.17	1.40	1.65	Existing junglee fuse units are defunct and bypassed. So replacement of the Junglee Fuse Units with Transformer Feeder Pillars are proposed to provided protection and switching provision on the LT side of transformers.
2	Division-2	LT distribution box	Rough Cost estimate for providing ACB/MCCB on existing P/M T/Fs by replacing existing LT jungle fuse unit to adhere with safety rules and regulation covered under electricity Rules and for ensuring safety of general public under electricity " Su/Din No. 8, Manimajra, UT, Chandigarh	2026-27	0.15	0.02	0.17	0.20	Transformer feeder pillar for Isolation of faulty section and to carry out preventive and breakdown maintenance, bifurcation of Single LT into two Circuit
3	Division-4	LT distribution box	Providing LT ACB as well as LT Shunt Capacitor on existing 300/315 kVA T/F under CPDL, Electy (OP) Sub Division No. 09, Sector-43 Chandigarh.	2027-28	2.07	0.54	2.60	3.07	For replacing existing jungly fuse unit of P/M T/F of Subdivision -09
4	Division-4	LT distribution box	Providing LT ACB as well as LT Shunt capacitor on 300/315 KVA P/M T/F by replacing the existing Jungli Fuse unit under the juridiction of CPDL, Electy (OP) Sub Division No. 10, Sector-40B Chandigarh.	2027-28	1.05	0.27	1.32	1.55	For replacing existing jungly fuse unit of P/M T/F of Subdivision -10
5	Division-1	LT distribution box	Providing LT ACB as well as LT shunt capacitor on 315/300 KVA P/M T/F under the jurisdiction of Electy OP S/Divn. No. 1, Sector 23-D, Chandigarh.	2027-28	0.57	0.20	0.77	0.91	To remove the old outdated obselete machinery posing danger to the staff as well as public is required to be replaced with new one of latest technology having broader features.
6	Division-1	LT distribution box	Providing LT ACBs as LT Shunt Capacitor on 300/315 KVA Pole Mounting Distribution Transformers existing under the area of Jurisdiction of Electy OP S/Divn No 2 Sector-10 Chandigarh	2027-28	0.85	0.26	1.11	1.31	To remove the old outdated obselete machinery posing danger to the staff as well as public is required to be replaced with new one of latest technology having broader features.
7	Division-1	LT distribution box	Providing LT ACB as well as LT shunt capacitor on 300/315 KVA P/M T/F under the jurisdiction of Electy OP S/Divn. No. 4, Sector 15-C, Chandigarh.	2027-28	0.59	0.20	0.78	0.93	To remove the old outdated obselete machinery posing danger to the staff as well as public is required to be replaced with new one of latest technology having broader features.
8	Division-1	LT distribution box	Providing LT MCCB on 63/100/200 KVA T/Fs as well as LT Shunt Capacitor under the jurisdiction of Electy. 'OP' S/Divn NO. 1,2 &4 MCCB 30 Nos.	2027-28	0.51	0.26	0.77	0.91	To remove the old outdated obselete machinery posing danger to the staff as well as public is required to be replaced with new one of latest technology having broader features.
9	Division-2	Fencing	Providing Fencing around the Distribution transformer located in Highly dense populated area of In manimajra to Enhance electrical safety	2025-26	-	0.14	0.14	0.16	Dt fencing to enhance safety in highly populated area
10	Division-2	Fencing	Providing Fencing around the Distribution transformer located in Highly dense populated area in Industrial area phase -01 & Phase-02 to Enhance electrical safety	2025-26	-	0.17	0.17	0.20	Dt fencing to enhance safety in highly populated area
11	Division-3	Fencing	Providing installation of wire mesh fencing around the area of P/M T/Fs under the jurisdiction of S/D No. 3, 6 and 7 Chd. Detail of P/M T/Fs S/D No. 3 = 25 S/D No. 6 = 20 S/D No. 7 = 15	2025-26	-	0.25	0.25	0.29	To enhance public safety and prevent unauthorized access, the installation of protective fencing is proposed around pole-mounted transformers (P/M T/Fs) situated in densely populated and otherwise vulnerable locations. This measure aims to mitigate the risks associated with accidental contact with energized equipment, potential vandalism, and unauthorized tampering, thereby ensuring the safety of the public and the integrity of the electrical infrastructure
12	Division-3	Fencing	Providing installation of wire fencing Mesh around the area of P/M T/Fs under the jurisdiction of S/D No. 3, 6 and 7 Chd. Detail of P/M T/Fs S/D No. 3 = 20 S/D No. 6 = 20 S/D No. 7 = 15	2025-26	-	0.18	0.18	0.21	To enhance public safety and prevent unauthorized access, the installation of protective fencing is proposed around pole-mounted transformers (P/M T/Fs) situated in densely populated and otherwise vulnerable locations. This measure aims to mitigate the risks associated with accidental contact with energized equipment, potential vandalism, and unauthorized tampering, thereby ensuring the safety of the public and the integrity of the electrical infrastructure
13	Division-3	Fencing	Providing installation of wire fencing Mesh around the area of P/M T/Fs under the jurisdiction of S/D No. 3,6and 7 Chd. Detail of P/M T/Fs S/D No. 3 = 15 S/D No. 6 = 18 S/D No. 7 = 10	2025-26	-	0.06	0.06	0.07	To enhance public safety and prevent unauthorized access, the installation of protective fencing is proposed around pole-mounted transformers (P/M T/Fs) situated in densely populated and otherwise vulnerable locations. This measure aims to mitigate the risks associated with accidental contact with energized equipment, potential vandalism, and unauthorized tampering, thereby ensuring the safety of the public and the integrity of the electrical infrastructure
14	Division-2	Fencing	Providing Fencing around the Distribution transformer located in Highly dense populated area of In manimajra to Enhance electrical safety	2026-27	-	0.14	0.14	0.16	Dt fencing to enhance safety in highly populated area
15	Division-2	Fencing	Providing Fencing around the Distribution transformer located in Highly dense populate	2026-27	-	0.18	0.18	0.21	Dt fencing to enhance safety in highly populated area
16	Division-2	Fencing	Providing Fencing around the Distribution transformer located in Highly dense populated area in Industrial area phase -01 & Phase-02 to Enhance electrical safety	2027-28	-	0.15	0.15	0.17	Dt fencing to enhance safety in highly populated area
17	Division-2	Fencing	Providing Fencing around the Distribution transformer located in Highly dense populated area in Industrial area phase -01 & Phase-02 to Enhance electrical safety	2028-29	-	0.16	0.16	0.19	Dt fencing to enhance safety in highly populated area
18	Division-4	RMU	New RMU Installation for 11kV connection and tapping of transformer and T-Off in various loaction of sub division 9 & 10	2026-27	0.74	0.04	0.78	0.92	For providing tapping of transformers and T-off points in various locvations for reliability and ring conectivity
19	Division-1	RMU	Providing 20 nos of RMUs of 630 Amp. Rating 3 way type on 11 KV feeders and ring main sources eminating from respective 66/33 GSS and to further improve the system efficiency. (Site: - On point of T-off and duplicate supply on existing structures to regulate effectively RMUs will serve the purpose) Location: - Total No. of 11 KV feeders Total 87) S/D No. 1 = 15 (4 nos of RMU Proposed in S/D no.1) S/D No. 2 = 29 (8 nos of RMU Proposed in S/D no.2) S/D No. 4 = 43 (8 nos of RMU Proposed in S/D no.4) (Proposal @ 20)	2026-27	1.00	0.13	1.13	1.33	With the advent of the new technology RMUs have completely replaced GO switches, OCBs, VCBs from the GSS the reason is that RMUs are robust rugged and very simple electrical controlling switches free from any kind of maintenance. By virtue of providing RMUs the efficiency of the system will be improved to five nines.

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S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
20	Division-3	RMU	Providing 15 nos of RMUs of 630 Amp. Rating 3 way type on 11 KV feeders and ring main sources eminating from respective 66/33 GSS and to further improve the system efficiency. (Site: - On point of T-off and duplicate supply on existing structures to regulate effectively RMUs will serve the purpose) Location: - Total No. of 11 KV feeders (Total 69) S/D No. 3 = 18 (3 nos of RMU Proposed in S/D no.1) S/D No. 6 = 21 (3 nos of RMU Proposed in S/D no.2) S/D No. 7 = 30 (9 nos of RMU Proposed in S/D no.4) (Proposal @ 15)	2026-27	0.75	0.09	0.85	1.00	With the advent of the new technology RMUs have completely replaced GO switches, OCBs, VCBs from the GSS the reason is that RMUs are robust rugged and very simple electrical controlling switches free from any kind of maintenance. By virtue of providing RMUs the efficiency of the system will be improved to five nines.
21	Division-4	RMU	New RMU Installation for 11kV connection and tapping of transformer and T-Off in various loaction of sub division 9 & 10	2027-28	1.70	0.09	1.79	2.12	For providing tapping of transformers and T-off points in various locvations for reliability and ring conectivity
22	Division-4	RMU	New RMU Installation for 11kV connection and tapping of transformer and T-Off in various loaction of sub division 9 & 10	2027-28	0.51	0.03	0.54	0.64	For providing tapping of transformers and T-off points in various locvations for reliability and ring conectivity
23	Division-1	RMU	Providing 15 nos of RMUs of 630 Amp. Rating 3 way type on 11 KV feeders and ring main sources eminating from respective 66/33 GSS and to further improve the system efficiency. (Site: - On point of T-off and duplicate supply on existing structures to regulate effectively RMUs will serve the purpose) Location: - Total No. of 11 KV feeders (Total 87) S/D No. 1 = 15 (3 nos of RMU Proposed in S/D no.1) S/D No. 2 = 29 (6 nos of RMU Proposed in S/D no.2) S/D No. 4 = 43 (6nos of RMU Proposed in S/D no.4) (Proposal @ 15)	2027-28	0.75	0.09	0.85	1.00	With the advent of the new technology RMUs have completely replaced GO switches, OCBs, VCBs from the GSS the reason is that RMUs are robust rugged and very simple electrical controlling switches free from any kind of maintenance. By virtue of providing RMUs the efficiency of the system will be improved to five nines.
24	Division-3	RMU	Providing 15 nos of RMUs of 630 Amp. Rating 3 way type on 11 KV feeders and ring main sources eminating from respective 66/33 GSS and to further improve the system efficiency. (Site: - On point of T-off and duplicate supply on existing structures to regulate effectively RMUs will serve the purpose) Location: - Total No. of 11 KV feeders (Total 69) S/D No. 3 = 18 (3 nos of RMU Proposed in S/D no.1) S/D No. 6 = 21 (3 nos of RMU Proposed in S/D no.2) S/D No. 7 = 30 (9 nos of RMU Proposed in S/D no.4) (Proposal @ 15)	2027-28	0.75	0.09	0.85	1.00	With the advent of the new technology RMUs have completely replaced GO switches, OCBs, VCBs from the GSS the reason is that RMUs are robust rugged and very simple electrical controlling switches free from any kind of maintenance. By virtue of providing RMUs the efficiency of the system will be improved to five nines.
25	Division-4	RMU	New RMU Installation for 11kV connection and tapping of transformer and T-Off in various loaction of sub division 9 & 10	2028-29	1.02	0.06	1.08	1.27	For providing tapping of transformers and T-off points in various locvations for reliability and ring conectivity
26	Division-1	RMU	Providing 20 nos of RMUs of 630 Amp. Rating 3 way type on 11 KV feeders and ring main sources eminating from respective 66/33 GSS and to further improve the system efficiency. (Site: - On point of T-off and duplicate supply on existing structures to regulate effectively RMUs will serve the purpose) Location: - Total No. of 11 KV feeders (Total 87 Feeders) S/D No. 1 = 15 (4 Nos of RMU Proposed in S/D no.1) S/D No. 2 = 29 (8 Nos of RMU Proposed in S/D no.2) S/D No. 4 = 43 (8 Nos of RMU Proposed in S/D no.4) (Proposal @ 20 Nos of RMU Proposed in Div no. 1)	2028-29	1.00	0.13	1.13	1.33	With the advent of the new technology RMUs have completely replaced GO switches, OCBs, VCBs from the GSS the reason is that RMUs are robust rugged and very simple electrical controlling switches free from any kind of maintenance. By virtue of providing RMUs the efficiency of the system will be improved to five nines.
27	Division-1	RMU	Providing 15 nos of RMUs of 630 Amp. Rating 3 way type on 11 KV feeders and ring main sources eminating from respective 66/33 GSS and to further improve the system efficiency. (Site: - On point of T-off and duplicate supply on existing structures to regulate effectively RMUs will serve the purpose) Location: - Total No. of 11 KV feeders (Total 87) S/D No. 1 = 15 (3 nos of RMU Proposed in S/D no.1) S/D No. 2 = 29 (6 nos of RMU Proposed in S/D no.2) S/D No. 4 = 43 (6 nos of RMU Proposed in S/D no.4) (Proposal @ 15)	2028-29	0.75	0.09	0.85	1.00	With the advent of the new technology RMUs have completely replaced GO switches, OCBs, VCBs from the GSS the reason is that RMUs are robust rugged and very simple electrical controlling switches free from any kind of maintenance. By virtue of providing RMUs the efficiency of the system will be improved to five nines.
28	Division-3	RMU	Providing 15 nos of RMUs of 630 Amp. Rating 3 way type on 11 KV feeders and ring main sources eminating from respective 66/33 GSS and to further improve the system efficiency. (Site: - On point of T-off and duplicate supply on existing structures to regulate effectively RMUs will serve the purpose) Location: - Total No. of 11 KV feeders (Total 69) S/D No. 3 = 18 (3 nos of RMU Proposed in S/D no.1) S/D No. 6 = 21 (3 nos of RMU Proposed in S/D no.2) S/D No. 7 = 30 (9 nos of RMU Proposed in S/D no.4) (Proposal @ 15)	2028-29	0.40	0.05	0.45	0.53	With the advent of the new technology RMUs have completely replaced GO switches, OCBs, VCBs from the GSS the reason is that RMUs are robust rugged and very simple electrical controlling switches free from any kind of maintenance. By virtue of providing RMUs the efficiency of the system will be improved to five nines.
29	Division-4	RMU	New RMU Installation for 11kV connection and tapping of transformer and T-Off in various loaction of sub division 9 & 10	2029-30	0.93	0.05	0.98	1.16	For providing tapping of transformers and T-off points in various locvations for reliability and ring conectivity
30	Division-1	RMU	Providing 17 nos. of RMUs of 630 Amp. Rating 3 way type on 11 KV feeders and ring main sources eminating from respective 66/33 GSS and to further improve the system efficiency. (Site: - On point of T-off and duplicate supply on existing structures to regulate effectively RMUs will serve the purpose) Location: - Total No. of 11 KV feeders (Total 87) S/D No. 1 = 15 (1 nos of RMU Proposed in S/D no.1) S/D No. 2 = 29 (1 nos of RMU Proposed in S/D no.2) S/D No. 4 = 43 (15 nos of RMU Proposed in S/D no.4) (Proposal @ 17)	2029-30	0.85	0.11	0.96	1.13	With the advent of the new technology RMUs have completely replaced GO switches, OCBs, VCBs from the GSS the reason is that RMUs are robust rugged and very simple electrical controlling switches free from any kind of maintenance. By virtue of providing RMUs the efficiency of the system will be improved to five nines.
31	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main at Samadhi gate at Manimajra	2025-26	0.50	0.13	0.63	0.74	To be used to Replace the Existing LT Bare Overhead with Armoured Cable

S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
32	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main back side police station and 315 KVA T/F near Fozi Dhaba for improvement of LD system under electricity "OP" S/Div. No. 8, Manimajra, Chandigarh.	2025-26	0.13	0.05	0.17	0.20	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
33	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Ba	2025-26	0.36	0.14	0.50	0.59	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
34	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main at Faida village	2025-26	0.27	0.10	0.37	0.44	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
35	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main at Charan singh colony, Manimajara	2025-26	0.32	0.12	0.43	0.51	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
36	Division-4	Replacement of Theft prone conductors	Replacement of outlived, overheated, burnt, LT ACSR 0.75 sq inch with LT 4X95 Sq mm of Sector 45 & village Burail at different locations for the improvement of LD system under CPDL, Electy (OP) Sub Division No. 09, Sector-43 Chandigarh	2025-26	0.36	0.29	0.66	0.77	Replacement of old outlived undersized burnt conductor due to ageing for maintain supply reliability
37	Division-4	Replacement of Theft prone conductors	Reorgnization of LT network at Village Malloya to prevent the ongoing theft and ensure safety under the jurisdiction of Electy.'OP' Sub Division No. 10, UT, Chandigarh	2025-26	0.77	0.12	0.89	1.05	Replacement LT armoured cable along with MS junction boxes o prevent theft and ensure safety in Rural area
38	Division-4	Replacement of Theft prone conductors	Reorgnization of LT network at Village Daddu Majra to prevent the ongoing theft and ensure safety under the jurisdiction of Electy.'OP' Sub Division No. 10, UT, Chandigarh	2025-26	0.21	0.30	0.50	0.59	Replacement LT armoured cable along with MS junction boxes o prevent theft and ensure safety in Rural area
39	Division-4	Replacement of Theft prone conductors	Reorgnization of LT Main by replacing Existing Bare Lt overhead line with 4cx95 Sqmm cable to reduce the T& D losses in Daddu Majra Colony	2025-26	0.69	0.09	0.79	0.93	To be used to Replace the Existing LT Bare Overhead with Armoured Cable to prevent theft and ensure safety
40	Division-4	Replacement of Theft prone conductors	Reorgnization of LT Main by replacing Existing Bare Lt overhead line with 4cx95 Sqmm cable to reduce the T& D losses in village Burail Sector-45	2025-26	0.23	0.04	0.28	0.33	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
41	Division-4	Replacement of Theft prone conductors	Reorgnization of LT Main by replacing Existing Bare Lt overhead line with 4cx95 Sqmm cable to reduce the T& D losses in village Kirshan Colony sec-52	2025-26	2.17	0.43	2.59	3.06	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
42	Division-4	Reducing theft prone activties	Erection of 9/10/11 meter pcc/STP pole to reduce the span length and strengthning of exisitng overhead network of various feeders under the juridriction of Division -04, CPDL	2025-26	0.13	0.05	0.18	0.21	For shortening the span length of existing OH lines and strenghening the overhead network
43	Division-1	Replacement of Theft prone conductors	Laying of Armour Cable in LT system village of Khuda Alisher, Chandigarh	2025-26	0.58	0.22	0.80	0.95	The existing LT network at Khuda alisher is running with bare conductor which is theft prone & easily accessible. In order to cop up with the problem new armour cables of appropriate sizes have been proposed which will help to restrict theft and loss of supply.
44	Division-1	Replacement of Theft prone conductors	Laying of Armour Cable in LT system of village Khaimbwala, Chandigarh	2025-26	0.37	0.09	0.46	0.54	The existing LT network at Kaimbwala is running with bare conductor which is theft prone & easily accessible. In order to cop up with the problem new armour cables of appropriate sizes have been proposed which will help to restrict theft and loss of supply.
45	Division-1	Replacement of Theft prone conductors	Laying of Armour Cable in LT system village Dhanas, Milk Colony Chandigarh	2025-26	1.21	0.20	1.42	1.67	The marble market and Milk colony in village Dhanas is a area which is prone to the theft. The marble market in village dhanas has occupied larger area and is accompaonied by unauthorised labour colony at the back and on and off. The people of the labourer colony are indulging in extraction of the power supply through unfair means . This fact is resulting in attributing the power losses to the organisation. In order to remove the prevailing problem and to reduce the line losses the schemes has been prepared which is comprising of removing the existing ACSR and provding the power supply the 4x95SQMM armour cable having further provision of the distribution boxes made uo of metal boxes and poycarbonate having arrangement of three phase busbar from where incoming and outgoing service cables has a distinguish arreangement in a hassle free manner.
46	Division-1	Replacement of Theft prone conductors	Laying of Armour Cable in LT system in Rehabilitation Colony Sector 25, Chandigarh	2025-26	1.49	0.35	1.84	2.17	Reduction in the line losses is on the top agenda of the CPDL Administration. In order to initiate the action for achieving the target the area prone to the theft through unfair means is Sector 25, Rehabilitation Colony. In the proposal the bare conductor will be removed and the power supply to the respective houses will be maintained by providing armoured cable of size 3.5 core x 95 mm2 which will direcily run from the DTR and will be further erected on the PCC poles at a sufficient height from ground and the distribution system will be provided through the SMC/Metal boxes having arrangement to in house one incoming cable and outgoing services in a hassle free manner. The above arrangement will permanently eradicate the chances of appearance of any kind of kundi along with playing unfair means.
47	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main at Pipliwala town at Manimajra	2026-27	0.59	0.16	0.75	0.89	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
48	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main at madiwala town at Manimajra	2026-27	0.59	0.16	0.75	0.89	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
49	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main Gobindpura and near community centre under the electricity "OP" S/Div. No. 8, Manimajra, Chandigarh.	2026-27	0.14	0.05	0.19	0.22	To be used to Replace the Existing LT Bare Overhead with Armoured Cable

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S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
50	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main at Mauli complex	2026-27	0.36	0.14	0.50	0.59	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
51	Division-2	Reducing theft prone activties	Erection of 9/10/11 meter pcc/STP pole to reduce the span length and strengthening of existing overhead network of various feeders under the jurisdiction of Division -02, CPDL	2026-27	0.02	0.01	0.03	0.04	Replacement of damaged, Cracked, Rusted Pole
52	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main at Raipur khurd	2026-27	0.23	0.08	0.31	0.37	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
53	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main at Halo majra	2026-27	0.27	0.10	0.37	0.44	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
54	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main at Daria village	2026-27	0.27	0.10	0.37	0.44	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
55	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main at Behlana village	2026-27	0.27	0.10	0.37	0.44	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
56	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main at Ramdarbar colony	2026-27	0.32	0.12	0.43	0.51	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
57	Division-4	Replacement of Theft prone conductors	Reorgnization of LT Main by replacing Existing Bare Lt overhead line with 4cx95 Sqmm cable to reduce the T& D losses in village Kajheri	2026-27	0.20	0.04	0.24	0.28	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
58	Division-4	Replacement of Theft prone conductors	Reorgnization of LT Main by replacing Existing Bare Lt overhead line with 4cx95 Sqmm cable to reduce the T& D losses in village Attawa & Badhehri	2026-27	1.13	0.20	1.33	1.57	To be used to Replace the Existing LT Bare Overhead with Armoured Cable to prevent theft and ensure safety
59	Division-4	Reducing theft prone activties	Erection of 9/10/11 meter pcc/STP pole to reduce the span length and strengthning of exisitng overhead network of various feeders under the juridriction of Division -04, CPDL	2026-27	0.03	0.01	0.04	0.05	For shortening the span length of existing OH lines and strenghening the overhead network
60	Division-1	Replacement of Theft prone conductors	Laying of Armour Cable in LT system Bapu Dham colony Sector 26, Chandigarh	2026-27	1.41	0.34	1.75	2.06	Reduction in the line losses is on the top agenda of the CPDL Administration. In order to initiate the action for achieving the target the area prone to the theft through unfair means is Sector 26, Bapu Dham Colony. In the proposal the bare conductor will be removed and the power supply to the respective houses will be maintained by providing armoured cable of size 3.5 core x 95 mm2 which will directly run from the DTR and will be further erected on the PCC poles at a sufficient height from ground and the distribution system will be provided through the SMC/Metal boxes having arrangement to in house one incoming cable and outgoing services in a hassle free manner. The above arrangement will permanently eradicate the chances of appearance of any kind of kundi along with playing unfair means.
61	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main at Industrial belt of industrial area phase-01, CHD.	2027-28	0.53	0.38	0.91	1.08	Replacement of existing LT O/H Bare Conductor with armoured cable is proposed for loss reduction and safety.
62	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main at 300 KVA T/F near Govt School, 300 KVA T/F Maruwala, 200 KVA T/F Welding wala at village Kishangarh for improvement of LD system under Electy. 'OP' S/Divn.No.8, Manimajra, U.T., Chandigarh.	2027-28	1.00	0.28	1.28	1.51	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
63	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main at Samadhi gate at Manimajra	2027-28	0.27	0.10	0.37	0.44	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
64	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main at mauli village	2027-28	0.27	0.10	0.37	0.44	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
65	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main at Vikas nagar	2027-28	0.54	0.20	0.74	0.88	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
66	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Ba	2027-28	0.27	0.10	0.37	0.44	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
67	Division-2	Reducing theft prone activties	Erection of 9/10/11 meter pcc/STP pole to reduce the span length and strengthening of existing overhead network of various feeders under the jurisdiction of Division -02, CPDL	2027-28	0.02	0.01	0.03	0.04	Replacement of damaged, Cracked, Rusted Pole
68	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main at Raipur Kalan	2027-28	0.23	0.08	0.31	0.37	To be used to Replace the Existing LT Bare Overhead with Armoured Cable

S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
69	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main at Makhan majra	2027-28	0.27	0.10	0.37	0.44	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
70	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main at Bank colony Mani majra	2027-28	0.18	0.07	0.25	0.29	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
71	Division-2	Replacement of Theft prone conductors	Erection of 4cx300sqmm and 4cx95sqmm cable for replacement of existing Bare conductor overhead LT line to reduce the losses, reliability improvement, make the network safe and to eliminate the possibilities of electricity theft form LT main at Subhas Nagar, Manimajara	2027-28	0.23	0.08	0.31	0.37	To be used to Replace the Existing LT Bare Overhead with Armoured Cable
72	Division-4	Reducing theft prone activties	Erection of 9/10/11 meter pcc/STP pole to reduce the span length and strengthning of exisitng overhead network of various feeders under the juridriction of Division -04, CPDL	2027-28	0.03	0.01	0.04	0.05	For shortening the span length of existing OH lines and strenghening the overhead network
73	Division-2	Reducing theft prone activties	Erection of 9/10/11 meter pcc/STP pole to reduce the span length and strengthening of existing overhead network of various feeders under the jurisdiction of Division -02, CPDL	2028-29	0.02	0.01	0.03	0.04	Replacement of damaged, Cracked, Rusted Pole
74	Division-2	Reducing theft prone activties	Erection of 9/10/11 meter pcc/STP pole to reduce the span length and strengthening of existing overhead network of various feeders under the jurisdiction of Division -02, CPDL	2028-29	0.02	0.01	0.03	0.03	Replacement of damaged, Cracked, Rusted Pole
75	Division-4	Reducing theft prone activties	Providing LT MCCB on 25/63/100/200 KVA T/Fs as well as LT Shunt Capacitor under the jurisdiction of CPDL, Electy (OP) Sub Division No. 09, Sector-43 & (OP) Sub Division No. 10, Chandigarh.	2028-29	0.16	0.09	0.26	0.30	For replacing existing jungly fuse unit of P/M T/F of Subdivision -09
76	Division-4	Reducing theft prone activties	Providing LT MCCB on 25/63/100/200 KVA P/M T/F as well as LT Shunt capacitor under the juridiction of CPDL, Electy (OP) Sub Division No. 10 Chandigarh.	2028-29	0.11	0.08	0.19	0.23	For replacing existing jungly fuse unit of P/M T/F of Subdivision -10
77	Division-2	Reducing theft prone activties	Erection of 9/10/11 meter pcc/STP pole to reduce the span length and strengthening of existing overhead network of various feeders under the jurisdiction of Division -02, CPDL	2029-30	0.03	0.01	0.03	0.04	Replacement of damaged, Cracked, Rusted Pole
78	Division-2	Switchgear Replacement	Estimate for replacement existing 11 KV VCB and LT ACBs at 11 KV Indoor Sub Station Shanti Bhawan, Plot No. 41, Industrial Area, Ph-1, Chandigarh, under the jurisdiction of Electy. 'OP' S/D No.5, Chandigarh.	2025-26	0.08	0.01	0.08	0.10	Replacement of VCB with 3 Way RMU
79	Division-2	Switchgear Replacement	Estimate for replacement existing 11 KV VCB and LT ACBs at 11 KV Indoor Sub Station Fire Brigade, Industrial Area, Ph-1, Chandigarh, under the jurisdiction of Electy. 'OP' S/D No.5, Chandigarh.	2025-26	0.11	0.01	0.13	0.15	Replacement of VCB with 4 Way RMU
80	Division-4	Switchgear Replacement	Replacement & Augmentation of existing old, outlived and defective HT OCBs/ACBs in I/D Sub-station of various location under Electy (OP) Sub Division No. 10, Sector-40 Chandigarh	2025-26	1.08	0.05	1.13	1.34	To replace existing old, outlived and defective HT/LT OCBs/ACBs in I/D Sub-station of various location to maintain relaibility of power and providing ring connectivity under Electy (OP) Sub Division No. 09, Sector-43 Chandigarh
81	Division-1	Switchgear Replacement	Replacement of existing LT Panel Board indoor (1x1600 A Incoming + 5x630 Amp MCCB Outgoing) (8nos Substations:- Sec 14, PU, Admin blockSector 17 E, Shopping CenterSEC 26 Chandigarh Polytechnic College(CPC)11/.4kv SEC 17C PSIDCHaryana VidhansabhaHaryana Civil secreterateSec 16A G.M.S.HSec -12, PGI Command , Gate no2)	2025-26	0.54	0.07	0.61	0.71	To remove the old outdated obselete machinery posing danger to the staff as well as public is required to be replaced with new one of latest technology having broader features.
82	Division-2	Switchgear Replacement	Estimate for replacement of existing 11 KV VCB and LT ACBs at 11 KV Indoor Sub Near Plot No.342 & 434, I/A, Ph.-II, Chandigarh, under the jurisdiction of Electy. 'OP' S/D No.5, Chandigarh.	2026-27	0.14	0.01	0.15	0.18	Replacement of VCB with 4 Way RMU
83	Division-2	Switchgear Replacement	Estimate for replacement of existing 11 KV OCB/VCB and LT ACBs at 11 KV Indoor MHC, Chandigarh along with , under the jurisdiction of Electy. 'OP' S/D No.5, Chandigarh.	2026-27	0.14	0.05	0.19	0.22	Ring connectivity between Shastri and MHC feeder for load changeover, Complaint handling and elimination of entire feeder shutdown during breakdown and preventive maintenance
84	Division-4	Switchgear Replacement	Replacement & Augmentation of existing old, outlived and defective HT OCBs/ACBs in I/D Sub-station of various location under Electy (OP) Sub Division No. 09, Sector-43 Chandigarh	2026-27	2.09	0.21	2.30	2.72	To replace existing old, outlived and defective HT/LT OCBs/ACBs in I/D Sub-station of various location to maintain relaibility of power and providing ring connectivity under Electy (OP) Sub Division No. 09, Sector-43 Chandigarh
85	Division-4	Switchgear Replacement	Replacement & Augmentation of existing old, outlived and defective HT/LT OCBs/ACBs in I/D Sub-station of various location under Electy (OP) Sub Division No. 10, Sector-40 Chandigarh	2026-27	0.29	0.01	0.31	0.36	To replace existing old, outlived and defective HT/LT OCBs/ACBs in I/D Sub-station of various location to maintain relaibility of power and providing ring connectivity under Electy (OP) Sub Division No. 09, Sector-43 Chandigarh
86	Division-4	Switchgear Replacement	Providing LT ACB by replacing the burnt/overheated/outdated/obsolete LT OCB/ACB at Indoor Sub Station sector 38, 39 & 40 under the Electricity. OP Subdivision. No. 10, sec-40, Chandigarh	2026-27	1.08	0.15	1.23	1.45	Replacement of old outdated /outlived LTOCB/ACB with higher capacity ACB in view of increasing load
87	Division-4	Switchgear Replacement	Providing LT ACB by replacing the burnt/overheated/outdated/obsolete LT OCB/ACB at Indoor Sub Station sector 38, 39 & 40 under the Electricity. OP Subdivision. No. 10, sec-40, Chandigarh	2026-27	0.21	0.03	0.24	0.28	Replacement of old outdated /outlived LTOCB/ACB with higher capacity ACB in view of increasing load
88	Division-1	Switchgear Replacement	Replacement of existing LT Panel Board indoor (1x1600 A Incoming + 5x630 Amp MCCP Outgoing) (12nos Substations:- SEC 9DSEC 9BSEC 26 Diesel Power HouseSec 14, PU, Swimming poolSec 14, PU, pharmacySec 14, PU, LawSec 14, PU, Student centerSec 14, PU, AC plant, Student centerSec-12 PEC (MURTI WALA)Sec-12 PEC Doongey wala 11/.4kv sector 17 Police Colony, bharat near petrol pump11/.4kv Mandi karan, Near Mandi karan board office)	2026-27	0.54	0.07	0.61	0.71	To remove the old outdated obselete machinery posing danger to the staff as well as public is required to be replaced with new one of latest technology having broader features.
89	Division-1	Switchgear Replacement	Replacement of existing 11 kV Panel Borad in Indoor S/STN with RMU (3 Way/4 Way / 5 Way) (12nos Substations:- SEC 9DSEC 9BSEC 26 Diesel Power HouseSec 14, PU, Swimming poolSec 14, PU, pharmacySec 14, PU, LawSec 14, PU, Student centerSec 14, PU, AC plant, Student centerSec-12 PEC (MURTI WALA)Sec-12 PEC Doongey wala 11/.4kv sector 17 Police Colony, bharat near petrol pump11/.4kv Mandi karan, Near Mandi karan board office)	2026-27	0.66	0.06	0.72	0.85	With the advent of the new technology RMUs have completely replaced GO Switches, OCBs, VCBs from the GSS the reason is that RMUs are robust rugged and very simple electrical controlling switches free from any kind of maintenance. By virtue of providing RMUs the efficiency of the system will be improved to five nines.

S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
90	Division-3	Switchgear Replacement	Replacement of existing 11kv panel board in I/D sub station with 3/4 way RMU under the jurisdiction of Subdivn. No.3 Chd. Site: -Sector 27 & 28 I/D S/Stn	2026-27	0.29	0.01	0.30	0.35	The existing Switchgear currently in service have reached the end of their operational lifespan and exhibit signs of significant degradation, rendering them prone to frequent electrical faults. To mitigate these risks, enhance power supply reliability, and improve operational safety, we propose the complete replacement of these outdated panel boards with modern Ring Main Units (RMUs). This upgrade will eliminate the safety hazards associated with OCBs and provide a more reliable and maintainable medium-voltage distribution system
91	Division-3	Switchgear Replacement	Replacement of existing 11kv panel board in I/D sub station with 3/4 way RMU under the jurisdiction of Subdivn. No.3 Chd Site: -Sector 19 & 21 I/D S/Stn	2026-27	0.29	0.01	0.30	0.35	The existing Switchgear currently in service have reached the end of their operational lifespan and exhibit signs of significant degradation, rendering them prone to frequent electrical faults. To mitigate these risks, enhance power supply reliability, and improve operational safety, we propose the complete replacement of these outdated panel boards with modern Ring Main Units (RMUs). This upgrade will eliminate the safety hazards associated with OCBs and provide a more reliable and maintainable medium-voltage distribution system
92	Division-3	Switchgear Replacement	Replacement of existing 11kv panel board in I/D sub station with 3/4 way RMU in Subdivn. No.6 Chd Site. - I/D S/Stn Sector 20	2026-27	0.46	0.02	0.48	0.56	The existing Switchgear currently in service have reached the end of their operational lifespan and exhibit signs of significant degradation, rendering them prone to frequent electrical faults. To mitigate these risks, enhance power supply reliability, and improve operational safety, we propose the complete replacement of these outdated panel boards with modern Ring Main Units (RMUs). This upgrade will eliminate the safety hazards associated with OCBs and provide a more reliable and maintainable medium-voltage distribution system
93	Division-3	Switchgear Replacement	Replacement of existing 11kv panal board in I/D sub station with 3/4/ way RMU in Subdivn. No.6, Chd Site: - I/D S/Stn. Secto 30 & 49	2026-27	0.17	0.01	0.18	0.21	The existing Switchgear currently in service have reached the end of their operational lifespan and exhibit signs of significant degradation, rendering them prone to frequent electrical faults. To mitigate these risks, enhance power supply reliability, and improve operational safety, we propose the complete replacement of these outdated panel boards with modern Ring Main Units (RMUs). This upgrade will eliminate the safety hazards associated with OCBs and provide a more reliable and maintainable medium-voltage distribution system
94	Division-3	Switchgear Replacement	Replacement of existing old overheated and defective LT breakers with new LT ACB of 11kv I/D S/Stn for better power supply & safe work place sector 32&46 , 20,30,49 under CPDL op S/Divn no 6 chd.	2026-27	1.07	0.12	1.19	1.41	The existing Switchgear currently in service have reached the end of their operational lifespan and exhibit signs of significant degradation, rendering them prone to frequent electrical faults. To mitigate these risks, enhance power supply reliability, and improve operational safety, we propose the complete replacement of these outdated panel boards with modern Ring Main Units (RMUs). This upgrade will eliminate the safety hazards associated with OCBs and provide a more reliable and maintainable medium-voltage distribution system
95	Division-3	Switchgear Replacement	Replacement of existing 11kv panel board in I/D sub station with RMU in Subdivn No.7 Chd, Site: - I/D S/Stn In Sector 35, chd	2026-27	0.44	0.02	0.46	0.55	The existing Switchgear currently in service have reached the end of their operational lifespan and exhibit signs of significant degradation, rendering them prone to frequent electrical faults. To mitigate these risks, enhance power supply reliability, and improve operational safety, we propose the complete replacement of these outdated panel boards with modern Ring Main Units (RMUs). This upgrade will eliminate the safety hazards associated with OCBs and provide a more reliable and maintainable medium-voltage distribution system
96	Division-4	Switchgear Replacement	Replacement & Augmentation of existing old, outlived and defective HT OCBs/ACBs in I/D Sub-station of various location under Electy (OP) Sub Division No. 09, Sector-43 Chandigarh	2027-28	0.85	0.04	0.89	1.06	To replace existing old, outlived and defective HT/LT OCBs/ACBs in I/D Sub-station of various location to maintain relaibility of power and providing ring connectivity under Electy (OP) Sub Division No. 09, Sector-43 Chandigarh
97	Division-4	Switchgear Replacement	Providing LT ACB by replacing the burnt/overheated/outdated/obsolete LT OCB/ACB at Indoor Sub Station sector 38, 39 & 40 under the Electricity. OP Subdivision, No. 10, sec-40, Chandigarh	2027-28	0.84	0.12	0.96	1.13	Replacement of old outdated /outlived LTOCB/ACB with higher capacity ACB in view of increasing load
98	Division-1	Switchgear Replacement	Replacement of existing LT Panel Board indoor (1x1600 A Incomng + 5x630 Amp MCCP Outgoing) (12 Nos Substations:- 11/.4kv Sec 17C Cabin Type, Near Mandi karan11/.4kv SEC 17B RCC Near Citco petrol pumpSEC 17B Punjab & Sindh bank SEC 17D BSNL Office (P&T)Sec-22A-1SEC 10ASector 7BSector 7CSec 15 CSec 16D Complaint centerSec 17C NEAR 30 BAYSSEC 24C)	2027-28	0.54	0.07	0.61	0.71	To remove the old outdated obselete machinery posing danger to the staff as well as public is required to be replaced with new one of latest technology having broader features.
99	Division-3	Switchgear Replacement	Replacement of existing 11kv panel board in I/D sub station with 3/4/ way RMU under jurisdiction of Subdivn. No.3 Chd Site: -Sector 18 I/D S/Stn.	2027-28	0.20	0.01	0.21	0.24	The existing Switchgear currently in service have reached the end of their operational lifespan and exhibit signs of significant degradation, rendering them prone to frequent electrical faults. To mitigate these risks, enhance power supply reliability, and improve operational safety, we propose the complete replacement of these outdated panel boards with modern Ring Main Units (RMUs). This upgrade will eliminate the safety hazards associated with OCBs and provide a more reliable and maintainable medium-voltage distribution system
100	Division-3	Switchgear Replacement	Replacement of existing outlived /overheated 3½ x400mm2 LT U/G cables of with ne	2027-28	0.38	0.04	0.43	0.50	The existing Switchgear currently in service have reached the end of their operational lifespan and exhibit signs of significant degradation, rendering them prone to frequent electrical faults. To mitigate these risks, enhance power supply reliability, and improve operational safety, we propose the complete replacement of these outdated panel boards with modern Ring Main Units (RMUs). This upgrade will eliminate the safety hazards associated with OCBs and provide a more reliable and maintainable medium-voltage distribution system
101	Division-3	Switchgear Replacement	Replacement of existing 11kv panal board in I/D sub station with 3/4/ way RMU in Subdivn. No.6, Chd Site: - I/D S/Stn. Sector 32 & 46	2027-28	0.17	0.01	0.18	0.21	The existing Switchgear currently in service have reached the end of their operational lifespan and exhibit signs of significant degradation, rendering them prone to frequent electrical faults. To mitigate these risks, enhance power supply reliability, and improve operational safety, we propose the complete replacement of these outdated panel boards with modern Ring Main Units (RMUs). This upgrade will eliminate the safety hazards associated with OCBs and provide a more reliable and maintainable medium-voltage distribution system

S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
102	Division-3	Switchgear Replacement	Replacement of existing 11kv panel board in I/D sub station with RMU in Subdivn. No.7 Chd, Site: - I/D S/Stn. in Sector 34 C & D, and Sector 33	2027-28	0.71	0.04	0.75	0.88	The existing Switchgear currently in service have reached the end of their operational lifespan and exhibit signs of significant degradation, rendering them prone to frequent electrical faults. To mitigate these risks, enhance power supply reliability, and improve operational safety, we propose the complete replacement of these outdated panel boards with modern Ring Main Units (RMUs). This upgrade will eliminate the safety hazards associated with OCBs and provide a more reliable and maintainable medium-voltage distribution system
103	Division-3	Switchgear Replacement	Replacement of existing 11kv panel board in I/D sub station with RMU in Subdivn. No.7 Chd, Site: - I/D S/Stn. In Sector 36 & 37	2027-28	0.76	0.04	0.79	0.94	The existing Switchgear currently in service have reached the end of their operational lifespan and exhibit signs of significant degradation, rendering them prone to frequent electrical faults. To mitigate these risks, enhance power supply reliability, and improve operational safety, we propose the complete replacement of these outdated panel boards with modern Ring Main Units (RMUs). This upgrade will eliminate the safety hazards associated with OCBs and provide a more reliable and maintainable medium-voltage distribution system
104	Division-3	Switchgear Replacement	Replacement of existing old and defective 11 KV LT OCBs of 11 KV I/D Sub Stations in Sector 33,34,35 B,35 C & 35D for uninterputed power supply under the jurisdiction of Sub Division No. 7, U.T. Chandigarh.	2027-28	1.07	0.12	1.19	1.41	The existing Switchgear currently in service have reached the end of their operational lifespan and exhibit signs of significant degradation, rendering them prone to frequent electrical faults. To mitigate these risks, enhance power supply reliability, and improve operational safety, we propose the complete replacement of these outdated panel boards with modern Ring Main Units (RMUs). This upgrade will eliminate the safety hazards associated with OCBs and provide a more reliable and maintainable medium-voltage distribution system
105	Division-2	Switchgear Replacement	Estimate for replacement existing 11 KV VCB and LT ACBs at 11 KV Indoor Sub Station Gatta Mill, Industrial Area, Ph-1, Chandigarh, under the jurisdiction of Electy. 'OP' S/D No.5, Chandigarh.	2028-29	0.11	0.01	0.12	0.14	Replacement of VCB with 4 Way RMU
106	Division-2	Switchgear Replacement	Estimate for replacement existing 11 KV VCB and LT ACBs at 11 KV Indoor Sub Station Sector-29, Chandigarh, under the jurisdiction of Electy. 'OP' S/D No.5, Chandigarh.	2028-29	0.15	0.01	0.16	0.19	Replacement of VCB with 4 Way RMU
107	Division-4	Switchgear Replacement	Providing LT ACB by replacing the burnt/overheated/outdated/obsolete LT OCB/ACB at Indoor Sub Station sector 38, 39 & 40 under the Electricity. OP Subdivision. No. 10, sec-40, Chandigarh	2028-29	1.25	0.17	1.42	1.68	Replacement of old outdated /outlived LTOCB/ACB with higher capacity ACB in view of increasing load
108	Division-1	Switchgear Replacement	Replacement of existing 11 kV Panel Borad in Indoor S/STN with RMU (3 Way/4 Way / 5 Way) (8nos Substations:- Sec 14, PU, Admin blockSector 17 E, Shopping CenterSEC 26 Chandigarh Polytechnic College(CPC)11/.4kv SEC 17C PSIDCHaryana VidhansabhaHaryana Civil secreterateSec 16A G.M.S.HSec -12, PGI Command , Gate no2)	2028-29	0.69	0.06	0.75	0.88	With the advent of the new technology RMUs have completely replaced GO switches, OCBs, VCBs from the GSS the reason is that RMUs are robust rugged and very simple electrical controlling switches free from any kind of maintenance. By virtue of providing RMUs the efficiency of the system will be improved to five nines.
109	Division-1	Switchgear Replacement	Replacement of existing LT Panel Board indoor (1x1600 A Incoming + 5x630 Amp MCCP Outgoing) (12 Nos Substations:- SEC 10DSEC 11BSEC 11CSEC 3BSEC 9CSEC 26 Police Colony S/stn11/.4kv Sec 17D Multi level parkingSec-22B-1SEC-22B-3SEC 23BSEC 24BSector 7A)	2028-29	0.54	0.07	0.61	0.71	To remove the old outdated obselete machinery posing danger to the staff as well as public is required to be replaced with new one of latest technology having broader features.
110	Division-1	Switchgear Replacement	Replacement of existing LT Panel Board indoor (1x1600 A Incoming + 5x630 Amp MCCP Outgoing) (12 Nos Sec 15 ASec 15 DSec-22A-2Sec-22B-2SEC 22CSEC 23CSEC 22DSEC 23DSec 15 BSec 16B Near rose club11/.4kv SEC 17A, Underpass S/stn')	2029-30	0.54	0.07	0.61	0.71	To remove the old outdated obselete machinery posing danger to the staff as well as public is required to be replaced with new one of latest technology having broader features.
111	Division-2	11 KV Feeder Augmentation	Conversion of 11 KV Sukhna Feeder into underground along with provision of RMUs and replacement of existing 11 KV underground cable having numerous joints with new one of appropriate capacity in village Daria under the control of under Electy. 'OP' S/Divn. No.5, Chandigarh	2025-26	1.18	0.87	2.06	2.43	Existing 11 kV Sukhna Feeder is composite feeder having both O/H and U/G Section. The O/H section is prone to repeated tripping ans there are multiple joints in U/G section. So its is proposed to replace the entire feeder with 3X300 Sq MM U/G Cable to improve power supply reliability of village Daria. RMUs are also proposed to provide ring connectivity to this feeder.
112	Division-2	11 KV Feeder Augmentation	Replacement of sick 11 KV XLPE cables of 11KV Village Bair Majra feeder of sizes 3x185mm2 by providing new 3x300 mm2 11KV XLPE Cable for the improvement of LD system under CPDL 'OP' S/Divn. no. 5, Chandigarh.	2025-26	0.03	0.03	0.06	0.07	Existing network have multiple joint and cable is under sized, not able to cater the load during the load changeover hence Replacement of existing Under size/ Sick cable is recommended of 11 KV feeder Bair majra
113	Division-2	11 KV Feeder Augmentation	Conversion of 11 KV O/H line with 11KV 3X300 mm2 U/G cable of Kalka Feeder emanating from 66 KV Grid Sub Station BBMB to Kishangarh chowk for improve the LD System Under Electy. 'OP' S/Divn.-8, Manimajra, Chandigarh (Tender Allotted)	2025-26	0.53	0.55	1.07	1.27	OH to UG conversion if proposed to reduce tripping and breakdown during rainy season hence to improve network reliability
114	Division-2	11 KV Feeder Augmentation	Replacement of sick Rabbit/Weasel HT conductor with ACSR dog conductor of 11 KV indira colony feeder.	2025-26	0.01	0.00	0.01	0.02	Replacement of existing Rabbit /Weasel conductor to enhance the capacity of existing network.
115	Division-4	11 KV Feeder Augmentation	Replacement and augmentation of existing 3x150 sq.mm. XLPE cable with 3x300mm2 XLPE cable of 11kV Progressive feeder from 66 kV Grid Sub-Station Sector 47 Chandigarh, under the control of CPDL, Electy (OP) Sub Division No. 09, Sector-43 Chandigarh	2025-26	0.34	0.35	0.69	0.81	Old Outlived UG cables with multiple joints get replaced
116	Division-1	11 kV Feeder Augmentation	Strengthening of network of distribution system after replacement and augmentation of 11kV U/G Pilca 3x185/120/70 sq mm link or feeder cable with 3x300 sq mm XLPE cable in Sector 9&10 under Electy 'OP' Sub Divn No. 2, UT, Chandigarh.	2025-26	0.45	0.42	0.87	1.02	The proposal covers the replacement of old outdated obselete, undersize pilca cables which have numerous joints at various places leading to outages at large. The above pilca cables are also indulging in catering the power supply of the most VVIPs area of chandigarh. In order to strengthen the position of the power supply in the respective area the above proposal have been framed.
117	Division-1	11 kV Feeder Augmentation	Replacement & augmentation of 11 KV U/G Pilca 3x95/120/150 mm2 Governor House feeder cable with 3x300mm2 XLPE cable under Electy. OP S/Divn. No.2, UT, Chandigarh	2025-26	0.46	0.43	0.89	1.05	The above proposal have been made to enhance the position of the power supply to the Governor house Punjab. The existing network of power cables have become obsolete, outdated, undersize and are prone to the faults after couple of days resulting in additional financial burden on the institution. The proposal will remove all the barricates of uninterrupted power supply to the most renowned building of U.T. Administration Chandigarh.

S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
118	Division-3	11 KV Feeder Augmentation	Replacement of link cables of 11kv tagore feeder from Sector 18D to 19D and 27B to Babla MC T/F and further link cable of 32/27 feeder from sanik rest house for system reliability to achieve the purpose of uninterrupted power supply under the jurisdiction of CPDL OP S/Divn. No. 3, Chandigarh Site: - Link Cables in Sector 18, 19, 27 & 21	2025-26	0.67	0.47	1.14	1.35	The proposal covers the replacement of the existing U/G Cable . The necessity of replacement has arisen as the existing cable has developed with number of joints at various places resulting in compromising the uninterrupted power supply .
119	Division-2	11 KV Feeder Augmentation	Replacement of sick 11 KV XLPE cables of 11KV KCS and Industrial-1 feeder of sizes 3x150 mm2, 3x185mm2 & 3x300mm2 by providing new 3x300 mm2 11KV XLPE Cable for the improvement of LD system under CPDL 'OP' S/Divn. no. 5, Chandigarh.	2026-27	0.17	0.18	0.35	0.41	Existing network have multiple joint and cable is under sized, not able to cater the load in the load changeover during summer months hence replacement of existing Under size/ Sick cable is recommended of KCS and Industrial-01.
120	Division-2	11 KV Feeder Augmentation	Conversion of OH to UG 11 KV mauli and Mauli complex feeder for reducing outages and improving reliability	2026-27	0.43	0.44	0.88	1.03	OH to UG conversion if proposed to reduce tripping and breakdown during rainy season hence to improve network reliability.
121	Division-2	11 KV Feeder Augmentation	Replacement of sick Rabbit/Weasel HT conductor with ACSR dog conductor of 11 KV railway feeder.	2026-27	0.01	0.00	0.01	0.01	Strengthening of railway feeder is proposed by replacing existing Rabbit/Weasel conductor with ACSR Dog Conductor which will also enhance the capacity of HT network to cater the load demand
122	Division-4	11 KV Feeder Augmentation	Replacement and augmentation of existing 3x185 sq.mm. cable with 3x300mm2 XLPE cable of 11kV U/G Sector-42 feeder from 66kV G/Sub-stationSector 52 Chandigarh, under the control of CPDL, Electy (OP) Sub Division No. 09, Sector-43 Chandigarh	2026-27	0.25	0.26	0.51	0.60	The existing UG cable has multiple joints and prone to breakdowns and load on the feeder has been increased in Sec-42 & Village Attava.
123	Division-4	11 KV Feeder Augmentation	Replacement and augmentation of existing 3x150/185 sq.mm. cable with 3x300mm2 XLPE cable of 11kV U/G Burail feeder from 66kV G/Sub-station Sector 32 Chandigarh, under the control of CPDL, Electy (OP) Sub Division No. 09, Sector-43 Chandigarh	2026-27	0.25	0.26	0.51	0.60	Old Outlived UG cables with multiple joints get replaced
124	Division-4	11 KV Feeder Augmentation	Replacement and augmentation of existing 3x185 sq.mm. XLPE cable with 3x300mm2 XLPE cable of 11kV Sector-51 old feeder from 66kV G/Sub-station Sector 52 Chandigarh, under the control of CPDL, Electy (OP) Sub Division No. 09, Sector-43 Chandigarh	2026-27	0.61	0.64	1.25	1.48	Old Outlived UG cables with multiple joints get replaced
125	Division-4	11 KV Feeder Augmentation	Replacement & Augmentation HT cable of 11kV 43 Underground feeder and 11 kV 43 Overhead (underground portion) feeders emanating from 66 kV Grid Substation Sector 52 from 3x150/185 sq.mm. to 3x300 sq.mm. XLPE cable for the improvement of LD system under CPDL, Electy (OP) Sub Division No. 09, Sector-43 Chandigarh	2026-27	0.29	0.31	0.60	0.71	Old Outlived UG cables with multiple joints get replaced
126	Division-1	11 kV Feeder Augmentation	Conversion of 11 KV OH Line of MSW feeder into UG system by laying 11 KV 3 core 300 mmsq cable to remove the consistent outages and to improve the system efficiency.	2026-27	0.58	0.47	1.05	1.24	The existing 11 KV O/H line of MSW Feeder of 66 KV GSS and is catering to the Sector 12 power supply of garbage treatment plant village dhanas. The above O/H line is passing a dense jungle and facing frequent faults due to sudden fall of the branches of the trees over the O/H portion of the line. The above poriton of the line is required to be converted into the U/G system by laying cable of appropriate size. This fact will improve the position of the power supply under the respective areas.
127	Division-1	11 kV Feeder Augmentation	Replacement/Augmentation of existing 11KV U/G Pilca cable 3x50mm2 with 3x300mm2 XLPE Cable between I/D S/Stn, Sec-16B to H. NO. 514, Sec-16 and providing 11KV link between Cricket/Stadium feeder & 300 KVA P/M T/F Red cross Society, Sec-16,Chd	2026-27	0.21	0.17	0.38	0.45	By virtue of above proposal the power supply to the most VVIP houses of the senior diginatories in Sector 16 as well as the cricket stadium Sector 16 will be improved. Probably the existing set of cables is not worthwhile and is prone to the repeated failures due to burning of the cables and many more other unforeseen reasons.
128	Division-1	11 kV Feeder Augmentation	Replacement/ Augmentation of existing 11 KV U/G old/ outlived PILCA cable 3x70/185 sq.mm with 3x300 sq. mm XLPE cable from I/D S/Stn Law College P.U. Sec. 14 to O/H line on Pharmacy Feeder & on Pharmacy feeder Near Swimming Pool S/Stn. P.U. & I/D S/Stn. Admin Block to P/M T/F Near Gate No. 2 P.U. Sec 14, under the jurisdiction of Electy. 'OP' Sub/Divn. no.4, Sec 15C, Chandigarh.	2026-27	0.10	0.05	0.15	0.18	The CPDL has taken on its top priority to weed out the network of old pilca cables to enhance the system efficiency. The block of law auditorium as well as many other buildings of the Panjab University are having the network of pilca cables with numerous joints on its way and remains effected due to burning of joints or punchning of cables. The new proposal will enhance the level of the power supply under the respective areas.
129	Division-1	11 kV Feeder Augmentation	Replacement and augmenation of old/damaged/having number of joints in 11 kv xple cables of sizes 3x150 mm 2 3x185 mm 2 & 3x300 mm 2 by providing new 3x300 mm 2 11 kv xple cable in sector 22 under SDO electy op s/divn. no.1 u.t.Chandigarh.	2026-27	0.45	0.42	0.86	1.02	The above proposal have been made keeping in view the circumstances that the existing network of 11 KV U/G cables at various places in Sector 22, requires immediate concern due to the reason that the existing cables are having numerous joints and are prone to the faults repeatedly. Also in the above proposal the augmentation of existing cables to 11 KV 300mmsq have been proposed to make a universal bus between all the resources so as to utilise each resource to the optimum capacity.
130	Division-1	11 kV Feeder Augmentation	Augmentation of 11 KV 185 mmsq cable of shivalik feeder eminating from 33 KV GSS Sec 17 to 11 KV 300 mmsq cable to improve the system efficiency.	2026-27	0.16	0.12	0.29	0.34	The existing 11 KV Shivalik feeder eminating from 33 Kv GSS Sector 17 is having the main feeding cable of 185 mmsq and is having numerous joints on its way. This results in repeated faults and a compromise in the service to the consumers. The above proposal will remove the prevailing outages to the minimum and will strengthen the position of the power supply in the area.
131	Division-1	11 kV Feeder Augmentation	Conversion of 11 KV New Secrtt. O/H Feeder eminating from 66 KV GSS Sector 12 into UG system by laying 11 KV 3 Core 300 mmsq cable	2026-27	0.65	0.58	1.22	1.44	The above 11 KV feeder caters to the power supply of Sector 11 and Punjab and Haryana Civl Sectt. As well as Sector 2, 3 & 4 and has larger area passing through dense trees on PGI/PEC road. To increase the reliability of power supply the O/H portion has been proposed to be made U/G by laying 300 sqmm cable to improve system efficiency.
132	Division-3	11 kV Feeder Augmentation	Replacement of existing outlived 11 KV U/G cable of city centre Feeder from 33KV GSS Sec 34 to I/D S/Stn. Sector 34 with new 11 KV 3x300mm2 XLPE cable under the jurisdiction of CPDL 'OP' S/Divn No. 7, Chd.	2026-27	0.31	0.23	0.54	0.63	The replacement of the existing underground (UG) cable is being proposed due to several critical factors. Firstly, the existing cable exhibits a significant number of in-line joints, which inherently represent points of increased susceptibility to failure mechanisms such as moisture ingress, insulation degradation, and mechanical stress. This multiplicity of joints contributes directly to the cable's documented propensity for operational breakdowns, resulting in supply interruptions and increased maintenance requirements. Secondly, the electrical load demand on the feeder serving Sector-42 and Village Attava has demonstrably increased. This heightened demand places additional thermal and electrical stress on the aging cable, particularly at the numerous joint locations; further exacerbating the risk of premature failure and limiting the feeder's capacity to reliably serve the growing load. Therefore, the replacement is deemed necessary to ensure a stable and reliable power supply to the aforementioned areas.

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133	Division-3	11 kV Feeder Augmentation	Conversion of 11 kV O/H link of 11 KV U/G 3x300mm2 cable between I/D S/Stn. Sec 36-B to 36-C, Sec 36-A to 36-B and Sec.36-A to D under the jurisdiction of CPDL OP Sub Divn.No.7, Chd	2026-27	0.34	0.22	0.56	0.66	The existing overhead feeders to this load center is overloaded. The feeder faces frequent trippings due to overloading during peak summer months. So this new feeder is porposed to share the load of existing overloaded feeder and improve the power reliability of area.
134	Division-2	11 KV Feeder Augmentation	Conversion of OH to UG 11 KV Shastri feeder for reducing outages and improving reliability	2027-28	0.18	0.19	0.38	0.44	OH to UG conversion if proposed to reduce tripping and breakdown during rainy season hence to improve network reliability
135	Division-2	11 KV Feeder Augmentation	Replacement of existing sick and undersize 11KV U/g 3x185mm2 XLPE cable with new 11KV 3x300mm2 XLPE cable of 11KV RD-1, RD-2, Sector-31, N&K and 3BRD feeder having multiple joints on the way for improvement of LD system under Electricity 'OP' Sub Division No. 5, U.T.Chandigarh.	2027-28	0.54	0.55	1.09	1.29	Existing network have multiple joint and cable is under sized, not able to cater the load during the load changeover hence Replacement of existing Under size/ Sick cable is proposed.
136	Division-4	11 KV Feeder Augmentation	Replacement of existing 11 KV 3X300mm2 having numerous joints in U/G Cable of 11 KV Sargodha Feeder with 11 KV 3X300mm2 U/G cable for improvement of LD System under CPDL, Electy (OP) Sub Division No. 09, Sector-43 Chandigarh	2027-28	0.37	0.38	0.75	0.89	Old Outlived UG cables with multiple joints get replaced
137	Division-4	11 KV Feeder Augmentation	Replacement of existing 11 KV 3X300mm2 having numerous joints in U/G Cable of 11 KV Gurudwara Feeder feeding to sector-63 with 11 KV 3X300mm2 U/G cable for improvement of LD System under CPDL, Electy (OP) Sub Division No. 09, Sector-43 Chandigarh.	2027-28	0.49	0.51	1.00	1.18	Old Outlived UG cables with multiple joints get replaced
138	Division-4	11 KV Feeder Augmentation	Replacement and augmentation of existing 3x185mm2 cable with of 11KV Sector -44D feeder from 66KV Sector -52 and link between Sector – 44 B & C, Chd. With 3x300 mm2 XLPE cable.	2027-28	0.51	0.52	1.03	1.21	to provide an independent feeder to 11kv ID substation sec-44B ,This will help to create a ring main feeder to both 11kV 44C and 11kV 44A OH feeders.
139	Division-1	11 kV Feeder Augmentation	Augmentation of 11 KV 185 mmsq cable of P&T feeder eminating from 33 KV GSS Sec 17 to 11 KV 300 mmsq cable to improve the system efficiency.	2027-28	0.23	0.19	0.42	0.50	The instant estimate has been prepared for the replacement of existing 11 KV 150mmsq cable eminating from 33 KV GSS, Sector 17. The above feeder beside catering to the power supply of the commercial ventures is also catering to the power supply of Multi level parking. The healthiness of the cable is a matter of grave concern and large number of power failures have come to the notice due to burning of one or the another joint. In order to improve the position of power supply in the area it has been proposed to augment the size of the cable with 300 mmsq which will remove the prevailing problems and will strengthen the local distribution system.
140	Division-1	11 kV Feeder Augmentation	Conversion of 11 KV O/H CPWD Feeder into 11 KV U/G cable of size 300 mm sq. XLPE to reduce the trippings / breakdowns bare minimum under the jurisdiction Elecy. 'OP' S/Divn. No. 2, Chandigarh (U.T.)	2027-28	0.14	0.10	0.25	0.29	The proposal covers the replacement of the existing U/G Cable CPWD feeder eminating from 66 KV GSS, Sector 1, Chandigarh. The necessity of replacement has arisen as the existing cable has developed with number of joints at various places resulting in compromising the uninterrupted power supply to the VVIP buildings in Sector 9, Chandigarh. The replacement of the cable will premanently weed out the prevailing problems and will improve the system efficiency.
141	Division-1	11 kV Feeder Augmentation	Augmentation of 11 KV 150 sqmm cable police colony feeder eminating from 33 KV GSS Sector 18 with 11 KV 300 mmsq to improve the system efficiency	2027-28	0.40	0.32	0.72	0.85	The existing 11 Kv Cable of size 150 mmsq cut inbto the power supply of Sector 17 is consistenly giving problem of outages due to underrating as well as number of joints on its length. In order to improve the system efficiency the size of the cable has been augmented to 300mmsq. The process will be increase the system efficiency.
142	Division-1	11 kV Feeder Augmentation	Conversion of 11 KV High Court O/H Feeder eminating from 66 KV GSS Sector 1into UG system by laying 11 KV 3 Core 300 mmsq cable	2027-28	0.33	0.25	0.57	0.68	The O/H line of 11 KV High Court feeder is prone to the repeated fault as on the adjacent there is a dense forest area. Being the prestigious institution the interruptions of power are undesirable. To remove the prevailing problem the line is proposed to convereted into U/G system by laying 300 sqmm cable from grid to the Indoor Sub station.
143	Division-1	11 kV Feeder Augmentation	Augmentation of existing 11 KV 11C Feeder eminating from 66 KV GSS Sec 12 (150 sqmm cable to 11 KV 300 mmsq cable) to improve the system efficiency	2027-28	0.46	0.39	0.85	1.00	The existing 11 Kv Cable of size 150 mmsq cut inbto the power supply of Sector 11 is consistenly giving problem of outages due to underrating as well as number of joints on its length. In order to improve the system efficiency the size of the cable has been augmented to 300mmsq. The process will be increase the system efficiency.
144	Division-1	11 kV Feeder Augmentation	Conversion of 11 KV new radial feeder catering to power supply of Sec 26 and Bapu Dham from OH to U/G eminating from 66 KV GSS BBMB	2027-28	0.33	0.25	0.57	0.68	The above feeder is crossing over the Madhya Marg and beneath it the the public flow as well as transport vehicles is quite high. It posses danger to the inhabitents. The selective portion of the feeder has been proposed to be coverted into the U/G by laying 300 sqmm cable upto the point of interception to make the area hassle free.
145	Division-1	11 kV Feeder Augmentation	Conversion of 11 KV O/H to U/G Sector 7 & 8 feeders eminating from 66 KV GSS Sector 1, Chandigarh	2027-28	0.58	0.51	1.10	1.30	The above feeders are erected on single rail pole structures having twin feeders by erecting cross arm of suitable length. The above feeders are also passing through the forest area as well as bird century near lake. To remove the problem of repeated fault the selected area of the feeders has been proposed to be made U/G by laying cable of 300 sqmm which will improve the system efficiency.
146	Division-2	11 KV Feeder Augmentation	Conversion of OH to UG 11 KV AWHO feeder for reducing outages and improving reliability	2028-29	0.37	0.38	0.75	0.89	OH to UG conversion if proposed to reduce tripping and breakdown during rainy season hence to improve network reliability
147	Division-2	11 KV Feeder Augmentation	Conversion of OH to UG 11 KV Govt Tubewell feeder for reducing outages and improving reliability	2028-29	0.14	0.15	0.29	0.34	OH to UG conversion if proposed to reduce tripping and breakdown during rainy season hence to improve network reliability
148	Division-2	11 KV Feeder Augmentation	Replacement of sick Rabbit/Weasel HT conductor with ACSR dog conductor of 11 KV new town feeder.	2028-29	0.02	0.00	0.03	0.03	Strengthening of new town feeder is proposed by replacing existing Rabbit/Weasel conductor with ACSR Dog Conductor which will also enhance the capacity of HT network to cater the load demand
149	Division-4	11 KV Feeder Augmentation	Replacement & augmentation of existing 11 KV 3X185mm2 U/G Cable of 11 KV Sec. 52 Feeder having numerous joints due to widening of road and construction of new round about with 11 KV 3X300mm2 U/G cable for improvement of LD System under CPDL, Electy (OP) Sub Division No. 09, Sector-43 Chandigarh.	2028-29	0.18	0.19	0.38	0.44	Old Outlived UG cables with multiple joints get replaced
150	Division-1	11 kV Feeder Augmentation	Replacement of 11 KV O/H bare conductor with 11KV 3X300 mm2 XLPE cable village Khuda Alisher, Chandigarh	2028-29	0.49	0.50	0.99	1.17	The above proposal covers the complete revamping of the HV/LV distribution system in village Khuda Ali Sher under the jurisdiction of this office. The necessity of revamping the system has arised due to the reason that the existing power supply system is very old i.e. approximately laid 30-40 years back and is not catering to the desired purpose resulting in low voltages, frequent power failures and repeatidly burning of the fuses as well as burnouts of the line/T/Fs. It is aslo a fact that with the advent of the new electrical gadget the people residing in the villages are also started utilizing the above priviledge into their houses and requires uninterrupted power supply to their houses. The above scope of work will overall remove the prevailing problems to the best possible extent.

S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
151	Division-1	11 kV Feeder Augmentation	Replacement of 11 KV O/H bare conductor with 11KV 3X300 mm2 XLPE cable in village Khaimbwala, Chandigarh	2028-29	0.15	0.11	0.26	0.30	The O/H line of 11kV Kaimbwala feeder is passing through densed area of forest. Due to O/H Line the faults takes place frequently due to multiple reasons. The restoration of the power supply also takes lot of time due to executing intensive exercise of patrolling being the forest area. Also the size of the ACSR is inadequate and sometimes become damaged therbey posing serious danger to the rehabitants in the locality. In order to remove the prevailing problem it has been proposed to convert the portion of the line into underground system by laying 11 KV 300sqmm cable upto the bus stand area of kaimbala. By making up above provision the entire area of the forest will be bypassed and the problem of the repeated brekdowns of 11 KV feeders will be permanenlly resolved.
152	Division-2	11 KV Feeder Augmentation	Replacement of sick Rabbit/Weasel HT conductor with ACSR dog conductor of 11 KV indira colony feeder.	2029-30	0.06	0.01	0.07	0.08	Strengthening of indira colony feeder is proposed by replacing existing Rabbit/Weasel conductor with ACSR Dog Conductor which will also enhance the capacity of HT network to cater the load demand
153	Division-4	11 KV Feeder Augmentation	Replacement of existing 11 KV 3X300mm2 U/G Cable of 11 KV CRPF Feede from sec47 GSS with 11 KV 3X300mm2 U/G cable having numerous joints due to widening of road and construction of new round about for improvement of LD System under CPDL, Electy (OP) Sub Division No. 09, Sector-43 Chandigarh.	2029-30	0.43	0.44	0.88	1.03	UG cables with multiple joints frequently damaged due to excavation work by other utility in the same corridor for widening the road.
154	Division-4	11 KV Feeder Augmentation	Replacement of existing 11 KV 3X300mm2 U/G Cable of 11 KV Sec. 41 Feeder with 11 KV 3X300mm2 U/G cable having numerous joints due to widening of road and construction of new round about for improvement of LD System under from sec-56 substation CPDL, Electy (OP) Sub Division No. 09, Sector-43 Chandigarh.	2029-30	0.19	0.20	0.39	0.46	UG cables with multiple joints frequently damaged due to excavation work by other utility in the same corridor.
155	Division-3	11 kV Feeder Augmentation	Replacement and augmentation of existing 11KV U/G 3x150/185mm2 XLPE cables of 11KV feeders with underground cable of size 3x300mm2 XLPE cable for improvement of LD System under CPDL 'OP' S/Divn. No.-3, UT, Chd. 1. 11kv link Indoor substation sec 27B to I/D Station 27C 2. 11kv link Indoor substation sec27C to I/D Station 28D 3. 11kv link Indoor substation sec28D to house no 3005 sec28D 4. 11kv link near H no.01 sec28A to I/D Station 28C 5. 11kv link Indoor substation sec27C to H.No. 3212 27D 6. 11kv link Indoor substation sec19c to I/D Station 27D	2029-30	0.67	0.47	1.14	1.35	The proposal covers the replacement of the existing U/G Cable . The necessity of replacement has arisen as the existing cable has developed with number of joints at various places resulting in compromising the uninterrupted power supply .
156	Division-2	Transformer Upgradation	Replacement of outlived and multiple time repaired existing transformer of capacity 315 KVA with 5 new 400 kVA Transformer under the Juridriction of Sub- division 8 area to improve the system reliability and quality of power supply	2026-27	0.22	0.06	0.27	0.32	Replacement of outlived and multiple time repaired transformer with new transformer of same capacity
157	Division-3	11 kV Feeder Augmentation	Replacement and augmentation of existing 11KV XLPE 3x150mm2 U/G Cable with 11K	2026-27	0.24	0.21	0.45	0.53	The replacement of the existing underground (UG) cable is being proposed due to several critical factors. Firstly, the existing cable exhibits a significant number of in-line joints, which inherently represent points of increased susceptibility to failure mechanisms such as moisture ingress, insulation degradation, and mechanical stress. This multiplicity of joints contributes directly to the cable's documented propensity for operational breakdowns, resulting in supply interruptions and increased maintenance requirements. Secondly, the electrical load demand on the feeder serving Sector-42 and Village Attava has demonstrably increased. This heightened demand places additional thermal and electrical stress on the aging cable, particularly at the numerous joint locations, further exacerbating the risk of premature failure and limiting the feeder's capacity to reliably serve the growing load. Therefore, the replacement is deemed necessary to ensure a stable and reliable power supply to the aforementioned areas.
158	Division-2	Transformer Upgradation	Replacement of outlived and multiple time repaired existing transformer of capacity 315 KVA with5 new 400 kVA Transformer under the Juridriction of Sub- division 5 area to improve the system reliability and quality of power supply	2026-27	0.22	0.06	0.27	0.32	Replacement of outlived and multiple time repaired transformer with new transformer of same capacity
159	Division-4	Transformer Upgradation	Replacement of existing 76 nos. outlived/obsolete/overloaded 200 kVA pole mounting transformers with proposed 315 kVA P/M T/F under the jurisdiction of CPDL, Electy (OP) Sub Division No. 10, Sector-40 Chandigarh	2026-27	0.58	0.15	0.73	0.86	Replacement of old outdated /outlived transformer with higher capacity in view of increasing load
160	Division-1	Transformer Upgradation	Augmentation of 100/200 KVA Transformers and weeding out old, obsolete, outdated 300/315 KVA Aluminium wound (undergone multiple repairs) with 400 KVA (400 KVA on 4 pole Structure with allied material i.e. 5 No. Earth, 630 Amp ACB Panel + 2 MCBs 400 Amp.) Detail of P/M T/Fs S/D No. 1 = 98 (Total) - 2 nos (Proposed) S/D No. 2 = 200 nos (Total) - 4 nos (Proposed) S/D No. 4 = 209 nos (Total) - 4 nos (Proposed)	2026-27	0.75	0.25	1.01	1.19	The above proposal have been made to replace the old outdated obselete and underrated transformer prone to the repeated failures leading to compromise in the power supply with new 400 KVA copper wound transformer along with controlling switches on every side for overall improvement of the system efficiency.
161	Division-1	Transformer Upgradation	Augmentation of existing 750/800 KVA Transformers (old one, undergone multiple repairs) and weeding out old, obsolete, outdated infrastructure with new 1000 KVA copper wound transformer in Indoor Substation of Division-1 Detail of I/D T/Fs S/D No. 1 = 12 nos. (Total) - 1 no (Proposed) S/D No. 2 = 24 nos. (Total) - 1 no (Proposed) S/D No. 4 = 26nos. (Total) - 2 no. (Proposed)	2026-27	0.51	0.21	0.72	0.86	The above proposal have been made to replace the old outdated obselete and underrated transformer prone to the repeated failures leading to compromise in the power supply with new 1000 KVA copper wound transformer along with controlling switches on every side for overall improvement of the system efficiency.
162	Division-3	Transformer Upgradation	Replacement and augmentation of existing Outlived P/M T/F/s of capacity of 100/200/300KVA with 400 KVA copper wound T/Fs. To increase the system efficiency and to reduce the T & D losses under the jurisdiction of CPDL 'OP'S/Div. no-3, UT, Chd. Site: - Sector 28 & 19	2026-27	1.07	0.19	1.26	1.48	The existing transformers are aged old and overloaded. The replacement of these transformer with higher capacity transformer is proposed for meeting the load growth of the area.
163	Division-3	Transformer Upgradation	Replacement and augmentation of existing Outlived P/M T/F/s of capacity of 100/200/300KVA with 400 KVA copper wound T/Fs. To increase the system efficiency and to reduce the T & D losses under the jurisdiction of CPDL 'OP'S/Div. no-3, UT, Chd. Site: - Sector 18 & 19.	2026-27	0.93	0.16	1.10	1.30	The existing transformers are aged old and overloaded. The replacement of these transformer with higher capacity transformer is proposed for meeting the load growth of the area.

S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
164	Division-3	Transformer Upgradation	Replacement and augmentation of existing Outlived T/F/s of capacity of 630/750/800 KVA with 1000 KVA copper wound T/Fs. To increase the system efficiency of the T/Fs and to reduce the T & D losses under jurisdiction of CPDL 'OP'S/Div. no-3,UT, Chd. I/D sub station sec-28 Site: - I/D S/Stn. Sector 28	2026-27	1.20	0.03	1.23	1.45	The existing transformers are aged old and overloaded. The replacement of these transformer with higher capacity transformer is proposed for meeting the load growth of the area.
165	Division-3	Transformer Upgradation	Replacement and augmentation of existing old outlived 630/800 KVA with 1000 kVA Copper Wound for improvement of position of power supply under jurisdiction of S/D No. 6, U.T., Chandigarh Site: - 11 kV I/D S/Stn. Sec 20 S/S, U.T., Chd.	2026-27	0.60	0.02	0.62	0.73	The existing transformers are aged old and overloaded. The replacement of these transformer with higher capacity transformer is proposed for meeting the load growth of the area.
166	Division-3	Transformer Upgradation	Replacement of old and overloaded P/M T/F/s of capacity of 100/200/300KVA with 400 KVA copper wound T/Fs under the jurisdiction of Sub Division No. 7, Chd Site: - Near House No. 207, near Congress Bhawan, near SCO 301, Back side of Axis Bank, back side of Uttaranchal Dhaba, in front of House No. 3222, near sampark centre in sector 35	2026-27	0.67	0.12	0.78	0.93	The existing transformers are aged old and overloaded. The replacement of these transformer with higher capacity transformer is proposed for meeting the load growth of the area.
167	Division-2	Transformer Upgradation	Replacement of outlived and multiple time repaired existing transformer of 315 KVA with 5 new 400 kVA Transformer in the Juridriction of Sub- division 8 area to improve the system reliability and quality of power supply	2027-28	0.22	0.06	0.27	0.32	Replacement of outlived and multiple time repaired transformer with new transformer of same capacity
168	Division-2	Transformer Upgradation	Replacement of outlived and multiple time repaired existing transformer of capacity 315 KVA with 5 new 400 kVA Transformer in the Juridriction of Sub- division 5 area to improve the system reliability and quality of power supply	2027-28	0.22	0.06	0.27	0.32	Replacement of outlived and multiple time repaired transformer with new transformer of same capacity
169	Division-2	Transformer Upgradation	Replacement of outlived and multiple time repaired existing transformer of capacity 315 KVA with 6 new 400 kVA Transformer under the Juridriction of Sub- division 8 area to improve the system reliability and quality of power supply	2027-28	0.22	0.06	0.27	0.32	Replacement of outlived and multiple time repaired transformer with new transformer of same capacity
170	Division-2	Transformer Upgradation	Replacement of outlived and multiple time repaired existing transformer of capacity 3	2027-28	0.22	0.06	0.27	0.32	Replacement of outlived and multiple time repaired transformer with new transformer of same capacity
171	Division-4	Transformer Upgradation	Replacement of existing 76 nos. outlived/obsolete/overloaded 200 kVA pole mounting transformers with proposed 315 kVA P/M T/F under the jurisdiction of CPDL, Electy (OP) Sub Division No. 10, Sector-40 Chandigarh	2027-28	1.80	0.48	2.28	2.69	Replacement of old outdated /outlived transformer with higher capacity in view of increasing load
172	Division-1	Transformer Upgradation	Augmentation of 100/200 KVA Transformers and weeding out old, obsolete, outdated 300/315 KVA Aluminium wound (undergone multiple repairs) with 400 KVA (400 KVA on 4 pole Structure with allied material i.e. 5 No. Earth, 630 Amp ACB Panel + 2 MCBs 400 Amp.) Detail of P/M T/Fs S/D No. 1 = 98 nos. (Total) - 4 nos (Proposed) S/D No. 2 = 200 nos. (Total) - 8 nos. (Proposed) S/D No. 4 = 209 nos. (Total) - 8 Nos. (Proposed)	2027-28	1.44	0.38	1.82	2.15	The above proposal have been made to replace the old outdated obselete and underrated transformer prone to the repeated failures leading to compromise in the power supply with new 400 KVA copper wound transformer along with controlling switches on every side for overall improvement of the system efficiency.
173	Division-1	Transformer Upgradation	Augmentation of 100/200 KVA Transformers and weeding out old, obsolete, outdated 300/315 KVA Aluminium wound (undergone multiple repairs) with 400 KVA (400 KVA on 4 pole Structure with allied material i.e. 5 No. Earth, 630 Amp ACB Panel + 2 MCBs 400 Amp.) Detail of P/M T/Fs S/D No. 1 = 98 (Total) - 2 nos (Proposed) S/D No. 2 = 200 nos (Total) - 4 nos (Proposed) S/D No. 4 = 209 nos (Total) - 4 nos (Proposed)	2027-28	0.75	0.25	1.01	1.19	The above proposal have been made to replace the old outdated obselete and underrated transformer prone to the repeated failures leading to compromise in the power supply with new 400 KVA copper wound transformer along with controlling switches on every side for overall improvement of the system efficiency.
174	Division-1	Transformer Upgradation	Augmentation of existing 750/800 KVA Transformers (old one, undergone multiple repairs) and weeding out old, obsolete, outdated infrastructure with new 1000 KVA copper wound transformer in Indoor Substation of Division-1 Detail of I/D T/Fs S/D No. 1 = 12 nos. (Total) - 1 no (Proposed) S/D No. 2 = 24 nos. (Total) - 1 no (Proposed) S/D No. 4 = 26nos. (Total) - 2 no. (Proposed)	2027-28	0.51	0.21	0.72	0.86	The above proposal have been made to replace the old outdated obselete and underrated transformer prone to the repeated failures leading to compromise in the power supply with new 1000 KVA copper wound transformer along with controlling switches on every side for overall improvement of the system efficiency.
175	Division-1	Transformer Upgradation	Augmentation of existing 750/800 KVA Transformers (old one, undergone multiple repairs) and weeding out old, obsolete, outdated infrastructure with new 1000 KVA copper wound transformer in Indoor Substation of Division-1 Detail of I/D T/Fs S/D No. 1 = 12 nos. (Total) - 1 no (Proposed) S/D No. 2 = 24 nos. (Total) - 1 no (Proposed) S/D No. 4 = 26nos. (Total) - 2 no. (Proposed)	2027-28	0.51	0.21	0.72	0.86	The above proposal have been made to replace the old outdated obselete and underrated transformer prone to the repeated failures leading to compromise in the power supply with new 1000 KVA copper wound transformer along with controlling switches on every side for overall improvement of the system efficiency.
176	Division-3	Transformer Upgradation	Augmentation of 100 KVA P/M T/F & 200KVA P/M T/F with new 400 KVA P/M T/F near Dispensary, Sector-28-B, and mtc Booth of electricity Colony, Sector-28-B for deloading existing 11 KV I/D S/STN 28-B under the jurisdiction of CPDL 'OP'S/Divn. No.3,Sec.18,Chd Site: -near dispensary, Sector 28-B and MTC Booth of Electricity Colony, Sector 28-B	2027-28	0.27	0.05	0.31	0.37	The existing transformers are aged old and overloaded. The replacement of these transformer with higher capacity transformer is proposed for meeting the load growth of the area.
177	Division-3	Transformer Upgradation	Replacement and augmentation of existing Outlived T/F/s of capacity of 630/750/800 KVA with 1000 KVA copper wound T/Fs to increase the system efficiency and to reduce the T & D losses under the jurisdiction of CPDL 'OP'S/Div. no-3,UT, Chd.I/D sub station sec-19 Site: - I/D S/Stn. Sector 19	2027-28	1.20	0.03	1.23	1.45	The existing transformers are aged old and overloaded. The replacement of these transformer with higher capacity transformer is proposed for meeting the load growth of the area.
178	Division-3	Transformer Upgradation	Replacement and augmentation of existing Outlived T/F/s of capacity of 630/750/800 KVA with 1000 KVA copper wound T/Fs to increase the system efficiency and to reduce the T & D losses under the jurisdiction of CPDL 'OP'S/Div. no-3,UT, Chd I/D sub station sec-27 Site: -I/D S/Stn. sector 27	2027-28	1.20	0.03	1.23	1.45	The existing transformers are aged old and overloaded. The replacement of these transformer with higher capacity transformer is proposed for meeting the load growth of the area.
179	Division-3	Transformer Upgradation	Replacement and augmentation of existing old outlived 630/800 KVA with 1000 kVA Copper Wound for improvement of position of power supply under the jurisdiction of S/D No. 6, U.T., Chandigarh Site: - 11 kV I/D S/Stn. Sec 30 S/S, U.T., Chd.	2027-28	0.60	0.02	0.62	0.73	The existing transformers are aged old and overloaded. The replacement of these transformer with higher capacity transformer is proposed for meeting the load growth of the area.

S.No	Division/ GSS	Category	Scheme Description	FY	Material Cost (In Crores)	Service Cost (In Crores)	Scheme Cost (In Crores)	Scheme Cost (Incl GST @ 18%)	Justification
180	Division-3	Transformer Upgradation	Replacement and augmentation of existing old outlived 630/750/800 kVA with 1000 kVA Copper Wound D.T. for improvement of position of power supply under the jurisdiction of S/D No. 6, U.T., Chandigarh Site: -11 kV I/D S/Stn. Sec 49 S/S, U.T., Chd.	2027-28	0.60	0.02	0.62	0.73	The existing transformers are aged old and overloaded. The replacement of these transformer with higher capacity transformer is proposed for meeting the load growth of the area.
181	Division-3	Transformer Upgradation	Replacement of old and overloaded P/M T/F/s of capacity of 100/200/300KVA with 400 KVA copper wound T/Fs under the jurisdiction of Sub Division No. 7, Chd Site: - Near House No. 2757, near Booth No. 115, Back side SCO 396, near SCO 215 (In Park), custom colony in sector 37	2027-28	1.60	0.28	1.88	2.22	The existing transformers are aged old and overloaded. The replacement of these transformer with higher capacity transformer is proposed for meeting the load growth of the area.
182	Division-2	Transformer Upgradation	Replacement of outlived and multiple time repaired existing transformer of capacity 3	2028-29	0.22	0.06	0.27	0.32	Replacement of outlived and multiple time repaired transformer with new transformer of same capacity
183	Division-2	Transformer Upgradation	Replacement of outlived and multiple time repaired existing transformer of capacity 3	2028-29	0.22	0.06	0.27	0.32	Replacement of outlived and multiple time repaired transformer with new transformer of same capacity
184	Division-4	Transformer Upgradation	Replacement of existing 76 nos. outlived/obsolete/overloaded 200 kVA pole mounting transformers with proposed 315 kVA P/M T/F under the jurisdiction of CPDL, Electy (OP) Sub Division No. 10, Sector-40 Chandigarh	2028-29	1.80	0.48	2.28	2.69	Replacement of old outdated /outlived transformer with higher capacity in view of increasing load
185	Division-1	Transformer Upgradation	Augmentation of 100/200 KVA Transformers and weeding out old, obsolete, outdated 300/315 KVA Aluminium wound (undergone multiple repairs) with 400 KVA (400 KVA on 4 pole Structure with allied material i.e. 5 No. Earth, 630 Amp ACB Panel + 2 MCBs 400 Amp.) Detail of P/M T/Fs S/D No. 1 = 98 (Total) - 2 nos (Proposed) S/D No. 2 = 200 nos (Total) - 4 nos (Proposed) S/D No. 4 = 209 nos (Total) - 4 nos (Proposed)	2028-29	0.74	0.25	1.00	1.18	The above proposal have been made to replace the old outdated obselete and underrated transformer prone to the repeated failures leading to compromise in the power supply with new 400 KVA copper wound transformer along with controlling switches on every side for overall improvement of the system efficiency.
186	Division-1	Transformer Upgradation	Augmentation of existing 750/800 KVA Transformers (old one, undergone multiple repairs) and weeding out old, obsolete, outdated infrastructure with new 1000 KVA copper wound transformer in Indoor Substation of Division-1 Detail of I/D T/Fs S/D No. 1 = 12 nos. (Total) - 1 no (Proposed) S/D No. 2 = 24 nos. (Total) - 1 no (Proposed) S/D No. 4 = 26nos. (Total) - 2 no. (Proposed)	2028-29	0.51	0.21	0.72	0.86	The above proposal have been made to replace the old outdated obselete and underrated transformer prone to the repeated failures leading to compromise in the power supply with new 1000 KVA copper wound transformer along with controlling switches on every side for overall improvement of the system efficiency.
187	Division-3	Transformer Upgradation	Replacement and augmentation of existing Outlived T/F/s of capacity of 630/750/800 KVA with 1000 KVA copper wound T/Fs to increase the system efficiency and to reduce the T & D losses under the jurisdiction of CPDL 'OP S/Div. no-3,UT, Chd I/D sub station sec-18 Site: -I/D S/Stn. Sector 18	2028-29	0.60	0.02	0.62	0.73	The existing transformers are aged old and overloaded. The replacement of these transformer with higher capacity transformer is proposed for meeting the load growth of the area.
188	Division-2	Transformer Upgradation	Replacement of outlived and multiple time repaired existing transformer of capacity 315 KVA with5 new 400 kVA Transformer under the Juridriction of Sub- division 8 area to improve the system reliability and quality of power supply	2029-30	0.22	0.06	0.27	0.32	Replacement of outlived and multiple time repaired transformer with new transformer of same capacity
189	Division-2	Transformer Upgradation	Replacement of outlived and multiple time repaired existing transformer of capacity 315 KVA with 5 new 400 kVA Transformer under the Juridriction of Sub- division 5 area to improve the system reliability and quality of power supply	2029-30	0.22	0.06	0.27	0.32	Replacement of outlived and multiple time repaired transformer with new transformer of same capacity
190	Division-4	Transformer Upgradation	Replacement of existing 76 nos. outlived/obsolete/overloaded 200 kVA pole mounting transformers with proposed 315 kVA P/M T/F under the jurisdiction of CPDL, Electy (OP) Sub Division No. 10, Sector-40 Chandigarh	2029-30	1.30	0.34	1.64	1.94	Replacement of old outdated /outlived transformer with higher capacity in view of increasing load
191	Division-1	Transformer Upgradation	Augmentation of 100/200 KVA Transformers and weeding out old, obsolete, outdated 300/315 KVA Aluminium wound (undergone multiple repairs) with 400 KVA (400 KVA on 4 pole Structure with allied material i.e. 5 No. Earth, 630 Amp ACB Panel + 2 MCBs 400 Amp.) Detail of P/M T/Fs S/D No. 1 = 98 (Total) - 2 nos (Proposed) S/D No. 2 = 200 nos (Total) - 4 nos (Proposed) S/D No. 4 = 209 nos (Total) - 4 nos (Proposed)	2029-30	0.82	0.38	1.20	1.41	The above proposal have been made to replace the old outdated obselete and underrated transformer prone to the repeated failures leading to compromise in the power supply with new 400 KVA copper wound transformer along with controlling switches on every side for overall improvement of the system efficiency.
192	Division-1	Transformer Upgradation	Augmentation of existing 750/800 KVA Transformers (old one, undergone multiple repairs) and weeding out old, obsolete, outdated infrastructure with new 1000 KVA copper wound transformer in Indoor Substation of Division-1 Detail of I/D T/Fs S/D No. 1 = 12 nos. (Total) - 1 no (Proposed) S/D No. 2 = 24 nos. (Total) - 1 no (Proposed) S/D No. 4 = 26nos. (Total) - 2 no. (Proposed)	2029-30	0.51	0.21	0.72	0.86	The above proposal have been made to replace the old outdated obselete and underrated transformer prone to the repeated failures leading to compromise in the power supply with new 1000 KVA copper wound transformer along with controlling switches on every side for overall improvement of the system efficiency.
193	Division-3	Transformer Upgradation	Replacement and augmentation of existing Outlived T/F/s of capacity of 630/750/800 KVA with 1000 KVA copper wound T/Fs to increase the system efficiency and to reduce the T & D losses under the jurisdiction of CPDL 'OP S/Div. no-3,UT, Chd I/D sub station sec-21 Site: -I/D S/Stn. Sector 21	2029-30	0.60	0.02	0.62	0.73	The existing transformers are aged old and overloaded. The replacement of these transformer with higher capacity transformer is proposed for meeting the load growth of the area.

Chandigarh Power Distribution Ltd. CPDL

Annexure 5: Detailed scheme of Overhaul of Metering Infrastructure

S,No,	Particulars	FY 26		FY 27		FY 28		FY 29		FY 30	
		Qty	Amount (Rs. Cr.)	Qty	Amount (Rs. Cr.)	Qty	Amount (Rs. Cr.)	Qty	Amount (Rs. Cr.)	Qty	Amount (Rs. Cr.)
A	**New connection and replacements**										
A1a	**New Connection including Load Enhancement**										
A1ai	66 kV	1	6.30	1	6.30						
A1aii	11 kV	5	0.15	6	0.19	7	0.22	7	0.22	7	0.22
A1aiii	LTCT	137	0.56	137	0.56	137	0.56	137	0.56	137	0.56
A1aiv	3 Phase LT (Urban/Industry/Commercial)	1,269	1.41	1,230	1.40	1,254	1.43	1,279	1.46	1,305	1.49
A1av	Single Phase LT (Urban/Commercial)	4,894	2.57	3,744	2.37	3,819	2.42	3,895	2.46	3,973	2.51
A1avi	Single Phase Prepaid Meter/Smart Meters			500	0.55	500	0.55	400	0.44	297	0.33
A1avii	Three Phase Prepaid Meter/Smart Meters			220	0.36	225	0.37	226	0.37	234	0.38
	Sub total A1a		**10.99**		**11.73**		**5.54**		**5.51**		**5.49**
A1b	Net Metering Consumers										
A1bi	Single Phase SMART Net Meter including SMART Generation Meter	1,000	0.52	200	0.10	200	0.10	200	0.10	100	0.05
A1bii	Three Phase SMART Net Meter including SMART Generation Meter	3,500	3.12	700	0.62	1,000	0.89	1,000	0.89	200	0.18
A1biii	LT CT SMART Net Meter including SMART Generation Meter	250	0.48	90	0.17	90	0.17	90	0.17	90	0.17
A1biv	11/33 kV SMART Net Meter including SMART LTCT Generation Meter	5	0.01	10	0.02	10	0.02	10	0.02	10	0.02
	Sub total A1b		**4.12**		**0.92**		**1.18**		**1.18**		**0.42**
	Total A1		**15.11**		**12.64**		**6.73**		**6.70**		**5.91**
A2	**Replacement of Meter due to Burnt/defective/stolen meter**										
A2ai	3 Phase 4 Wire HT	25	0.06	25	0.06	25	0.06	26	0.07	27	0.08
A2aii	3 Phase 4 Wire LTCT Meter , LTCT's & Meter box	550	0.94	-	-	50	0.12	100	0.26	105	0.30
A2aiii	3 Phase 4 Wire LTCT Meter , LTCT's & Meter box For DT metering & Feeder Meter	-	-	20	0.05	25	0.06	20	0.05	21	0.06
A2aiv	3 Phase 4 Wire LT Whole Current	2,000	1.05	-	-	-	-	750	0.78	788	0.90
A2av	1 Phase 2 Wire LT Whole Current	10,000	1.45	-	-						
A2avi	3 Phase 4 Wire LT Whole Current Net Meter	100	0.07	-	-	1,200	0.71	2,400	1.56	2,520	1.80
A2avii	1 Phase 2 Wire LT Whole Current Net Meter	100	0.02	-	-						
A2aviii	11kV Metering Cubicle with instrument Transformer	60	0.39	60	0.39	60	0.39	60	0.39	60	0.39
	Total A2		**3.98**		**0.50**		**1.33**		**3.10**		**3.53**
	Total A		**19.09**	-	**13.14**	-	**8.06**	-	**9.80**	-	**9.43**
B	**Feeder and DT meter replacement**										
B1	Feeder Metering	460	0.98	5	0.01	10	0.02	10	0.02	5	0.01
B2	LTCT Metering of Transformers										
B2a	25&100 KVA	53	0.19	230	0.80	10	0.03	10	0.03	10	0.03
B2b	160 & 250	100	0.88	1,067	9.40	740	6.52	40	0.35	30	0.26
B2c	400 KVA										
	Total B		**2.04**		**10.21**		**6.58**		**0.41**		**0.31**
C	**AMI Implementation**										
C1	**Meters**										
C1a	Single Phase Meters	10,000	2.16	65,000	14.03	45,000	9.71	15,000	3.24	15,000	3.24
C1b	Three Phase Meters	3,500	3.12	40,000	35.65	26,000	23.17	-	-	-	-
C1c	LTCT Meters	500	0.95	2,000	3.81	500	0.95	-	-	-	-
C1d	HT Meters	600	0.99	200	0.33	10	0.02	-	-	-	-
	Total C1		**7.22**		**53.82**		**33.85**		**3.24**		**3.24**
C2	**AMI implementation: IT infrastructure**										
C2a	AMI – Infra	1	5.00	1	4.58	-	-	-	-	-	-
C2b	RF Canopy	-		-	-	-	-	-	-	-	-
C2c	HES	1	1.18	1	1.77	1	0.62	1	0.12	1	0.12
C2d	MDM	1	2.00	1	1.46	1	0.47	1	0.47	1	0.47
	Total C2		**8.18**		**7.81**		**1.09**		**0.59**		**0.59**
C3	Power Quality Meter for HT/EHT Consumers			10	0.54			10	0.54		
	Total C		**15.40**		**62.17**		**34.94**		**4.37**		**3.83**
D	**Testing Bench**										
D1	Meter Test Bench (NABLAB)	1	0.85								
D2	CTPT Analyzer	1	0.31			1	0.31	1	0.02		
D3	Meter Reading instruments	5	0.02								
D4	Meter Testing Equipment 1 Phase	10	0.09								
D5	Meter Testing Equipment 3 Phase	5	0.11								
D6	Metering Testing Tools - Fork lift and other tools & tackles	1	0.30	1	0.18	1	0.12	1	0.12	1	0.12
	Total D		**1.67**		**0.18**		**0.43**		**0.14**		**0.12**
	Total (A+B+C+D)		**38.21**		**85.70**		**50.01**		**14.72**		**13.69**

Annexure 6: Detailed scheme of Automating Field Operations

S. No.	Description	UOM	FY 25-26		FY 26-27		FY 27-28		FY 28-29		FY 29-30	
			Qty	Amount (Rs. Cr.)	Qty	Amount (Rs. Cr.)	Qty	Amount (Rs. Cr.)	Qty	Amount (Rs. Cr.)	Qty	Amount (Rs. Cr.)
A1	**Automation-SAS/ SCADA/ FANA/ Communication Infra**											
A1.1	Substation Automation by installing RTU with panel, MFMs, wiring and Cabling etc.	Qty	6	0.68	7	0.81		-		-		
A1.1	Upgradation of existing Substation Automation by installing MFMs, wiring and Cabling etc.	Qty	6	0.19								
A1.2	SCADA upgradation, Web Application, addition of Workstations for Control Room Operation with SCADA operator license	LS	1	2.00	1	0.80		-		-	1	2.00
A1.3	ADSS/OPGW Fibre implementation for Substation connnectivity and Differential protection	Meter	8,000	0.10	15,000	0.20	8,000	0.11	9,000	0.13	12,000	0.18
A1.4	Under ground Fibre connectivity for Substation and Differential protection	Meter	9,000	0.17	30,000	0.58	6,000	0.13	6,000	0.13	1,000	0.02
A1.5	ADMS and Smart Grid initiative: NCA, FLISR, State estimation, Volt-Var	LS		-	1	6.20	1	2.13		-	1	3.17
A1.7	FPIs: Communicable Fault passage Indicators on overhead network	Number		-	198	0.20	198	0.20	200	0.20		-
A1.8	Network Planning Tool : Distribution network model and system analysis like Load flow, short circuit fault analysis, load balancing, Optimal capacitor placement and sizing	LS		-	1	0.80		-		-		-
A1.9	DERMs application for 25,000 RE prosumers	LS		-		-		-	1	3.02		
A1.10	Implementation of Smart grid Technologies/IoT based sensors for HV Switchgear, Voltage sensors for LV network	LS		-		-	1	0.43		-		-
A1.11	Testing Tools, protocol analyser for SCADA and relays	LS	1	0.10		-		-		-		-
A1.12	Upgradation / replacement of existing CCTV Surveillance System System	Qty	5	0.14	8	0.25	9	0.18	3	0.06	3	0.06
A1.13	IP PBX & Attendance System	Qty	16	0.20	5	0.05	2	0.02	3	0.04	3	0.04
	Subtotal (A1)			3.59		9.89		3.20		3.57		5.47
A2	**Business Continuity of GIS and associated Processes**											
A2.1	GIS Implementation(Survey for electrical utility - HT & LT Line pole & transformer - overhead (with linemen) with data ingestion and Consumer indexing, Asset painting	LS	1	4.60				-		-		-
A2.2	Asset verification, listing, Painting and updation	Ls			1	0.42	1	0.22			1	0.24
A2.3	Procurement of hand held device	Qty	5	0.12	4	0.09		-		-		-
A2.4	Procurement of cable locator for Under ground cable identification.	Qty			1	0.06		-		-		-
A2.5	Procurement of nano category drone	Qty			2	0.09		-		-		-
A2.6	Software license for drone data processing	Qty			1	0.07		-		-		-
A2.7	Weather Station Installation at required locations.	Qty		-	4	0.22		-		-		-
A2.8	Procurement of drone with thermal sensor camera for hotspot identification.	Qty		-	1	0.14		-	1	0.14		-
A2.9	Implementation of drone based LiDAR technology for vegetation management	LS		-		-		-	1	0.46		-
A2.10	Procurement satellite Imagery for land base updation	Sq.KM		-		-		-	114	0.24		
A2.11	Procurement of specialized plotter for printing network maps and technical drawings.	Qty	1	0.10								
	Sub-Total (A2)			4.81		1.09		0.22		0.84		0.24
	Total			8.40		10.97		3.42		4.41		5.71