DISTRIBUTION INTEGRATED INVESTMENT PLAN (DIIP)

(2025-26 to 2029-30)

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Section –I Executive Summary

1.1 Introduction

Sukkur Electric Power Company (SEPCO), incorporated as a Public Limited Company established on August 2010, is responsible for the delivery of electricity to over 0.83 million consumers of 10 districts of province of Sindh, Pakistan as set out in Distribution License No.21/DL/2011 granted by NEPRA.

Sukkur Electric Power Company (SEPCO) filed a Multi year Tariff Petition with National Electric Power Regulatory Authority (NEPRA) Tariff for the the FY-2020-21 to FY-2024-25, and submitted its Distribution Integrated Investment Plan,as part of Muli Year Tariff Petition.

NEPRA again vide Letter No. NEPRA/Director (Tech)/LAD-11/8292-98/Dated:-05.06.2024. Directed all Discos to submit the DIIP/Investment Plan on NEPRA approved formats for the next five years “period FY-2025-26 to FY-2029-30”,

The Board of Directors and Management of Sukkur Electric Power Company (“SEPCO”) being cognizant of importance of Business Planning in shaping and the future of the Company and steering it through the challenges thereof. The SEPCO is also well aware of multiple legal, policy, regulatory and governance requirements concerning independent future outlook, resulting from its multidimensional roles.

1.2 Purpose and Goal of Investment Plan

Investment Plan: - An Investment Plan / Business Plan is written narrative document that describes what an enterprise intends to accomplish and the mechanism for accomplishing those intensions. Presently SEPCOs T&D Losses, AT&C Losses position is below the bench mark set by NEPRA, therefore this Investment Plan is prepared to achieve improvement towards NEPRA target.

For most entities Investment Plan is a dual purpose document used for inside and outside the organization, inside the entity Plan helps to develop a road map to follow and execute its plans and strategies and outside the entity it introduces potential investors and stakeholders to the business opportunities.

With reference to para-23 of NEPRA guidelines for determination of Consumer End Tariff (Methodology & Process), 2015 whereby Distribution Companies are required to submit a Five Years Investment Plan, prior to filing of next MYT petitions.

SEPCO previously submitted Five year Investment Plan for Tariff control period from 2020-21 to 2024-25 will expire in June 2025, therefore new Five years Integrated Investment Plan is required to be submit for the next tariff control period 2025-26 to 2029-30.

1.3 Major Planning Situation:

Sukkur Electric Power Company supplies Electricity to the 10 districts which have a population of 16623149. By the end of FY, 2023-24, SEPCO had 824079 connections, out of which 657774 were Domestic, 127741 Commercial, 10106 Agricultural, 14252 Industrial & Bulk, and 14206 others.

SEPCO purchased 4023.22 Million Units during FY 2023-24 and sold 2625.59 Million Units with a loss of 1397.63 Million Units (34.74 %) in its network.

In above situation SEPCO needs to prepare concrete Plan for which require a concrete investment plan,

a) To increase the capacity of the system (Transmission Lines & Grid stations) to cope / handle the higher loads.
b) To reduce the losses in the network
c) To improve the Reliability and Quality (voltage, frequency and power factor) of Electric Power.
d) To avoid forced load shedding,
e) To reduce un-necessary O&M cost (especially on old & deteriorated circuits).
f) To maintain and upgrade existing system, in-accordance with Generation from NTDCL's Transmission System plan,
g) To Plan, Design & Implement the system expansion to enhance the capacity for the higher load demand(s).
h) Also other functions mentioned in companies Integrated Investment Plan.

1.4 SEPCO Investment Plan (Optimal Achievable Case)

The Distribution Integrated Investment Plan of SEPCO prepared for the period 2025-26 to 2029-30 required for 2nd MYT of SEPCO will cover following main heads.

- **Infrastructure development Plans** including STG works, ELR,DOP, APMS (Assets Performance Monitoring System).
- **Commercial Improvement Plans**, including installation of ABC against bared LT conductors, replacement of conventional meters with AMI/AMR, creation of Model Sub Divisions, new Custoemer Service centers, Consumers Census, Special desk for industrial consumers,bifurcation of industrial dominated feeders.
- **Financial improvement Plan**, including ERP implemetation, Integrated billiing system, software , system study for T&D Losses assessment, other IT Resources , GIS Enterprise solution for GIS Mapping of HT/LT/Consumers, Health Safety & Environment (HSE) Plan including removal of hazards, trainings, installation of earthing on HT/LT/Distribution transformers, provision of T&P and PPE, Civil Works Plan and Vehicles.
- **HSE / Functional improvement Plan**, including, Health Safety & Environment (HSE) Plan including removal of hazards, trainings, installation of earthing, provision of T&P and PPE, and Vehicles and safety dresses for GSO Staff.
- **Communication Improvement Plan** by , improving internal and external communication,and feasi 11 kv level.
- **Integrated Human Resources Improvement Plan** includinh Revamping of Training Centers, capacity building of Officers and official and etc .
- **Civil Works Plan**, Including Constuction of neww offices, repair of offices and residemtial buildings and meeting emergrency works.

1.5 Summary of Main items of Investment Plan:

SUMMARY OF MAIN ITEMS OF INVESTMENT PLAN	
Secondary Transmission & Grids (STG) Plan	
02 No.	New Grid Station
07 No.	Conversion of 66kV Grid Stations into 132kV Voltage level
762 km	New Transmission Line
59 km	Rehabilitation of Transmission Line
06 No	Augmentation of Power Transformers.
13 No	New Line Bays
10 No	Extension of Power Transformers
10 No	132 Kv Capacitor Banks
16 No	11 Kv Capacitor Banks
Energy Loss Reduction (ELR) Plan	
60 No.	11kV (HT) Proposals
60 No.	LT Proposals
2519 No	Replacement of Bared LT with ABC
239 No. (34 MVA)	Various Capacity Distribution Transformers
272 Km	New HT Line
60 Km	Rehabilitation HT Line
27 km	New LT Line
180 nos.	11 Kv Capacitor on 11 kv Line
(Development of Power (DOP) Network for new consumers	
544 Km	New HT Line
212 km	New LT Line
1609 No.	Various Capacity Distribution Transformers
36265	New Customers
(**Assets Performance Monitoring System)**	
4815 Nos.	**APMS Installation**
Commercial Improvement Plan	
50000/80899 Nos	AMR Meters
50,0000 Nos.	Electronic / Solid State Meters
L/S	Consumer Census (M.Rs)
03 Nos.	Model Sub Divisions
19 Nos.	Establishment of customer care centers

SUMMARY OF MAIN ITEMS OF INVESTMENT PLAN	
01 No	Special Desk for industrial consumers
Integrated Financial Management Improvement Plan	
IT/MIS	
01 Project	ERP Implementation
01	Revamping the Internal Audit
L/S	IBS / Cyber Security/AMI
L/S	Software Licenses, System Study for T&D Losses, new software for Demand forecast, PSS-E & Misc.
L/S	Computers, Laptops, Printers,, Mobile phones of MMR
Functional improvement	
01 Project	GIS Enterprise solution
01 **Nos.**	Crane Mounted Trucks-08 Tons
02 **Nos.**	Crane Mounted Trucks-05 Tons
50 Nos.	Operational Vehicles (Pickup Manual Transmission)
Civil Works Plan	
	Construction of new office building and O&M of existing Buildings.
Health Safety & environment	
15 Nos.	Bucket Mounted trucks
136 nos.	Fire / Arc Proof uniform for GSO Staff
5903 Nos.	Removal of Hazards
1000 per year Lump Sum as per need	Earthing of HT/LT St:& T/F
173760 NOS.	T&P - PPE
Communication Improvement Plan	
L/S	External & Internal Communication with communication Material
Integrated Human Resources Plan	
2285 Nos.	**Capacity Building**
	Human Resources Management

1.6 Cost of the Projects (Optimal Achievable case)

Million Rs

S.No	Description	2025-26	2026-27	2027-28	2028-29	2029-30	Total
1	STG- Expansion	5,031	5,373	10,680	2,472	320	23,875
2	STG- Rehabilitation	0	0	0	0	0	0
3	Distribution Expansion	1683	2019	2250	2239	1674	9866
4	Distribution Rehabilitation	211	283	355	441	285	1575
5	APMS	645	1267	1338	0	0	3250
Infrastructure Development		7570	8942	14623	5152	2279	38566
Other Functions (Financial, HSE, Commercial, Communication, Functional & HR Improvement Plan							
6	Other Functions	5,357	3,968	2,729	2,650	2,860	17,565
7	Total Cost (M.Rs)	12,927	12,910	17,352	7,802	5,139	56,131
(-)	Consumer Contributions	644	858	1073	1073	644	4292
8	Net Investment Required	12283	12052	16279	6729	4495	51839

1.7 Financial Analysis:

The Financial benefits of the projects are as under:

Profit and loss account								**(Rs. In Mln)**
Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Revenue								
Electricity Turnover	78,148	100,240	130,254	136,087	146,077	157,467	169,523	184,901
Cost of Electricity	88,356	106,185	102,168	104,211	106,295	113,736	121,698	130,216
Gross Profit	(10,209)	(5,946)	28,087	31,876	39,781	43,731	47,825	54,684
Amortization of Deferred Credit	396	324	330	615	641	746	797	802
Net Profit	**(9,813)**	**(5,622)**	**28,417**	**32,491**	**40,422**	**44,477**	**48,622**	**55,486**
Operating Cost								
O&M Cost	12,302	17,587	19,752	22,407	26,151	29,758	34,125	39,246
Depreciation	1,864	1,704	1,705	1,790	1,933	2,030	2,193	2,368
Provision for doubtful debts	1,956	1,884	5,432	5,619	6,061	6,568	7,094	7,796
Total Expenses	**16,122**	**21,175**	**26,889**	**29,817**	**34,146**	**38,357**	**43,412**	**49,410**
Operating Profit	(25,935)	(26,796)	1,528	2,674	6,277	6,120	5,210	6,076
Other Income	1,991	1,952	1,884	2,570	2,698	2,833	2,975	2,975
EBIT	(23,944)	(24,844)	3,412	5,244	8,975	8,953	8,184	9,051
Financial Charges	15,564	1,640	1,640	1,580	2,402	2,500	2,255	2,355
EBT	(39,508)	(26,484)	1,772	3,664	6,573	6,453	5,929	6,696
Taxation	18	148	196	202	218	236	255	255
Profit/ (Loss) After Taxation	(39,526)	(26,336)	1,967	3,866	6,791	6,689	6,185	6,951

Despite sustained operational performance, the Equity of SEPCO has practically gone negative mainly due to inadequate tariffs and delayed implementation of adjustments thereof.

1.8 Sensitivity Analysis of Integrated Investment Plan:

Discount Rate	Discounted Benefits	Discounted Costs	Net Present Value	Benefit / Cost ratio
Project Financial Analysis				
20%	91236	47621	1.08	1.95
25%	71940	44263	1.27	1.63
Financial Internal Rate of Return (FIRR)=39.57%				
Project Sensitivity Analysis on 10% increase in cost				
20%	82112	47621	1.08	1.72
25%	64746	44263	1.27	1.46
Financial Internal Rate of Return (FIRR)=27.24%				
Sensitivity Analysis on 10% Decrease in Benefits				
20%	100359	52383	1.08	1.92
25%	79134	48689	1.27	1.63
Financial Internal Rate of Return (FIRR)=29.7%				
Sensitivity Analysis with 10% Increase in Cost & 10% Decrease in Benefits				
20%	82112	52383	1.08	1.57
25%	64746	48689	1.27	1.33
Financial Internal Rate of Return (FIRR)=25.24%				
Project Financial Analysis on 25% increase in cost				
20%	91236	59526	1.08	1.53
25%	71940	55329	1.27	1.30
Financial Internal Rate of Return (FIRR)-24.8%				
Project Economic Analysis				
20%	90845	47616	1.08	1.91
25%	71660	44262	1.27	1.62
Economical Internal Rate of Return (EIRR)= 29.6%				

Profit & Loss Accounts

Year	Income	O&M Expenses	Project Cost	Depreciation	Total Cost	Profit before tax	Tax	EAT
2025-26	4,484	388	12,927	452	13,767	(9,283)	807	(10,090)
2026-27	9,192	387	12,910	452	13,749	(4,558)	1,655	(6,212)
2027-28	14,085	521	17,352	607	18,480	(4,395)	2,535	(6,930)
2028-29	17,832	234	7,802	273	8,309	9,522	3,210	6,313
2029-30	20,537	154	5,139	180	5,473	15,064	3,697	11,367
	66,130	**1,684**	**56,131**	**1,965**	**59,779**	**6,350**	**11,903**	**(5,553)**

Cash Flow Statement

Year	Investment	Cash inflow	Annual O&M	Taxes	Total Outflow	Net Flow
2025-26	56130.88	4,484	388	807	1,195	3,289
2026-27		9,192	387	1,655	2,042	7,150
2027-28		14,085	154	3,697	3,851	10,234
2028-29		17,832	154	3,697	3,851	13,981
2029-30		20,537	154	3,697	3,851	16,686
2030-31		20,537	154	3,697	3,851	16,686

Pay Back Period			
Average Rate of Return(FIIR):	39.57%	Investment	56,130.88
		Net Cash Flow	
Amortization Factor	0.0225	68,026.54	5.7129

Section –II The Company's – Baseline:

2.1.1 History / Company Overview:

In 1950s, the Govt. of Pakistan (GoP) had decided to set up an independent and autonomous Authority to deal with all available water resources and power system network including power generation, transmission and distribution. The department was formed and named as Water and Power Development Authority (WAPDA). In 1980s, the power distribution network of WAPDA was sub-divided into eight Area Electricity Boards (AEB), Hyderabad was one of the AEBs among said Area Electricity Boards dealing with power distribution system.

Company history:

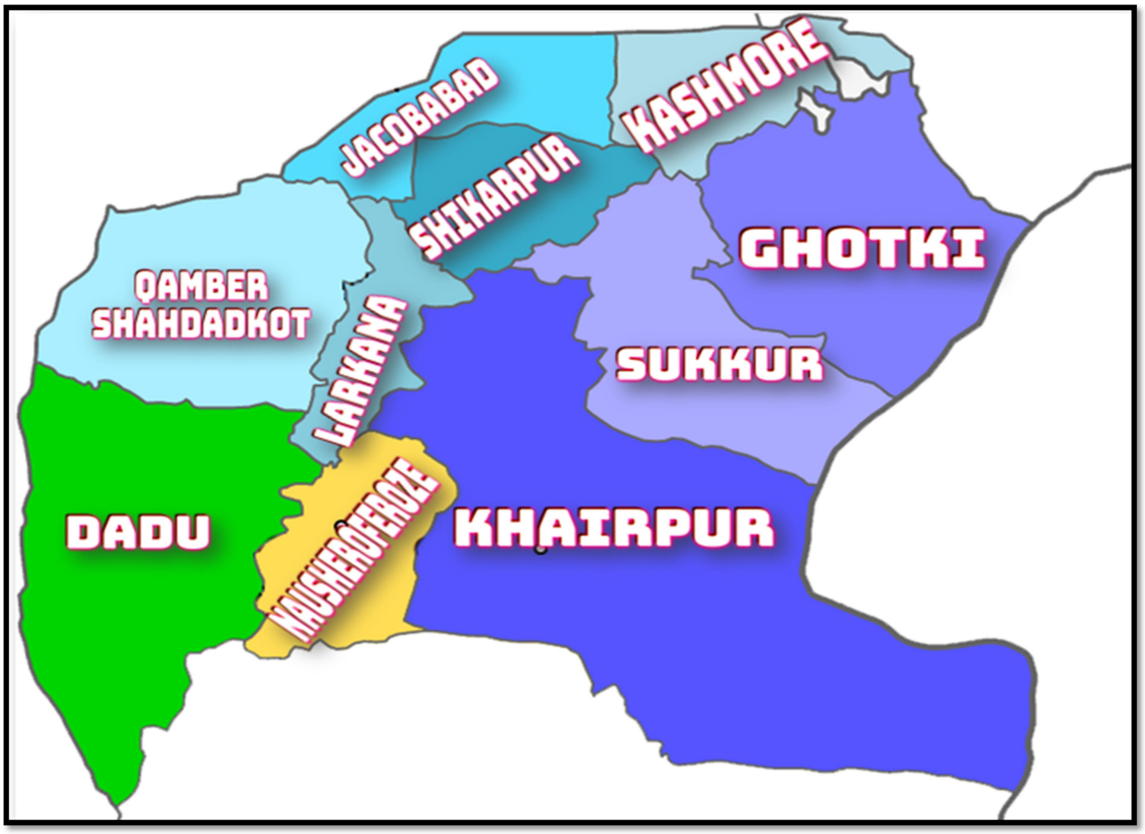
In 1998, WAPDA was dis-integrated into two main sectors PEPCO and WAPDA. Where, WAPDA was restricted to only deal with water resources as well as hydro power generation and PEPCO (Pakistan Electric Power Company) was formed as overall in-charge / Company of Thermal Power Generation (GENCOs: Generation Companies), Transmission (NTDC: National Transmission & Dispatch Company) and Distribution (DISCOs: Distribution Companies). PEPCO was formed as temporary in-charge Company of Pakistan Power Sector reforms; currently the PEPCO has been renamed as Power Planning and Monitoring Company (PPMC) Pvt. Limited to take macro monitoring and planning roles while leaving the micro-management of the affairs of individual companies to the respective Managements and the BODs of each company. In these circumstances utility companies DISCO came into exist and in Sukkur region named as SEPCO Sukkur Electric Power Company.

2.1.2 Market Analysis of SEPCO:

SEPCO is one of the X-WAPDA distribution companies, Market analysis of SEPCO for the period 2023-24, includes:
Residential: 48.2%, Commercial: 7.3%, Industrial: 17.1%, Agricultural: 3.5%, Public Lighting 9.4%, Bulk Supply 6.6 %, General Services 08.0%, and Others: 0.02% of total consumption. Growth Rate: of 2-3% per annum.

SEPCO sustained **34.74%** Transmission and Distribution Losses with billed amount of **Rs. 107.6 Billions** and recovered amount of **Rs. 72.2 Billions**, average Collection recorded at **67.1%.** Computed receivables recorded **Rs. 235.266 Billion,** including **Rs. 42.654 Billions** against Federal and Provincial Government at the end of the Business period 2023-24.

2.1.3 Geographic Coverage:

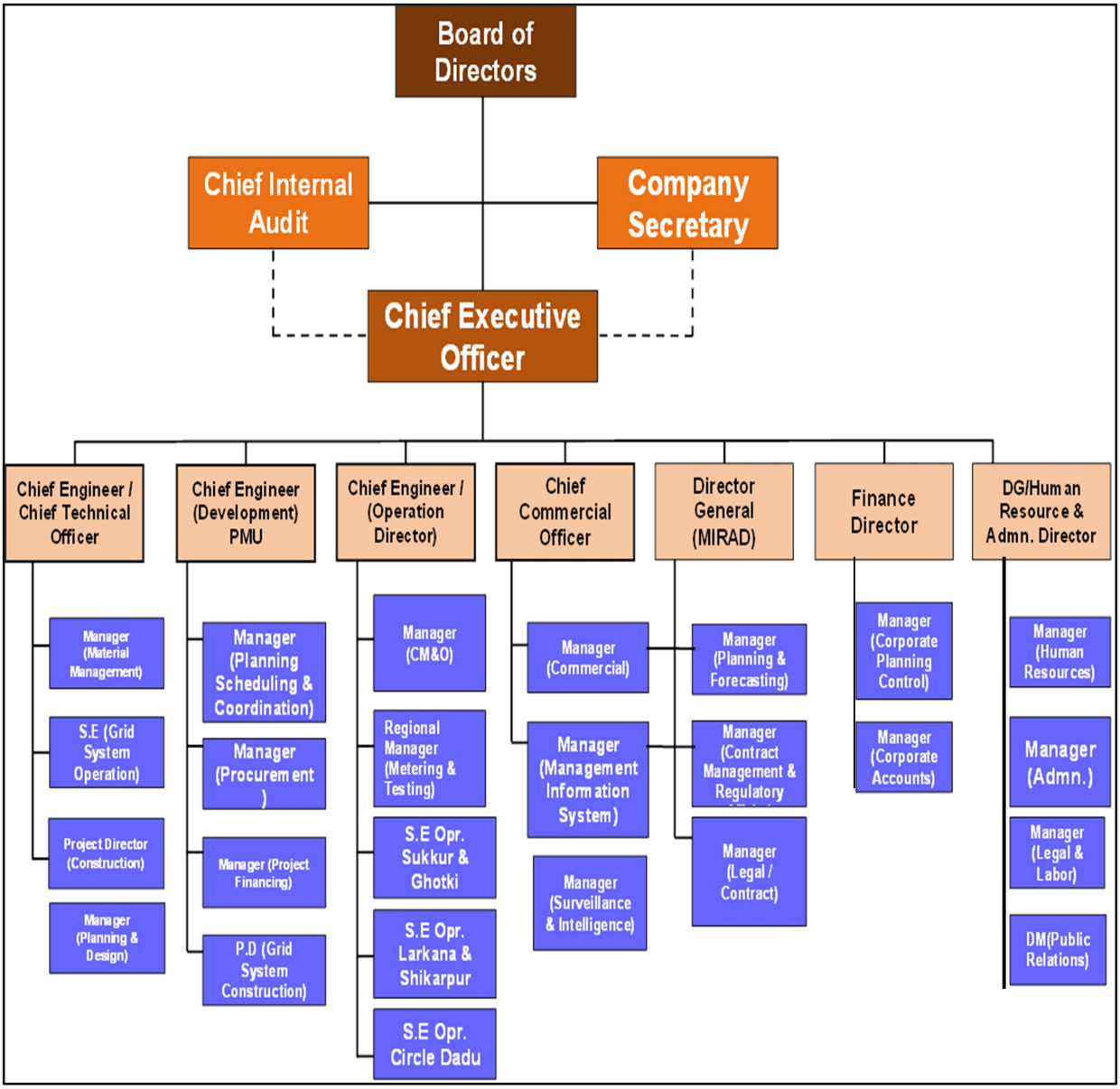


MAIN AREAS OF RESPONSIBILITY DISTRICTS

Service area comprises of 10 civil districts of Sindh Province, spanning a total service area of 56300 sq.km and 824079 consumers.

2.2 Company's Structure:

The Organizational structure of the Company under upcoming Wholesale (CTBCM) scenario is as under:



2.3.1 Corporate Governance:

A high priority is placed on corporate governance practices to ensure transparency, accountability, and efficiency in our operations.

Code of Corporate Governance for Public Sector Organizations have been fully adopted and implemented by SEPCO as per the principles and best practices across organization.

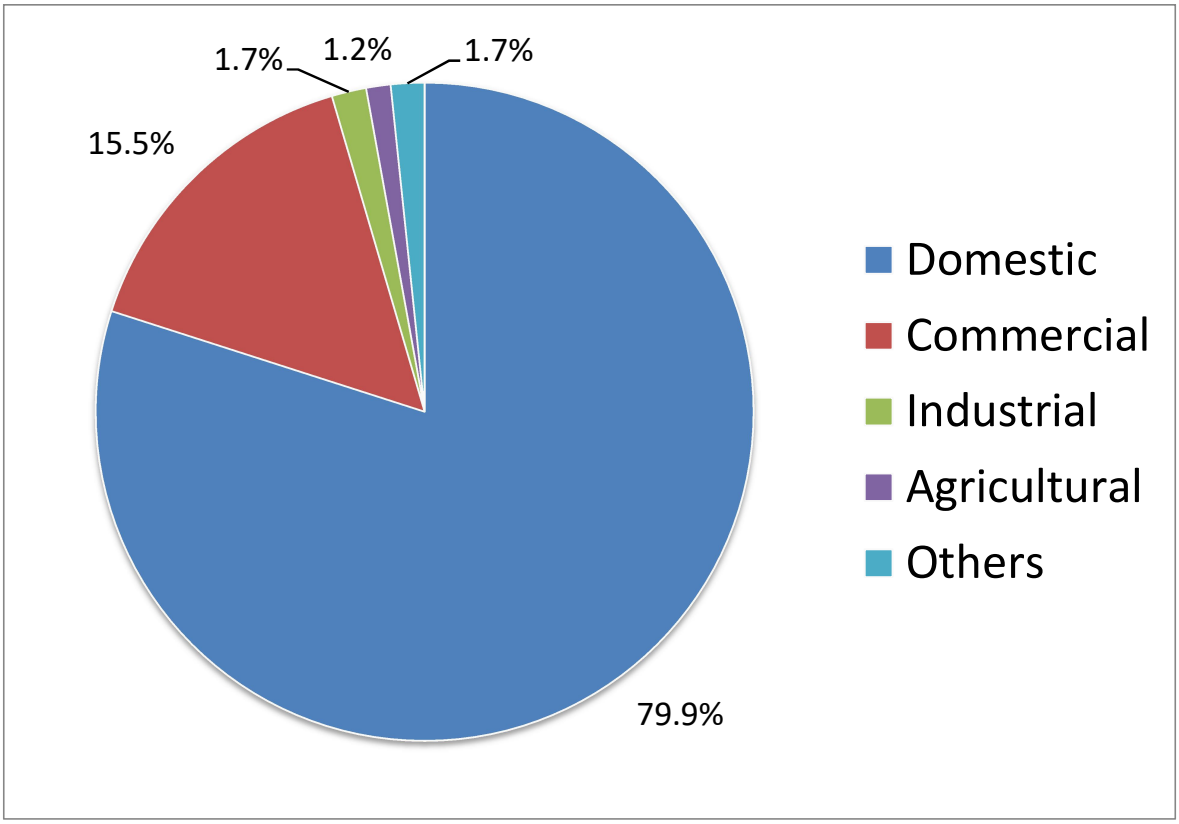
Board of Directors provides effective oversight of operations, ensuring that management follows ethical practices and complies with relevant laws and regulations.

SEPCO maintains transparency in financial reporting and operations. Effective mechanism has been put in place to ensure accountability at all levels of the organization.

2.4.2 Customers, Sales and Revenue Mixes:

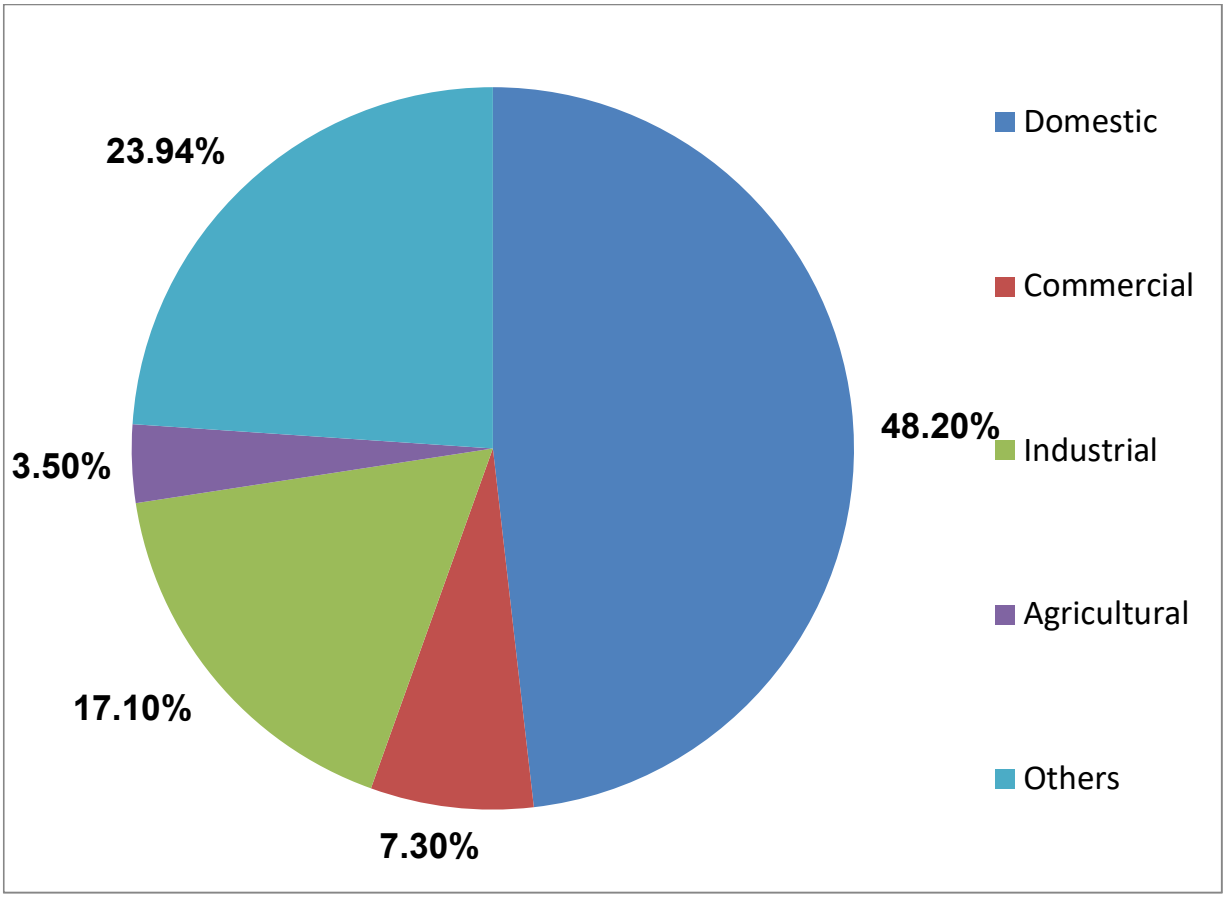
❖ **Customers %**

SEPCO Category-wise No. of Consumers			
Category of Consumers	**As on 30th June 2024**		%
	Unit	**Nos.**	
Domestic	Nos.	658826	79.9%
Commercial	Nos.	127788	15.5%
Industrial	Nos.	13726	1.7%
Agricultural	Nos.	10106	1.2%
Bulk Supply	Nos.	542	0.1%
Public Lighting	Nos.	486	0.1%
Residential colonies	Nos.	20	0.01%
Others/ general Service	Nos.	12585	1.5%
Total	Nos.	824079	100%



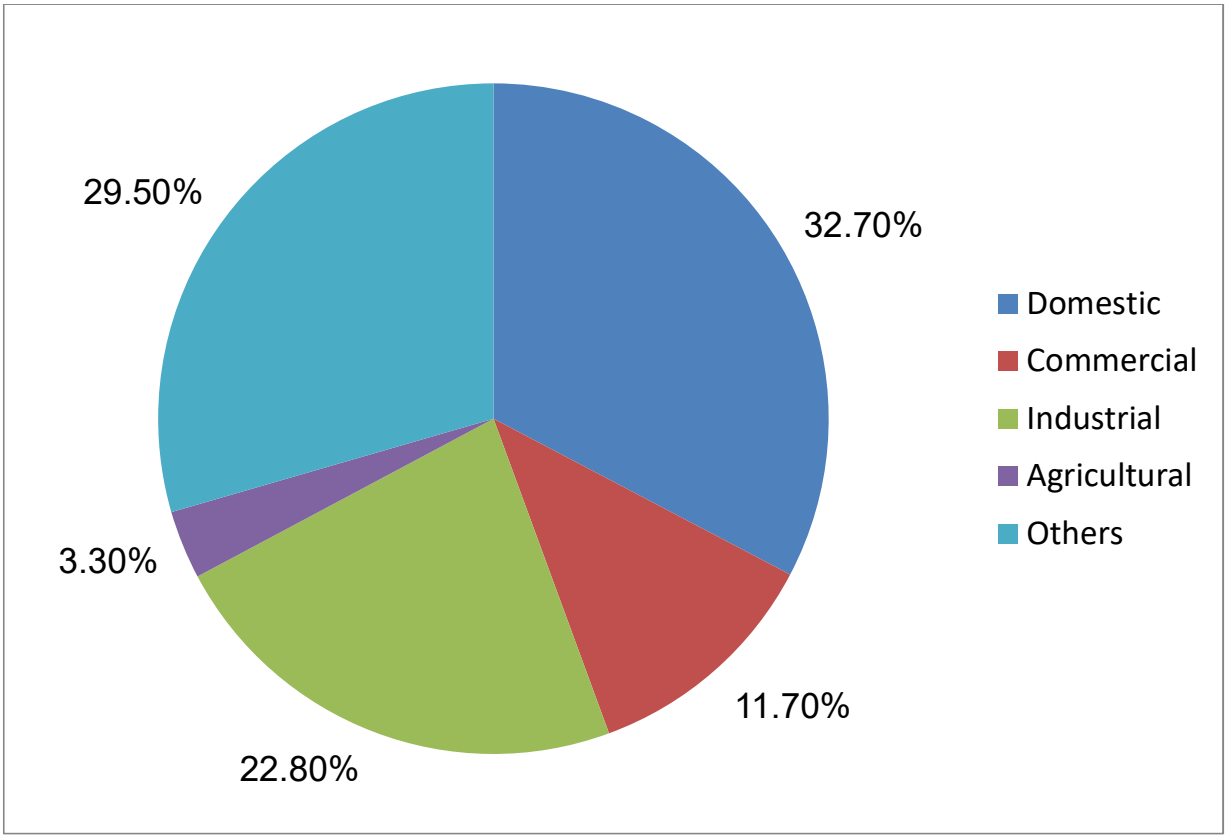
❖ **Sales Mix:**

SEPCO Category-wise Electricity Sold or Units Billed			
Category of Consumers	**Unit**	**2023-24**	%
Domestic	GWh	**1265.8**	48.2%
Commercial	GWh	**190.8**	7.3%
Industrial	GWh	**449.7**	17.1%
Agricultural	GWh	**90.6**	3.5%
Bulk Supply	GWh	**172.8**	6.6%
Public Lighting	GWh	**245.5**	9.4%
Res Colonies with industries	GWh	**0.6**	0.01
Others/ General service	GWh	**209.7**	8.0%
Total	GWh	**2625.6**	100.0%



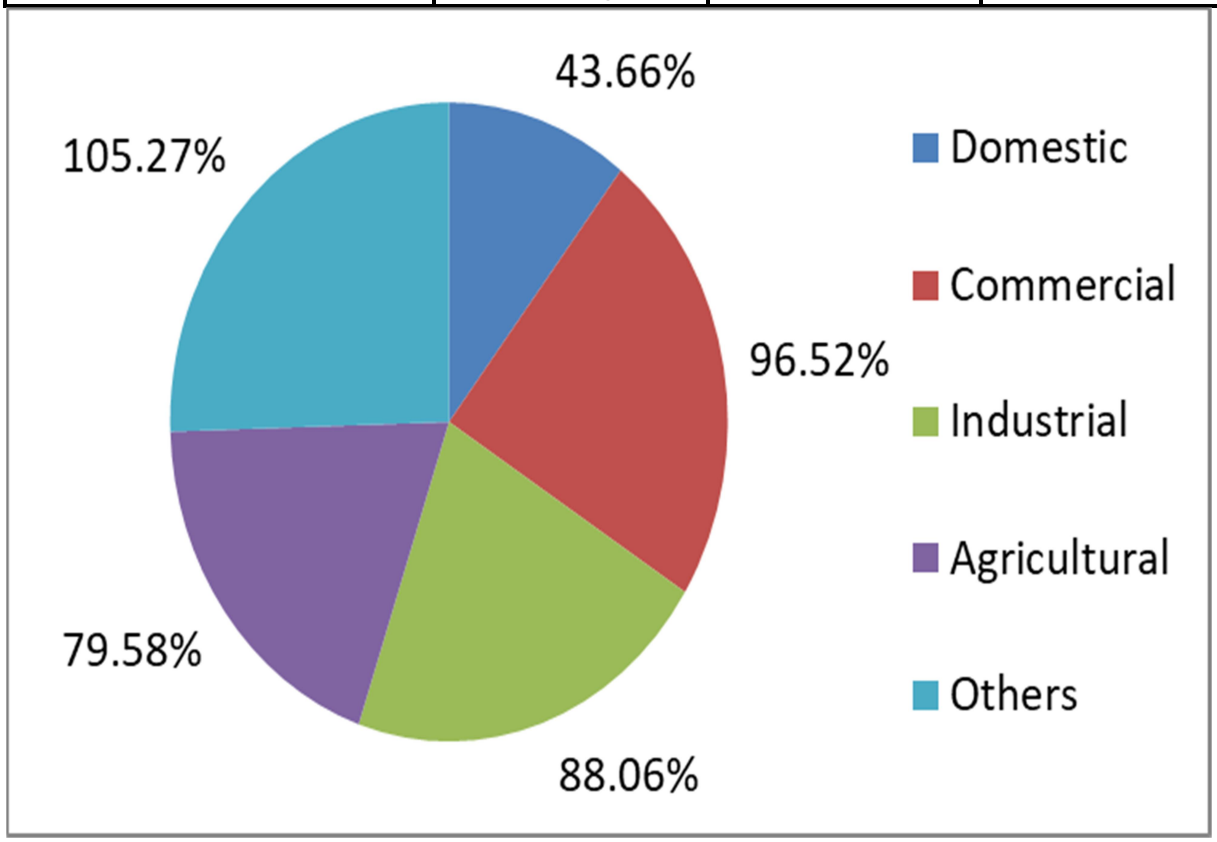
Amount Billed;

SEPCO Category-wise Amount of Units Billed			
Category of Consumers	**Amount of Billed Units**		
	Unit	**2023-24**	%
Domestic	Million Rupees	**36111**	32.7%
Commercial	Million Rupees	**12886**	11.7%
Industrial	Million Rupees	**25175**	22.8%
Agricultural	Million Rupees	**3672**	3.3%
Bulk Supply	Million Rupees	**9712**	8.8%
Public Lighting	Million Rupees	**12655**	11.5%
Residential colonies	Million Rupees	**34**	0.01
Others	Million Rupees	**10172**	9.2%
Total	Million Rupees	**110417**	100.0%



❖ **Amount Realized / Payment:**

SEPCO Category-wise Amount Realized based on Billed Units			
Category of Consumers	**Amount of Billed Units Realized**		
	Unit	**2023-24**	%
Domestic	Million Rupees	**15766**	43.7%
Commercial	Million Rupees	**12438**	96.5%
Industrial	Million Rupees	**22168**	88.1%
Agricultural	Million Rupees	**2922**	63.3%
Bulk Supply	Million Rupees	**6144**	12.9%
Public Lighting	Million Rupees	**5860**	46.3%
Residential colonies	Million Rupees	**34**	100%
Others / General Supply	Million Rupees	**8178**	80.4%
Total	Million Rupees	**73510**	68.7%



2.4.3 Network Performance:

2.4.3.1 Power Outages:

Nature of Outage		FY- 2023-24	132 kV Feeder	66 kV Feeders	11 kV Feeders
1	Planned	No. of Tripping	**879**	**95**	**5135**
		Dur (min.)	**301179**	**34075**	**1351493**
2	Forced	No. of Tripping	**203**	**29**	**30648**
		Duration (min.)	**114276**	**4425**	**14816940**

2.4.4 Key Performance Indicators:

Following table highlights the results achieved by SEPCO in terms of steady improvements made as per NEPRA's Performance Standards for Distribution Companies, SEPCO Performance Indicators for last 3 years

S.No	Performance indicator	2020-21	2021-22	2022-23	2023-24
1	SAIFI (Nos.)-Tentative 2023-24)	455	411	118	81
2	SAIDI (Min) -Tentative 2023-24)	3890	3593	1468	1379
3	Fault Rate/Km (11 KV)	1.76	1.64	1.91	1.08
4	Fatal Accidents (Employee & Public)	26	19	17	5
5	T&D Losses (%)	35.3	35.7	34.5	34.74
6	Recovery (%)	64.5	63.8	68.19	67.1
7	Average Daily Load Management(MW)/Hrs.	261	294	273	351
8	Average Daily Load Management Hrs.	09:25	10:31	09:59	10:04
9	Time Frame for new connection (% Variation/Pending)	8.76	4.2	5.9	3.5

2.5 Transmission & Distribution Network Losses:

Transmission Network Line Losses (T&G)					
Period	Units (Millions)			% Losses	% Inc/Dec
	Units Received as Per CPPA	Units Received	Lost		
2023-24	4023.2	3938.7	84.53	2.10	+0.34%
2022-23	3867.6	3799.4	68.2	1.76	-0.05%
2021-22	4489	4402	87	1.93	+0.2%
2020-21	4291	4216	75	1.73	-0.05%

Over all SEPCO Losses (T&D)					
Period	Units (Millions)			% Losses	% Inc/Dec
	Received	Billed	Lost		
2023-24	4023.2	2625.6	1397.63	34.74	+0.4%
2022-23	3867.6	2538.1	1329.416	34.37	-1.37%
2021-22	4490	2890	1600	35.63	+0.3%
2020-21	4291	2776	1515	35.3	- 1.0%

2.6.0 Requested V/S Allowed and Recorded T&D losses

The details of requested & allowed T&D losses (%age) are as under; however Losses for the period 2025-26 to 2029-30 are determined in forth coming MYT, it is pertinent to mention that third part technical losses study will be performed during control period.

Description	FY 2020-21	FY 20 21-22	FY 2022-23	FY 2023-24	FY 2024-25
SEPCO requested (%)	**35.3**	**34.4**	**33.4**	**32.4**	**31.4**
NEPRA allowed (%)	**17.89**	**17.41**	**17.05**	**16.68**	**16.31**
Actual Losses (%)	**35.3**	**3.63**	**34.37**	**34.74**	**-**

2..6. Segregation of Technical and Administrative Losses:

The Transmission and Distribution network technical losses study was conducted in year 2012-13, by M/S PPI and reported 4.53 % losses in transmission network. Whereas, total 19.33% the said reports have already been submitted before NEPRA; the abstract of Technical losses study is given as under, however NEPRA allowed losses for the period 2021-25 are also mentioned, SEPCO planned to carryout fresh study of T&D Losses during Planned period..

S. #	Description	3rd Party % Assessed Technical losses	NEPRA Allowed				
			2020-21	2021-22	2022-23	2033-24	2024-25
1	**HT & Dist T/F**	11.463	11.46	11.18	11.02	10.85	10.68
2	**LT Network**	2.946	2.946	2.946	2.946	2.946	2.946
3	**Cables**	0.391	0.391	0.391	0.391	0.391	0.391
A	**Dist: network**	14.8	14.8	14.52	14.36	14.19	14.02
B	**T&T Losses**	4.53	1.69	1.59	1.49	1.39	1.29
C	**Law & Order**	0	1.4	1.3	1.2	1.1	1.0
Evaluated Technical T&D Losses		**19.33**	**17.89**	**17.41**	**17.05**	**16.68**	**16.31**

2.7 Existing Operation System of SEPCO

The existing operation of the Company comprises upon the following structure:

Formation	Circles	Divisions	Subdivisions
Operation	**05**	**16**	**63**
Construction	**01**	**4**	**11**
GSO	**01**	**4**	**14**
GSC	**01**	**2**	**04**
M&T	**01**	**3**	**0**
CIVIL	**-**	**1**	**4**
TOTAL	**09**	**30**	**96**

2.7.1 Project Design and Implementation System of SEPCO:

At present projects are being executed through the following financial arrangements:

- Own resources
- Consumer Deposits
- World bank (No funding)
- Federal PSDP (GoP)

However SEPCO is in negotiation for ADB funding.

2.8 Investment made in Last Five Years:

The detail of investment made in last five years along with source of funding

Description	2019-20	2020-21	2021-22	2022-23	2023-24	Total M.Rs
STG	1457	1437	1085	1448	1836	7263
DOP	45	327	445	111	226	1154
ELR	79	114	286	109	387	975
Others – Own Resources	0	0	33	35	66	134
Consumer Contribution	200	416	478	539	604	2237
Total Investment	1781	2294	2327	2242	3119	11763

2.8.1 Abstract of STG works done:

STG WORKS COMPLETED DURING YEAR 2019-20 TO 2023-24													
S #	Description	2019-20		2020-21		2021-22		2022-23		2023-24		Total	
		No.	M.Rs	No.	M.Rs	No.	M.Rs	No.	M.Rs)	No.	M.Rs	No.	M.Rs
1	New Grids	2	338	2	333	1	169	0	0	0	0	5	840
2	Conversion	0	0	0	0	1	133	0	0	1	201	2	334
3	Augmentation	2	146	8	561	5	200	0	0	0	0	15	907
4	Addition Of Power Transformers & 132kv Line Bays	11	165	4	176	0	0	6	115	1	37	22	493
5	New Transmission Lines (KM)	5	77	21	185	46	583	65	746	63	395	200	1987
	TOTAL		726		1256		1085		861		633		4561

2.8.2 11 KV & Below Works Abstract:

ABSTRACT OF COMPLETED WORKS (11 KV & Below)													
Sr. No.	Head	2019-20		2020-21		2021-22		2022-23		2023-24		Total Completed	
		No.	M.Rs	No.	M.Rs	No.	M.Rs	No.	M.Rs	No.	M.Rs	No.	M.Rs
01	HTP DOP	4	9	6	77	2	12	2	10	4	67	**18**	**175**
02	HTP ELR	6	62	8	70	2	23	4	28	4	85	**24**	**269**
03	LTP DOP	6	4	3	2	2	2	5	9	14	34	**30**	**51**
04	LTP ELR	17	10	11	7	16	12	18	19	16	18	**78**	**67**
05	M&R	300	174	216	136	68	43	91	121	99	173	**774**	**647**
TOTAL:-		**333**	**259**	**244**	**292**	**90**	**92**	**120**	**188**	**137**	**377**	**924**	**1,209**

2.9.1 Financial Performance of SEPCO:

The overall financial performance (Profit / Loss) of SEPCO is as under.

PROFIT AND LOSS ACCOUNT								(Rs. in Mln)
Description	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Revenue								
Electricity Turnover	78,148	100,240	130,254	136,087	146,077	157,467	169,523	184,901
Cost of Electricity	88,356	106,185	102,168	104,211	106,295	113,736	121,698	130,216
Gross Profit	(10,209)	(5,946)	28,087	31,876	39,781	43,731	47,825	54,684
Amortization of Deferred Credit	396	324	330	615	641	746	797	802
Net Profit	**(9,813)**	**(5,622)**	**28,417**	**32,491**	**40,422**	**44,477**	**48,622**	**55,486**
Operating Cost								
O&M Cost	12,302	17,587	19,752	22,407	26,151	29,758	34,125	39,246
Depreciation	1,864	1,704	1,705	1,790	1,933	2,030	2,193	2,368
Provision for doubtful debts	1,956	1,884	5,432	5,619	6,061	6,568	7,094	7,796
Total Expenses	**16,122**	**21,175**	**26,889**	**29,817**	**34,146**	**38,357**	**43,412**	**49,410**
Operating Profit	(25,935)	(26,796)	1,528	2,674	6,277	6,120	5,210	6,076
Other Income	1,991	1,952	1,884	2,570	2,698	2,833	2,975	2,975
EBIT	(23,944)	(24,844)	3,412	5,244	8,975	8,953	8,184	9,051
Financial Charges	15,564	1,640	1,640	1,580	2,402	2,500	2,255	2,355
EBT	(39,508)	(26,484)	1,772	3,664	6,573	6,453	5,929	6,696
Taxation	18	148	196	202	218	236	255	255
Profit/ (Loss) After Taxation	(39,526)	(26,336)	1,967	3,866	6,791	6,689	6,185	6,951

Despite sustained operational performance, the Equity of SEPCO has practically gone negative mainly due to inadequate tariffs and delayed implementation of adjustments thereof.

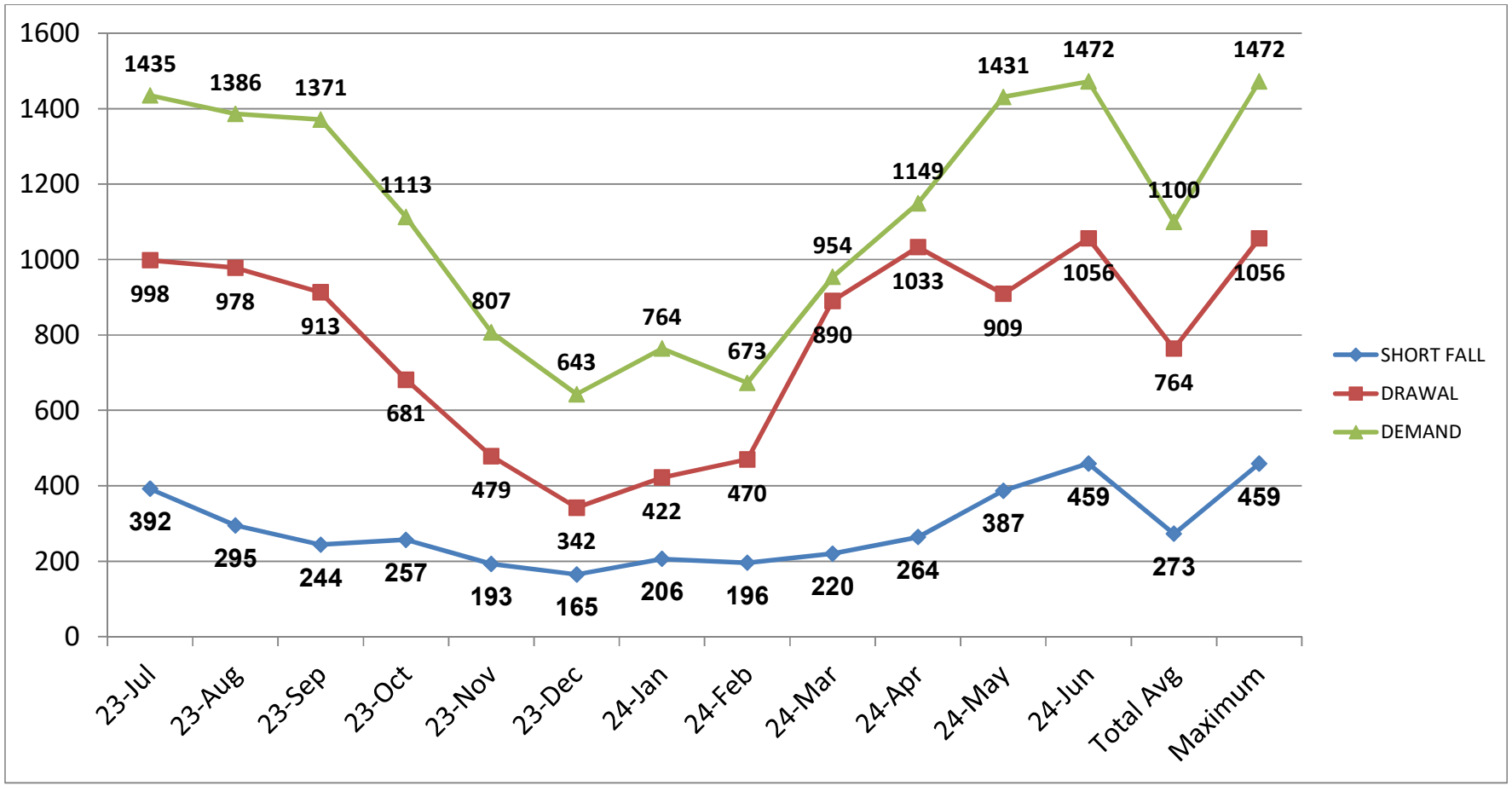
2.9.2 Ratio Analysis

Ratio Analysis	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
Gross Profit / (Loss) Ratio -%	-13.06%	-5.93%	21.56%	23.42%	27.23%	27.77%	28.21%	29.58%
Net Profit Ratio-%	-50.58%	-26.27%	1.51%	2.84%	4.65%	4.25%	3.65%	3.76%
Operating Expense Ratio-%	-8.21%	30.05%	10.96%	11.85%	14.32%	12.12%	12.80%	13.05%
Interest Coverage Ratio	-154%	-1515%	208%	332%	374%	358%	363%	384%

2.11 Power Demand & Supply:

During FY 2023-24 the maximum load of 1056 MW was recorded on 17.06.2024, @ 22:00 Hrs.

Month	SHORT FALL	DRAWAL	DEMAND
	Average	Max	Max
Jul-23	392	998	1435
Aug-23	295	978	1386
Sep-23	244	913	1371
Oct-23	257	681	1113
Nov-23	193	479	807
Dec-23	165	342	643
Jan-24	206	422	764
Feb-24	196	470	673
Mar-24	220	890	954
Apr-24	264	1033	1149
May-24	387	909	1431
Jun-24	459	1056	1472
Total Avg	273	764	1100
Maximum	459	1056	1472


1600
1400
1200
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1386
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1113
807
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1431
1472
1100
1472
998
978
913
681
479
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422
470
890
1033
909
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392
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23-Jul
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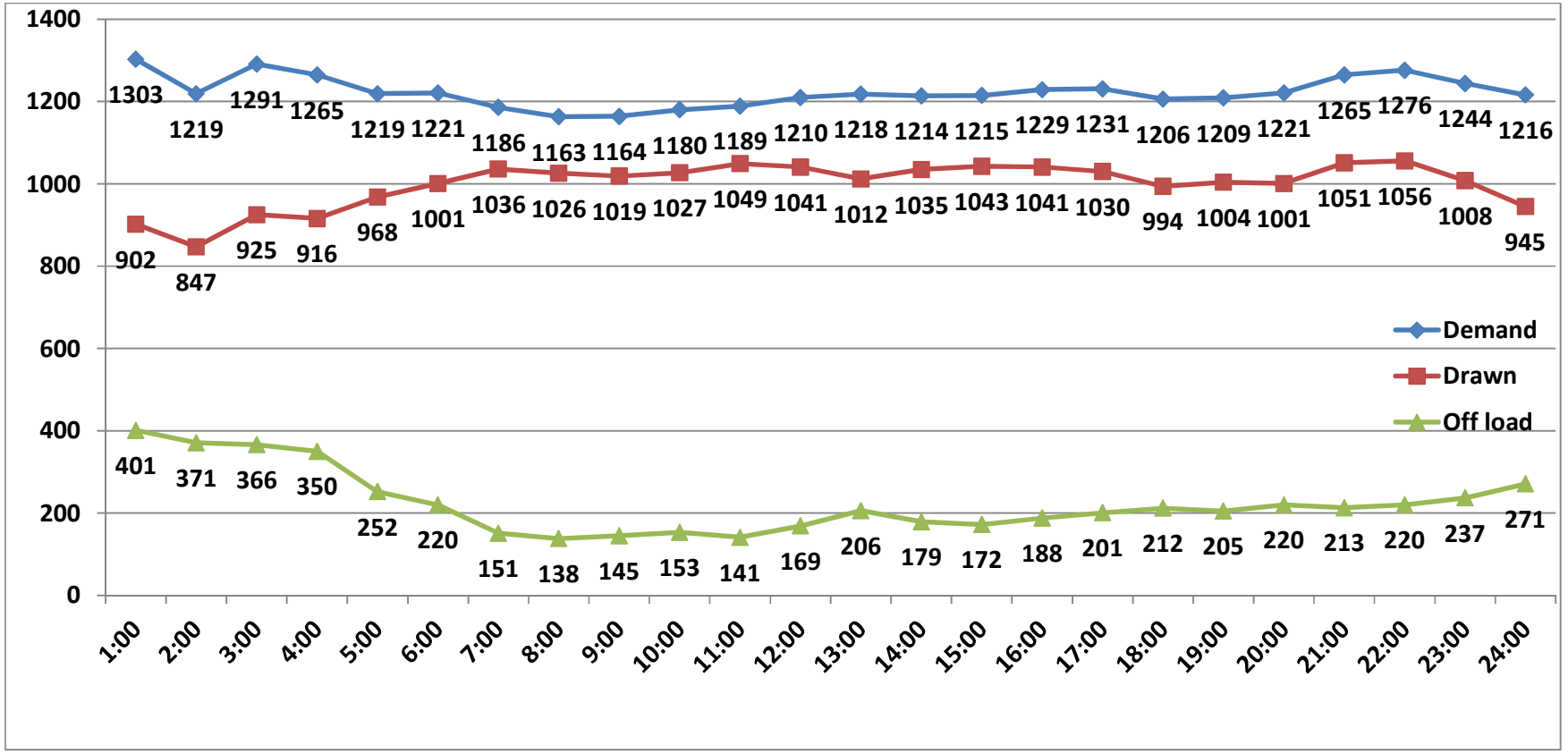
23-Sep
23-Oct
23-Nov
23-Dec
24-Jan
24-Feb
24-Mar
24-Apr
24-May
24-Jun
Total Avg
Maximum
SHORT FALL
DRAWAL
DEMAND

2.11.1 Hourly Power Demand & Supply:

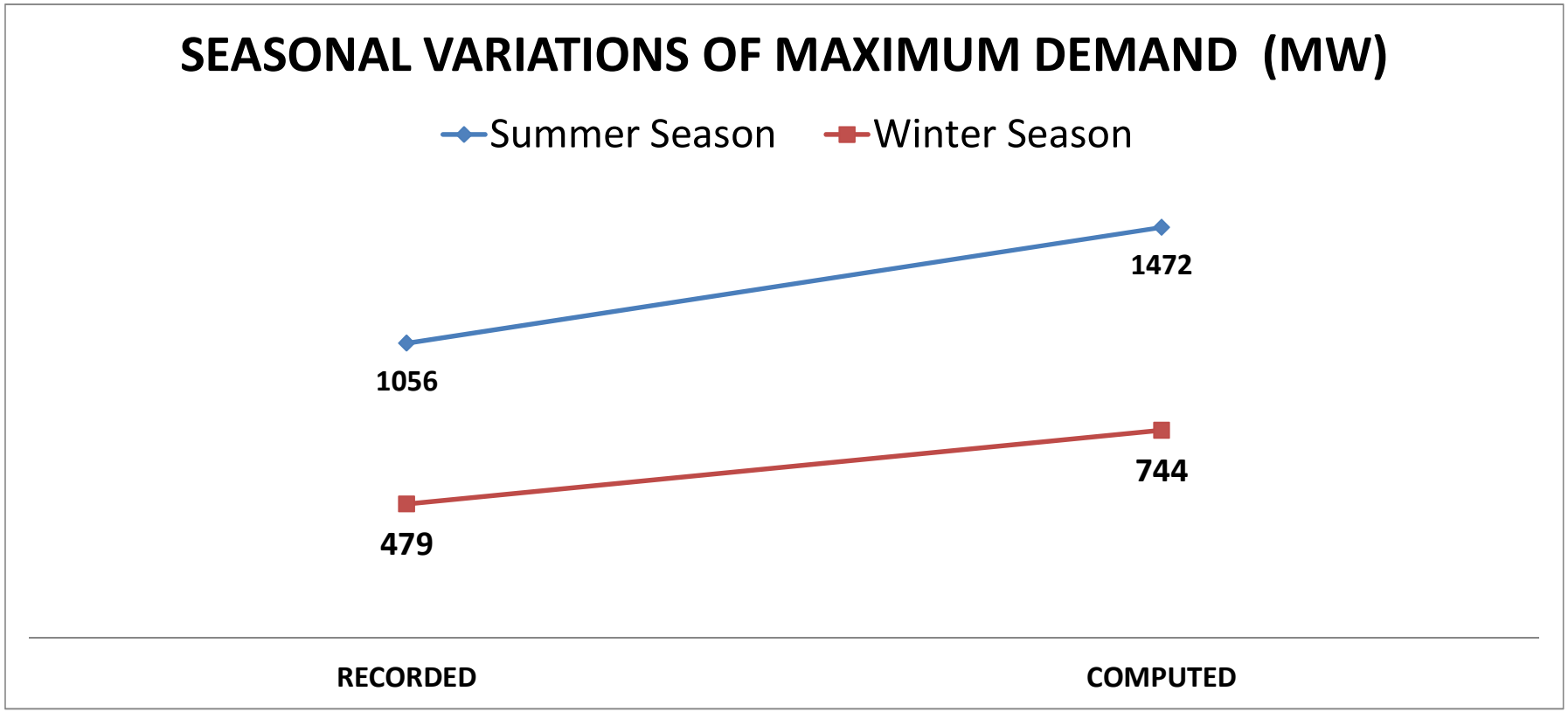
Daily Hourly load recorded on above date (17.06.2024) is as under,

Time	Demand	Drawn	Off load
1:00	1303	902	**401**
2:00	1219	847	**371**
3:00	1291	925	**366**
4:00	1265	916	**350**
5:00	1219	968	**252**
6:00	1221	1001	**220**
7:00	1186	1036	**151**
8:00	1163	1026	**138**
9:00	1164	1019	**145**
10:00	1180	1027	**153**
11:00	1189	1049	**141**
12:00	1210	1041	**169**
13:00	1218	1012	**206**
14:00	1214	1035	**179**
15:00	1215	1043	**172**
16:00	1229	1041	**188**
17:00	1231	1030	**201**
18:00	1206	994	**212**
19:00	1209	1004	**205**
20:00	1221	1001	**220**
21:00	1265	1051	**213**
22:00	1276	1056	**220**
23:00	1244	1008	**237**
24:00	1216	945	**271**

HOURLY DEMAND, DRAWAL, SHORT FALL (17.06.2024)



2.11.2 Seasonal Power Demand:



2.12 Network of SEPCO;

2.12.1 Secondary Transmission

Following is the current detail of Secondary Transmission Network of SEPCO:

- No. of Grid Stations = 68 Nos.
- 132 kV Grid Stations = 61 Nos.
- 66 kV Grid Stations = 07 Nos.
- No. of Power Transformers = 135 Nos.
- Installed Capacity = 3096 MVA
- Length of 132 kV Transmission Line = 2314 km
- Length of 66 kV Transmission Line = 687 km

2.12.2 11 KV & BELOW DISTRIBUTION NETWORK

Following is the detail of Distribution Network of SEPCO:

- No. of 11 kV Feeders = 589Nos.
- No. of Distribution Transformers = 40410 Nos.
- Total Installed Capacity of Dis; T/F = 2392 MVA
- Length of 11 kV (HT) Line = 25490 km
- Length of 0.415 kV (LT) Line = 13130 km
- HT/LT Ratio= 1.94

2.12.3 Feeding Sources of SEPCO:

The following are feeding sources, from where SEPCO is receiving the Electric Power:

Sr. No.	Name of Feeding Source
1.	500 KV Grid Station Dadu
2.	220 KV Grid Station Guddu
3.	220 KV Grid Station Lodra (New Shikarpur)
4.	220 KV Grid Station New Rohri
6.	132 KV Liberty Power House
7.	132 KV JDW Power House Ghotki
8.	M/S Al-Noor Sugar Mills (Pvt) Ltd. Shahpur Jahania, Moro
9.	M/S Shikarpur Power (Pvt) Ltd.
10.	M/S Dadu Energy (Pvt) Ltd.
11	Helios, HNDS and Meridian Energy Solar Plants at NARA

2.12.4 **Status of network performance**:

Power Transformers NOS. and Capacity								
As on 30th June	NoS.				Capacity (MVA)			
	132 kV	66 kV	33 kV	Total	132 kV	66 kV	33 kV	Total
2023	113	21	-	134	2859.1	223.4	-	3083
2024	114	21	-	135	2872.1	223.4	-	3096

Power Transformers NOS. and Overloading								
As on 30th June	No. of Power Transformers				No. of Over-Loaded			
	132 kV	66 kV	33 kV	Total	132 kV	66 kV	33 kV	Total
2023	113	21	-	134	18	6	-	24
2024	114	21	-	135	34	4	-	38

11 kv Feeders and Overloading					
As on 30th June	Circles	Divisions	Sub-Divisions	Loading Position (Nos.)	
				91-100%	Above 100%
2023	9	30	94	19	34
2024	9	30	96	38	45

Distribution Transformers and overloading					
As on 30th June	Total No. of Distribution Transformers	Total Capacity of (MVA)	Loading Position (Nos.)		
			80-90%	91-100%	Above 100%
2023	40169	2333	4089	1743	805
2024	40410	2392	1697	1320	530

Distribution Lines (km) in DISCO's Area						
	132 kV	66 kV	33 kV	11 kV	Total HT	Total LT (0.4 kV)
As on 30-06-2023						
Overhead Lines	2283.7	687.33	0	24912	27883.03	13354
As on 30-06-2024						
Overhead Lines	2343.7	687.33	0	25490	28521.03	13310

2.15 Financial Management:

Finance is a strategic function that ensures efficient financial management and control in order to mitigate the business risk and maximize value for the Customer, shareholders and the Company. The department's goals, which are aligned with the Company's strategy, broadly cover the following areas:

- Deliver the finance and commercial strategy
- Be guardians of enterprise value creation
- Balance risk and opportunity
- Demonstrate stewardship of spend by lowering absolute costs

Management regularly conducts reviews to ensure that all financial decisions align with the overall business strategy and goals. Key management decisions are presented to the Board for their approval to ensure transparency in governance.

In addition, compliance with applicable laws and regulations is ensured. SEPCO has a fully resourced finance and procurement functions, bifurcated in different sub departments which collectively ensure smooth running of Finance and Procurement functions.

❖ **Budgeting Process**

S No.	Process
1	This process covers the activities regarding preparation and allocation of Operating and Maintenance Budget
2	Budget Performa for the preparation of Estimated Budget is forwarded by the Budget Section of Finance Directorate to the D&D Offices
3	Estimated Budget is prepared by all the D&D Offices and submitted to the Budget Section for consolidation and scrutiny.
4	The Estimated Consolidated Budget is reviewed by the FD, CEO and the Finance Committee and recommended to the BOD for approval
5	After Approval from BOD, Operating and Maintenance Budget is allocated and a Letter for Distribution of Allocated Budget is issued to all the D&D Offices.
6	The approved budget is forwarded to NEPRA and any changes suggested by NEPRA are incorporated in the Revised Budget which is approved by the BOD.
7	After approval of the Revised Budget, a Letter for Distribution of Revised Budget is issued to all D&D Offices by CP & C Section of Finance Directorate
8	Variance Analysis Report is prepared on monthly basis which is reviewed by FD and presented to the BOD.
9	The Budget Section maintains and updates a D&D Office wise Budget Record

2.15.1 ERP Implementation;

For the effective financial management SEPCO has started its core functioning through ERP project with estimated cost of Rs. 480.0 Millions which includes 04 Modules.

- **Financial Management Improvement.**
  ERP in financial management improvement manage financial data, processes and reporting, SEPCO started work to improve the internal audit function and audit and accounting manuals. Under this plan SEPCO envisages to conduct specialized studies like Assets tagging and valuation,

- **Human Resource Improvement.**
  This plan covers the HR improvement activities, promotions, retirement and revamping / addition of training facilities, training of employees through external facilities, conducting some studies, improving the working environment etc.

- **Inventory Management.**
  This plan covers the Inventory improvement activities, it will provide real time visibility into inventory, which can help to optimize stock level and help to point out needs for new procurement in time.

- **Project Management.**
  This plan covers the Project activities, it will provide real time visibility into Project Management for Development works, which can help to optimize stock level and help to point out needs for new procurement in time.

2.15.2 Revamping of Internal Audit:

Internal Audit:
Internal Audit is functioning as a part of internal control in SEPCO for efficient and effective utilization of funds. In addition to above revamping of internal audit is proposed in financial management improvement plan, Revamping an internal audit function involves reassessing and improving its effectiveness, efficiency, and alignment with organizational objectives. Implementation of functions as per Audit manual

Reasons for Revamping Internal Audit:

1. Changing business landscape
2. New regulatory requirements
3. Increased risk exposure
4. Inadequate audit coverage
5. Insufficient resources
6. Lack of independence
7. Ineffective audit processes

Benefits of Revamping Internal Audit:

1. Improved assurance on internal controls
2. Enhanced risk management
3. Increased efficiency and effectiveness
4. Better decision-making
5. Strengthened governance
6. Reduced risk exposure
7. Improved stakeholder confidence

Internal Audit is functioning as a part of internal control in SEPCO for efficient and effective utilization of funds. The scope of internal audit is to;

- Review major decisions for economy, efficiency and effectiveness.
- Review the measures employed to safeguard assets and conduct physical verification of such assets and to review actual v/s budgeted income / expenses and assess reasons for major variances.
- Review the suitability of the accounting policies employed and to review the accounting and internal control systems including design of the system and monitoring their operations.
- Presentation and Analysis of the main issues being faced by the Company.

2.16.1 IT/MIS

An independent IT directorate is operational at SEPCO to look after the complete Management Information System (MIS) related to Company's operation, The Basic functions of Computer Centers are to manage complete billing process, providing up-dated defaulter list, management of SEPCO web site, updating of SEPCO MIS operations including losses and recovery, employees pay rolls management, computer network management at Company level, Hardware, Software development, maintenance and services etc.

2.17 HR Management:

2.17.1 Human Resources:

SEPCO HR department overlooks all the HR matters of the company including hiring of new workforce against vacant positions. At present SEPCO is facing acute shortage of staff which poses a challenge in reliable and efficient operation of the company.
Existing position of Workforce in SEPCO is as under;

Description	Officers		Officials		Grand Total
	Technical	Non-Technical	Technical	Non-Technical	
Sanctioned	**249**	**118**	**5178**	**4028**	**9573**
Working	**173**	**29**	**3711**	**2244**	**6157**
Vacant	**76**	**89**	**1467**	**1784**	**3416**
% Vacant	**31%**	**75%**	**28%**	**44%**	**36%**

2.17.3 Capacity Building:

- Officers Trained:

During the FY: 2023-24, 21 officers (BPS-17 to 19) completed training courses from the WAPDA Staff College Islamabad & WAPDA Engineering Academy Faisalabad, as per detail given below:

Sr. No.	Name of Course / Training	No. of Officers
1	Junior Management Course at WAPDA Staff College (JMC)	02
2	Management Orientation Course (MOC)	01
3	Refresher course for XEN to SE (T-800)	07
4	Middle Management Course Islamabad (MMC)	04
5	Sector Specific Course Pre-Promotion for Junior Engineer (SSC)	02
6	Senior Management Course (SMC)	**03**
7	Refresher Course (SE to C.E)	**02**

❖ Officials Trained:

- At Regional Training Centre & Circle Training Centers SEPCO conduct 59 courses / trainings were scheduled in which 605 No. employees were trained during FY-2021-22.

- At Regional Training Centre & Circle Training Centers SEPCO conducted 10 courses / training were scheduled in which 121 No. employees were trained during the year 2022-23.

- At Regional Training Centre & Circle Training Centers SEPCO conducted 02 courses / training were scheduled in which 22 No. employees were trained during the year 2023-24.

- During last Three years SEPCO has conducted & managed 71 training / courses and trained 758 employees of the Company.

2.18 Commercial Management:

2.18.1 Statistical & Financial information:

Purchase and sale of electricity, network energy losses in respect of SEPCO for the last five years are as under:

Period	Units (Millions)			Losses	Million Rupees		
	Units Received as Per CPPA with SPP	Units Billed	Lost	%	Billed	Recovered	Receivables
2023-24	4023.2	2625.6	1397.6	34.74	110417	73510	235266
2022-23	3867.6	2538.1	1329.4	34.4	81232	54022	198344
2021-22	4489.8	2890.2	1599.6	35.6	63210	40315	172236
2020-21	4291.0	2776.0	1515.0	35.3	50267	32235	145058
2019-20	4253.0	2710.0	1542.0	36.3	47837	27050	130133

2.18.2 Financial Saving due to reduction in losses:

The financial loss/saving achieved through sustained reduction/increase in line losses are:

Sr. No.	Description	Unit	2019-20	2020-21	2021-22	2022-23	2023-24
1	Units Received	M.Kwh	4253	4291	4489.7	3867.6	4023.2
2	Units Billed	M.Kwh	2710	2776	2890.2	2538.1	2625.6
3	Units Lost	M.Kwh	1542	1515	1599.6	1329.4	1397.6
3	Line Losses	%	36.3	35.3	35.6	34.37	34.7
4	Units to be Lost at previous losses	M.Kwh	1573.6	1557.6	1584.9	1378.02	1382.8
5	Units Saved Impact	M.Kwh	31.6	42.6	(-14.73)	48.60	(-14.85)
6	Average Billed Rate	Rs. /kWh	20.64	20.64	25.50	31.44	38.17
Total Savings Yearly		**Rs. Million**	**652.2**	879.3	(375.6)	1528	(567)

2.18.3 Replacement of Defective meters

SEPCO replaced 6397 Nos. defective 1-Phase and 3-Phase energy meters, for accuracy of meter readings. The detail is given as under;

Period	Total defective meters	1-Phase & 3-Phase	
		Installed	Pending
2022-23	6426	3884	2542
2023-24	2542	2513	29

2.18.4 Pending New Connections:

SEPCO has 337 nos. applications pending at the end of 2022-23, new applications received during 2023-24 6958 -nos. out of which 7253 nos. ripe connections installed and remaining are pending due to un-ripe and other issues.

Period	Connections pending at the end of 2022-23	New applications received	Connections installed	Pending due to various reasons
2023-24	337	6958	7253	42

2.18.5 Pending Dues (Receivables):

Abstract of SEPCO receivables against energy dues towards government, Federal, provincial, private running, disconnected and defaulter consumers for the period ending June 2023 and up to June 2024 is mentioned as under:

Description	2020-21	2021-22	2022-23	2023-24
Govt:				
Federal	1534	2787	4655	9134
Provincial	13609	15992	21660	33520
Total Govt Receivables	15142	18779	26315	42654
Private:				
Running Defaulters	114405	133265	150528	171981
Disconnected Defaulters	14377	14345	13639	13695
Others(Deferred, installments, un identified)	(396)	(434)	(1165)	(1281)
Total Pvt Receivables	128385	147176	163002	184395
Total Receivables (GOV+PVT)	143528	165955	189317	227049
Spill Over	2408	2877	2964	3429
Total	145936	168832	192281	230478
Subsidies	2122	3404	6063	4788
Total Receivables all	**145058**	**172236**	**198344**	**235266**

2.19 Internal Control

Investment Approval:
Investment approval is requested each year in different heads including STG, ELR, DOP and other system development programs.

2.20 Legal and Regulatory Framework of Power Sector

SEPCO in its licence status as an electric power distribution company and Electric Power Supplier is obligated for full compliance to the regulatory framework. The fundamental law governing both businesses of SEPCO is the NEPRA Act 1997. Under the governing law the regulatory framework includes regulations specified by NEPRA, rules prescribed by the federal government, various (Grid, Distribution and Market Commercial) codes, guidelines, licence and directives, collectively applicable documents. SEPCO being the licence for the service territory pledges itself to be 100% compliant with all the applicable documents at all times and cost.

National Electricity Policy and National Electricity Plan

The National Electricity Policy 2021 and National Electricity Plan 2023-27 are fundamental policy documents issued under Section 14A of the NEPRA Act. Besides being supported by the NEPRA Act, the Policy has the concurrence of Council of Common Interests (CCI) and the Plan is issued with the approval of federal cabinet, accordingly, the said policy and plan have legal binding status for the regulated as well as the Regulator. These documents provide guidance to the power sector entities, including SEPCO, and the Regulator on adherence towards the policy objectives of the sovereign through detailed actions and processes to be put in place. While the policy provides overarching principles; the plan provides details of actions and processes.

As a government-owned electricity distribution company, SEPCO is committed to aligning its operations with the National Electricity Policy and take all applicable actions prescribed in the Plan and contribute towards the development of a robust and sustainable electricity sector. Various actions and sub-plans and timelines thereto included in this business plan are in pursuance of the said Policy and the Plan.

Performance Agreement between PMO & MoE (PD)

The business plan in hand is manifestation of commitment in achieving the targets outlined in the performance agreement contract and contributing to the overall development of and improvement in the energy sector. Monthly and quarterly reports for progress achieved during the period are reported.

2.21 Code of Corporate Governance for Public Sector:

A high priority is placed on corporate governance practices to ensure transparency, accountability, and efficiency in our operations.

Compliance with the Code of Corporate Governance:

Adoption of Best Practices: Code of Corporate Governance for Public Sector Organizations have been fully adopted and implemented by SEPCO as per the principles and best practices across organization.

Board Oversight: Board of Directors provides effective oversight of operations, ensuring that management follows ethical practices and complies with relevant laws and regulations.

Transparency and Accountability: SEPCO maintains transparency in financial reporting and operations. Effective mechanism has been put in place to ensure accountability at all levels of the organization.

2.22 Financial Issues:

The Company has the following financial issues:

- Tax Issues with FBR
- Subsidies.
- Recoveries.

Investment Needs:

- STG head
- ELR head
- DOP head
- Other system development program

Other Issues:
SEPCO is facing shortage of 189-Nos. officers out of which 103-Nos are technical whereas 86-Nos out of 110 Nos are non-technical officers. Furthermore, 1558-Nos posts of Technical officials are also vacant due to which it is very problematic to manage the operational & maintenance work of the company. Overall, SEPCO is facing shortage of 3603-Nos of employees, working strength is 5951 out of 9554 However, the recruitment process initiated under the directions of the BOD this year is expected to reasonably improve the situation and alleviate the shortage.

SEPCO as a government-owned electricity distribution company is operating within the framework established by the relevant laws, regulations, and policies governing the power sector.

Section –III: Forecasts for Next Five Years

3. Introduction:

Demand Forecast based on Power Market Survey and is prepared by SEPCO MIRAD team with assistance of NTDC. The report consists of year wise detailed forecast of SEPCO energy sale and power demand for the whole company and each sub-station within the company's distribution network. In addition to this, forecast for Civil Administrative areas such as Divisions and Districts served by the company's distribution network.

Load forecasting is an important element of the power planning process involving prediction of energy and demand in the future. The forecast serves as the basis for demand and supply side planning. Load forecasts are typically prepared by utilities for different time frames and the level of details required depends upon different planning applications and operations for which the forecast will be used.

3.1 Actual & estimated number of Consumers

Year	Domestic	Commercial	Small Industry	Medium & Large Industry	Agri	Bulk	Public Lights	Total
2016-17	593378	117824	9696	2910	12145	503	412	736868
2017-18	603070	119384	9657	3048	9221	507	421	745308
2018-19	617185	151776	9788	3161	9270	527	425	762132
2019-20	641556	123808	9896	3237	9346	531	442	788816
2020-21	656597	125388	10017	3366	9370	534	445	805717
2021-22	664061	126816	10074	3459	9377	542	449	814778

Year	Dom	Comm	Ind	Agri	Public Lights	Bulk	Gen	Others	Total
2022-23	652594	126948	13585	9260	470	539	13410	20	816826
2023-24	658826	127788	13726	10106	486	542	12585	20	82479

Anticipated nos. of New Consumers:

Description	Domestic	Commercial	Industrial	Agricultural	Other	TOTAL
2023-24	658826	127788	13726	10106	13633	824079
2024-25	663205	128658	13818	10198	13638	829519
2025-26	667584	129528	13910	10290	13643	834959
2026-27	673423	130688	14033	10413	13650	842212
2027-28	680721	132139	14187	10567	13659	851278
2028-29	688019	133590	14341	10721	13668	860344
2029-30	692398	134460	14433	10813	13673	865784

3.1.1 Energy and Demand Forecasts (Recorded)

Demand Forecast for the period 2023-2032, as already submitted with honorable Authority, has been developed under two (2) scenarios, viz:

- Low Forecast (Recorded);
- Base Forecast (Computed)

Where the Base Forecast represents, the total expected sale, had the load shedding is not implemented, i.e., the computed loads; whereas the Low Forecast represents only loads served, i.e., the recorded loads. Accordingly, the position for the plan horizon 2023-32, under both the above- mentioned scenarios, each provided separately, has emerged as under:

Demand Forecast - Base Case Forecast:

As per Demand Forecast (PMS) already submitted with NEPRA, following is the expected demand (GWh and MW) under base case (Computed) scenario over the plan horizon 2022-23 to 2031-32.

3.1.2 Energy and Demand Forecasts (Recorded)

Year	Energy Sale		Distribution Losses		Energy Received at 11 kV	Peak Demand at 11 kV	Transmission Losses		Energy Sent out at 132 kV	Load Factor	Peak Demand at 132 kV
	(GWh)	G.R	(GWh)	(%)	GWh	MW	(GWh)	(%)	(GWh)	(%)	(MW)
2022-23	2524		1219	32.6	3743	973	126	3.26	3869	43.9	1006
2023-24	2613	3.5	1237	32.1	3850	996	103	2.61	3953	44.1	1022
2024-25	2703	3.4	1253	31.7	3956	1018	102	2.51	4058	44.4	1044
2025-26	2794	3.4	1268	31.2	4061	1040	101	2.42	4162	44.6	1066
2026-27	2885	3.3	1281	30.7	4166	1063	99	2.32	4265	44.8	1088
2027-28	2977	3.2	1292	30.3	4270	1084	97	2.23	4367	44.9	1109
2028-29	3070	3.1	1302	29.8	4373	1106	95	2.13	4468	45.1	1130
2029-30	3164	3.0	1311	29.3	4475	1128	93	2.04	4568	45.3	1151
2030-31	3258	3.0	1318	28.8	4576	1149	91	1.94	4667	45.5	1171
2031-32	3353	2.9	1323	28.3	4677	1170	88	1.84	4765	45.6	1192
2032-33	3449	2.9	1327	27.8	4776	1190	85	1.75	4861	45.8	1212
Ave. Growth (2023-33)	**3.17%**				**2.47%**	**2.04%**			**2.31%**		**1.88%**

3.1.3 Category wise Energy and Demand Forecast (Recorded)

Year	Domestic		Commercial		Public Light		Small Industries		M&L Industries		Tube Well		Bulk		Total	
	GWh	GR %	GWh	GR %	GWh	GR %	GWh	GR %	GWh	GR %	GWh	GR %	GWh	GR %	(GWh)	G.R (%)
2022-23	1547		214		139		82		291		175		77		2524	
2023-24	1597	3.2	221	3.4	144	3.1	84	2.8	305	4.8	183	4.6	81	4.8	2613	3.5
2024-25	1647	3.1	228	3.3	148	3	86	2.7	319	4.7	191	4.4	85	4.6	2703	3.4
2025-26	1697	3.1	235	3.2	152	2.9	88	2.7	334	4.6	199	4.2	88	4.4	2794	3.4
2026-27	1748	3	243	3.1	157	2.9	91	2.6	349	4.5	207	4	92	4.2	2885	3.3
2027-28	1799	2.9	250	3	161	2.8	93	2.5	364	4.4	215	3.9	96	4	2977	3.2
2028-29	1850	2.9	257	3	165	2.7	95	2.5	379	4.3	223	3.7	100	3.9	3070	3.1
2029-30	1902	2.8	265	2.9	170	2.6	98	2.4	395	4.2	231	3.6	103	3.7	3164	3
2030-31	1954	2.7	272	2.8	174	2.6	100	2.4	411	4.1	239	3.5	107	3.6	3258	3
2031-32	2007	2.7	280	2.8	178	2.5	102	2.4	428	4	247	3.3	111	3.5	3353	2.9
2032-33	2060	2.6	287	2.7	183	2.5	105	2.3	445	3.9	255	3.2	114	3.4	3449	2.9
Ave. Growth	2.9%		3%		2.8%		2.5%		4.3%		3.8%		4%		3.2%	

3.1.4 Energy and Demand Forecasts (Computed)

Year	Computed Sale		Distribution Losses		Energy Received at 11 kV	Peak Demand at 11 kV	Transmission Losses		Energy Sent out at 132 kV	Load Factor	Computed Peak Demand at 132 kV	
	(GWh)	G.R %	(GWh)	(%)	GWh	MW	(GWh)	(%)	(GWh)	(%)	(MW)	G.R (%)
2022-23	2670		1290	32.6	3959	1029	133.3	3.26	4093	43.9	1064	
2023-24	2759	3.3	1306	32.1	4065	1051	108.9	2.61	4174	44.1	1080	1.5
2024-25	2849	3.3	1321	31.7	4169	1073	107.5	2.51	4277	44.3	1101	2.0
2025-26	3013	5.8	1367	31.2	4381	1122	108.6	2.42	4489	44.5	1150	4.5
2026-27	3179	5.5	1411	30.7	4589	1171	109.2	2.32	4699	44.7	1199	4.2
2027-28	3418	7.5	1484	30.3	4902	1245	111.7	2.23	5014	44.9	1274	6.3
2028-29	3658	7.0	1552	29.8	5210	1318	113.5	2.13	5324	45.1	1347	5.8
2029-30	3973	8.6	1646	29.3	5620	1416	116.8	2.04	5736	45.3	1446	7.3
2030-31	4289	7.9	1735	28.8	6024	1512	119.2	1.94	6143	45.5	1542	6.7
2031-32	4679	9.1	1847	28.3	6525	1632	122.6	1.84	6648	45.6	1663	7.8
2032-33	5070	8.4	1951	27.8	7020	1750	124.9	1.75	7145	45.8	1781	7.1
Ave. Growth	**6.62%**				**5.89%**	**5.45%**			**5.73%**		**5.29%**	

3.1.5 Category Wise Energy and Demand Forecasts (Computed)

Year	Domestic		Commercial		Public Light		Small Industries		M&L Industries		Tube Well		Bulk		Total	
	G.Wh	G.R	G.Wh	G.R	G.Wh	G.R	G.Wh	G.R	G.Wh	G.R	G.Wh	G.R	G.Wh	G.R	G.Wh	G.R
2022-23	1636		226		147		86		307		185		82		2670	
2023-24	1686	3.0	233	3.2	152	2.9	89	2.6	322	4.6	193	4.3	86	4.6	2759	3.3
2024-25	1735	3.0	240	3.1	156	2.8	91	2.5	336	4.5	201	4.1	89	4.4	2849	3.3
2025-26	1830	5.5	254	5.6	164	5.3	95	5.1	360	7.0	214	6.5	95	6.8	3013	5.8
2026-27	1925	5.2	267	5.3	172	5.1	100	4.8	384	6.7	228	6.5	101	6.4	3179	5.5
2027-28	2065	7.3	287	7.4	185	7.1	107	6.9	418	8.8	247	8.3	110	8.4	3418	7.5
2028-29	2205	6.8	307	6.9	197	6.6	114	6.4	452	8.2	266	7.7	119	7.8	3658	7.0
2029-30	2389	8.3	333	8.4	213	8.2	123	8.0	496	9.8	290	9.0	130	9.3	3973	8.6
2030-31	2573	7.7	358	7.8	229	7.5	132	7.3	542	9.1	315	8.6	141	8.6	4289	7.9
2031-32	2800	8.9	390	8.9	249	8.7	143	8.5	597	10.	345	9.5	155	9.7	4679	9.1
2032-33	3028	8.1	422	8.2	268	7.9	154	7.8	654	9.5	375	8.7	168	8.9	5070	8.4
Ave. Growth	6.3%		6.5%		6.2%		6.0%		7.8%		7.3%		7.5%		6.6%	

As per Demand Forecast (PMS) already submitted with NEPRA, following is the expected demand (GWh and MW) under base case (Computed) scenario over the plan horizon 2024-25 to 2029-30.

3.2 Demand Forecast 2025 – 2030

The Energy & Demand Forecast based on PMS, Carried out on the basis of base load 2022-23, is as under, however now demands have been reduced, the next forecast on the basis of the period ending June 2024 is scheduled this month.

SEPCO PMS Forecast (Base Forecast)							
Year	Computed Sale	Distribution Losses	Energy Received at 11 kV	Peak Demand at 11 kV	Transmission Losses	Energy Sent out at 132 kV	Computed Peak Demand at 132 kV
		(GWh)	GWh	MW	(GWh)	(GWh)	(MW)
2025-26	3013	1367	4381	1122	108.6	4489	1150
2026-27	3179	1411	4589	1171	109.2	4699	1199
2027-28	3418	1484	4902	1245	111.7	5014	1274
2028-29	3658	1552	5210	1318	113.5	5324	1347
2029-30	3973	1646	5620	1416	116.8	5736	1446

3.3 Category Wise Sale- GWh & MW (Base Forecast) 2025 – 2030

SEPCO Category Wise Sale- GWh (Base Forecast)								
Year	Domestic	Commercial	Public Light	Small Industries	M&L Industries	Tube Well	Bulk	Total
	(GWh)	(GWh)	(GWh)	(GWh)	(GWh)	(GWh)	(GWh)	(GWh)
2024-25	1735	240	156	91	336	201	89	2849
2025-26	1830	254	164	95	360	214	95	3013
2026-27	1925	267	172	100	384	228	101	3179
2027-28	2065	287	185	107	418	247	110	3418
2028-29	2205	307	197	114	452	266	119	3658
2029-30	2389	333	213	123	496	290	130	3973

SEPCO Category Wise Sale- MW (Base Forecast)								
Year	Domestic	Commercial	Public Light	Small Industries	M&L Industries	Tube Well	Bulk	Total
	MW	MW	MW	MW	MW	MW	MW	MW
2022-23	616	98	35	21	22	7	18	696
2023-24	633	101	36	22	22	7	19	715
2024-25	651	104	37	22	22	7	20	735
2025-26	686	110	39	23	23	7	21	774
2026-27	720	115	40	24	24	7	22	812
2027-28	772	123	43	26	25	7	24	870
2028-29	823	131	46	28	27	7	26	927
2029-30	891	142	50	30	29	8	28	1003

DIIP-01 Consumer Growth by Category:

DIIP 1 – Consumer Growth by Category							
							(Nos)
Description	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**
Domestic	**658826**	**663205**	**667584**	**673423**	**680721**	**688019**	**692398**
Commercial	**127788**	**128658**	**129528**	**130688**	**132139**	**133590**	**134460**
Industrial	**13726**	**13818**	**13910**	**14033**	**14187**	**14341**	**14433**
Agricultural	**10106**	**10198**	**10290**	**10413**	**10567**	**10721**	**10813**
Other	**13633**	**13638**	**13643**	**13650**	**13659**	**13668**	**13673**
TOTAL	**824079**	**829519**	**834959**	**842212**	**851278**	**860344**	**865784**
Growth %	**Base year**	**0.7%**	**0.7%**	**0.9%**	**1.1%**	**1.1%**	**0.6%**

DIIP-02 Energy and Demand Forecasts:

					M.Kwh
Description	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**
Domestic	**1555**	**1822**	**1949**	**2077**	**2213**
Commercial	**244**	**286**	**306**	**325**	**347**
Industrial	**424**	**496**	**531**	**566**	**603**
Agricultural	**88**	**104**	**111**	**118**	**126**
Other	**566**	**663**	**710**	**773**	**841**
TOTAL	**2876.674**	**3370.38**	**3606.30**	**3858.7**	**4128.86**
Growth %	**11%**	**15%**	**6.5%**	**6.5%**	**6.5%**
					(MW)
Description	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**
Total Demand	1066	1088	1109	1130	1151

3.4 Generation Forecast and Power Acquisition Program:

To meet future load demands a combined Acquisition Program (PAP) has been prepared in coordination with NTDC and all DISCOs.

As per Regulation 4 of the said Regulations, an Electric Power Supplier shall be responsible for;

- For ensuring security of supply for its consumers by planning power procurement in adequate quantity.
- Procures adequate electric power to meet its capacity obligations with prudent spatial load forecasts while using the best available information, to avoid under or over contracting.
- Adopts efficient and effective power procurement strategy and risk mitigation mechanisms keeping in view the approved IGCEP, TSEP, Network Expansion Plan(s) and Power Acquisition Programme.
- Maintains creditworthiness, financial health, and sufficient payment capacity, and complies with its electric power procurement and use of system charges payment obligations.

The Regulation 6 of the said Regulations requires the supply of last resort shall prepare a rolling five-year **Power Acquisition Programme (PAP)** on an annual basis which shall include:

- Its requirements in terms of energy and peak demands.
- Existing contracted energy and capacity.
- Its capacity obligations as determined by the market operator in accordance with the Market Commercial Code.
- Proposed new and firm power procurement during the next three years and indicative procurement for the subsequent two years.

Generation Fuel	Power Generation Projects IGCEP Total (Installed)					
	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
	MEGA WATS					
Imported Coal	4,620	4,620	4,620	4,620	4,620	4,620
Local Coal	3,300	3,300	3,600	3,600	3,600	3,600
RLNG	6,957	6,957	6,957	6,957	6,957	6,957
Gas	2,767	2,767	2,767	2,542	2,542	2,767
Nuclear	3,620	3,620	3,620	3,620	3,620	3,620
Bagasse	244	276	276	276	276	276
Solar	962	962	962	962	962	962
Hydro	11,360	13,715	14,355	16,913	17,458	17,983
Cross Border	-	1,000	1,000	1,000	1,000	1,000
SPP	117	84	65	65	65	65
Wind	1,945	1,945	1,945	1,945	1,945	1,945
RFO	3,505	3,505	3,505	2,083	2,083	1,356
TOTAL	**39,396**	**42,750**	**43,671**	**44,582**	**45,127**	**45,150**
Total Firm Capacities (Less K.E. Share)	**30,632**	**33,616**	**34,313**	**35,011**	**35,474**	**35,314**

Generation Fuel	Tentative SEPCO Share in IGCEP Capacities (Existing) @ 3.73%					
	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
	MEGA WATS					
Imported Coal	148	148	148	148	148	148
Local Coal	49	49	49	49	49	49
RLNG	212	212	212	212	212	212
Gas	103	103	103	95	95	103
Nuclear	135	135	135	135	135	135
Bagasse	9	9	9	9	9	9
Solar	20	20	20	20	20	20
Hydro	402	402	402	402	402	402
Cross Border	-	-	-	-	-	-
SPP	4	3	2	2	2	2
Wind	69	69	69	69	69	69
RFO	131	131	131	78	78	51
TOTAL	**1,282**	**1,281**	**1,280**	**1,219**	**1,219**	**1,200**
Total Firm Capacity	**986**	**984**	**980**	**925**	**925**	**902**

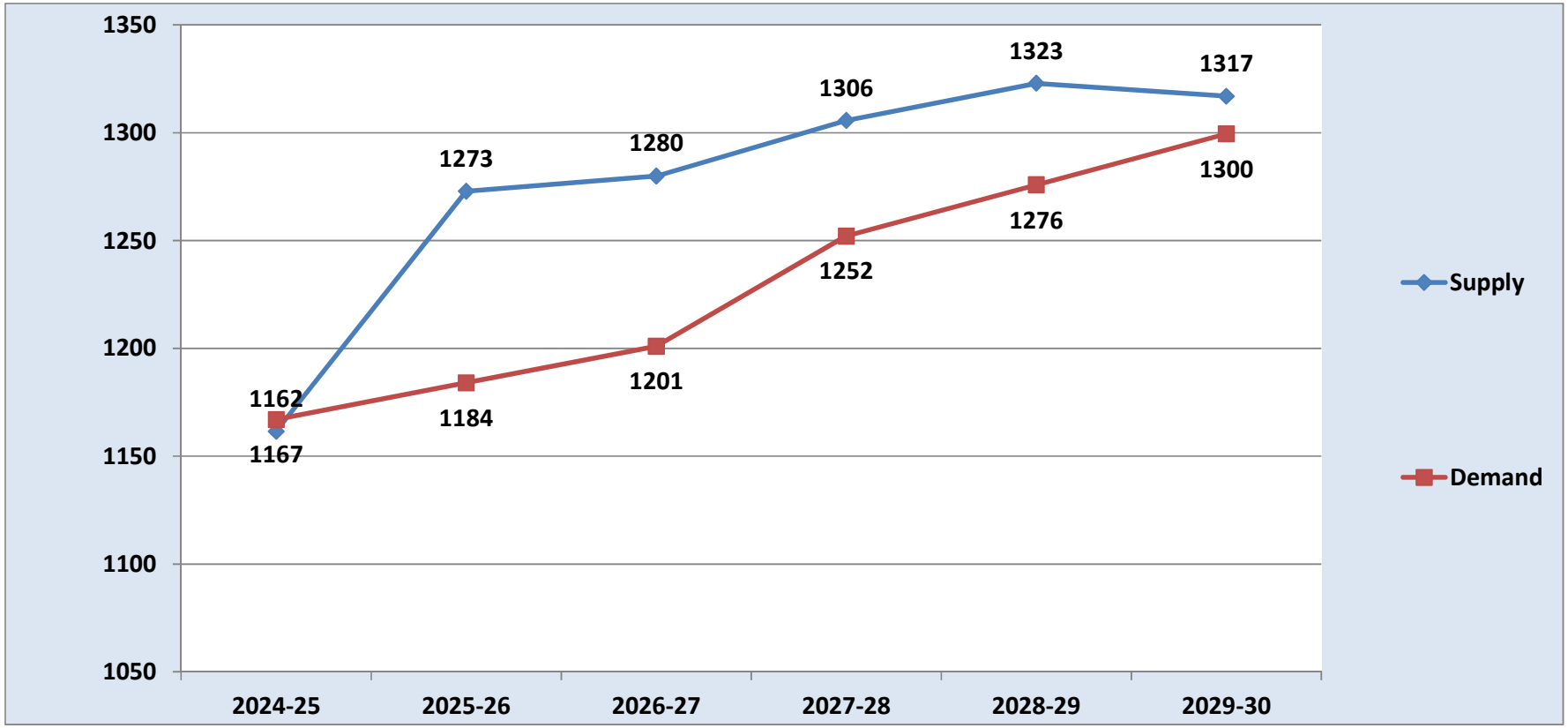
Generation Fuel	Tentative SEPCO Share in IGCEP Capacities (Committed) @ 3.73%					
	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
	MEGA WATS					
Imported Coal	25	-	-	-	-	-
Local Coal	74	-	11	-	-	-
RLNG	47	-	-	-	-	-
Gas	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-
Bagasse	-	1	-	-	-	-
Solar	7	-	-	-	-	-
Hydro	17	85	23	95	20	20
Cross Border	-	37	-	-	-	-
SPP	-	-	-	-	-	-
Wind	2	-	-	-	-	-
RFO	-	-	-	-	-	-
TOTAL	**172**	**123**	**35**	**95**	**20**	**20**
Firm Capacity	**151**	**110**	**30**	**81**	**17**	**17**

Generation Fuel	Tentative SEPCO Share in IGCEP Capacities (Committed/ Un-Contracted) @3.73%					
	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
	MEGA WATS					
Imported Coal	-	-	-	-	-	-
Local Coal	-	-	-	-	-	-
RLNG	-	-	-	-	-	-
Gas	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-
Bagasse	-	-	-	-	-	-
Solar	9	-	-	-	-	-
Hydro	4	3	0	-	-	-
Cross Border	-	-	-	-	-	-
SPP	-	-	-	-	-	-
Wind	2	-	-	-	-	-
RFO	-	-	-	-	-	-
TOTAL	16	3	0	-	-	-
Total Firm Capacity	6	3	0	-	-	-

Generation Fuel	Tentative SEPCO Share in IGCEP Capacities (Installed/ Firm)					
	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
	MEGA WATS					
Imported Coal	172	172	172	172	172	172
Local Coal	123	123	134	134	134	134
RLNG	259	259	259	259	259	259
Gas	103	103	103	95	95	103
Nuclear	135	135	135	135	135	135
Bagasse	9	10	10	10	10	10
Solar	36	36	36	36	36	36
Hydro	424	512	535	631	651	671
Cross Border	-	37	37	37	37	37
SPP	4	3	2	2	2	2
Wind	73	73	73	73	73	73
RFO	131	131	131	78	78	51
System Constraint	19	19	-	-	-	-
TOTAL	**1,488**	**1,613**	**1,629**	**1,663**	**1,683**	**1,684**
Total Firm Capacity	**1,162**	**1,273**	**1,280**	**1,306**	**1,323**	**1,317**

COMPLIANCE OF CAPACITY OBLIGATION						
Case Description	Assessment of Security of Supply					
	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30
	MEGA WATTS (Firm Capacity)					
Tentative SEPCO Share in Generation: (3.73%)						
Existing Installed	986	984	980	925	925	902
Committed/ Contracted Projects	151	261	291	372	389	406
Committed/ Un-Contracted Projects	6	9	9	9	9	9
System Constraint	19	19	-	-	-	-
Total Firm Capacity	1,162	1,273	1,280	1,306	1,323	1,317
Capacity Obligation	1167	1184	1201	1252	1276	1300
Firm Capacity as %age of Capacity Obligation	100%	108%	107%	104%	104%	101%
Compliance Status	Compliant	Compliant	Compliant	Compliant	Compliant	Compliant

3.5 Security of Supply:



3.6 Demand / Supply:

DEMAND / SUPPLY							
Sr. No.	**Description**	**FY**	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**
1	Estimated Peak Demand	MW	**1066**	**1088**	**1109**	**1130**	**1151**
2	Transmission Losses	%age	**2.639**	**2.639**	**2.639**	**2.639**	**2.639**
3	Adjusted Peak Demand	MW	**1076**	**1092**	**1138**	**1160**	**1181**
4	Reserve Margin	%age	**10**	**10**	**10**	**10**	**10**
5	Capacity Obligation	MW	**1184**	**1201**	**1252**	**1276**	**1300**

DIIP-3 Anticipated Load Shedding:

Description	2025-26	2026-27	2027-28	2028-29	2029-30
Total Demand (MW)	**1184**	**1201**	**1252**	**1276**	**1300**
Generation Available (MW)	**1,273**	**1,280**	**1,306**	**1,323**	**1,317**
Shortfall (MW)	**-89**	**-79**	**-54**	**-47**	**-17**

As per table SEPCO Generation share @ (3.73%) is higher than capacity obligation as per Market commercial code, however anticipated load shedding depends on the gap between demand and real time supply and , depends on AT&C based.

3.7 Other Changes Including Technological Advances:

PESTLE analysis is a strategic framework used to analyze and monitor the external macro-environmental factors that can impact an organization, business, or project. The energy sector in Pakistan is a critical component of the nation's infrastructure, pivotal for economic growth and social development.

By using PESTLE analysis, organizations can better understand the external factors that may opportunities or threats and make informed decisions to mitigate risks and capitalize on opportunities, following are the factors affecting performance of DISCOs.

❖ Political Factors:

Political factors play a significant role in determining the factors that can impact SEPCO in long term profitability. SEPCO is operating in 10 Districts of province Sindh and expose itself to different types of political environment and political system risks.

- Political instability and the rapid evolution of political dynamics can create a volatile operating environment, affecting strategic decision-making and operational stability.
- Government policies, particularly those related to energy, taxation, and trade, can significantly influence SEPCO's financial performance.

❖ Economic Factors:

SEPCO can use country's economic factor such as growth rate, inflation, interest rate, foreign exchange rate & industry's economic indicators such as Electric Utilities industry growth rate, consumer spending etc. to forecast the growth trajectory, determine the aggregate demand and aggregate investment.

- Exchange rate volatility can affect the cost of imported equipment and the value of foreign investments.
- Economic growth rates are crucial as they correlate with energy demand; slower growth may lead to reduced electricity consumption and increased cost.
- Inflation rates directly impact operational costs and, consequently, the pricing of electricity for consumers.
- High transmission and distribution losses
- Low investment in the power sector
- Circular debt in the power sector
- Demand trend has been decreased day by day due to solarization followed increased tariff and load shedding which caused decreased load factor of SEPCO and other DISCOs resulting in capacity cost payment which is actual component behind increased power prices.

- **Lack of investment**: The uncertainty and risks in the power sector discourage investment in new generation and infrastructure.
- Lastly, the interest rates affect SEPCO's ability to finance new projects or refinance existing debts, with higher rates increasing the cost of borrowing.

Understanding and managing these economic factors are vital for SEPCO's strategic planning and long-term sustainability.

❖ Social Factors:

Society's culture and way of doing things impact the culture of an organization in an environment.
The demographics and skill level of the population can influence demand for electric utilities and shape service delivery strategies.

❖ Technology Factors:

The electric utilities industry is fast moving toward automation, driven by technological advancements that are reshaping the landscape of power distribution.
Operational control and assets Management are crucial for optimizing assets utilizing and life cycle, ensuring that operational costs are reduced with increased production / benefits, technologies available and planned are mentioned here.

- Real-time load is monitored through Load Data improvement Project (LDI) at Power Distribution Center (PDC) through AMR meters in coordination with Power Information Technology (PITC).
- Outdated communication methods can slow down operations, but real-time data monitoring and efficient data management can streamline processes and enhance decision-making, for that AMI (Automated Metering Infrastructure) project for Automated Meter Reading is in process for real-time and accurate meter readings.
- APMS (Assets Performance Monitoring System) has been planned on recording the data of energy received and sold by each Distribution transformer, connection / disconnection for proper vigilance to curb theft and load shedding remotely,
- Mushroom growth of Solarization may affect demand forecasts, and reduction in load factor of company.

❖ **Legal Factors:**

The legal landscape for DISCO's like SEPCO is multifaceted, encompassing following areas

- Laws governing the power sector, including the Regulation of Generation, Transmission and Distribution of Electric Power Act of 1997, the NEPRA Act.
- The legal framework for electricity regulation in Pakistan
- Licenses issued by the National Electric Power Regulatory Authority (NEPRA) for Generation, Transmission, and Distribution, Supplier of Power (SOLR)
- Filing of Tariff Petitions as per energy purchased, sold, losses and revenue requirements
- Consumer End Tariff approval by NEPRA.
- Dispute resolution, through NEPRA, Wafaqi Muhatisib, Electrical Inspector.
- Lodging of FIR's against users of electricity by unfair means by direct hooking.

❖ **Environmental Factors:**

Environmental factors indeed play a crucial role in shaping the operations and profitability of utility companies like SEPCO.

- Climate change: Rising temperatures and changing precipitation patterns affect power demand and supply.
- Natural disasters: Floods, earthquakes, and heat waves impact power infrastructure and supply, collapse of transmission network, submerging of costly power transformers, besides disturbance in power supply to consumers.

VI Analysis:

As analysis of above factors, carried out, to mitigate the risks, a preventive comprehensive plan has been included in this investment plan, however force mejure and technology advancement in generating cheap energy by consumers can cause DISCOs business, for which proper load forecast required, however all contracts may be converted to take and pay rather take or pay basis, this is the survival of power sector.

Section –IV Next Five Years Goals and Objectives:

The main goals and objectives are as under:

4.1 Improvement in Operational Efficiency:

4.1.1 Reduction in losses:

Progressive reduction in losses comprehensive plan has been prepared aimed at reducing distribution and transmission losses. The loss reduction plan focuses on the following key areas (details provided in later parts of this business plan):

Infrastructure Upgrades: A comprehensive plan for upgrading of infrastructure, including (STG, ELR, DOP) New grids, conversion, addition, Augmentation, ELR Works to replace transformers, conductors, and other distribution equipment has been developed to reduce technical losses, Installation of ABC on bared LT has been proposed to eliminate administrative losses.

Metering and Billing Improvements: Metering and billing processes are being improved to ensure accurate measurement of electricity consumption and reduce losses due to billing errors.

AMI: The advanced metering infrastructure (AMI) technology is being used to improve the efficiency of the distribution system and reduce technical losses, eliminate meter reading disputes.

- **Implementation of APMS and Scanning meters:**

- Asset Performance Management System is designed to monitor the performance of each distribution transformers, report their current load status, and signify instances of overloading and subsequent tripping, monitoring energy inflows and out flows to control theft.

- Deployment of Mukhtiarkar for recovery purpose can boost recovery , and other vigilance /Chokidara and day night monitoring measures also reduce theft, ultimately reduction in losses and improvement in recovery.

These measures, combined with commitment to continuous improvement, will enable to achieve the targets for the reduction in distribution losses, improve recovery, decrease AT&C based load shedding.

4.1.2 Progressive improvement in recoveries:

A comprehensive plan aimed at improving recoveries has been developed and implemented focuses on the following key areas:

Billing Accuracy: Accuracy of billing processes is the key to reduce disputes in the billing and improve recoveries.

Timely Billing: It is being ensured that bills are issued to consumers in a timely manner to avoid delays in payment and improve cash flow.

Door to door recovery campaign:- Recovery campaigns plays pivotal role in enhancement of recoveries upto target and 100%.

4.1.3 Improving Reliability (SAIDI, SAIFI, and Fault Rate):

Reliability improvement plan focuses on the following key areas:

Infrastructure Upgrades: The infrastructure upgrade includes sufficient investment in secondary transmission and grids, distribution network (DOP, ELR), GIS Mapping, APMS, Hazard Removal and earthing of structures etc. Further upgrade of aging infrastructure, such as transformers, cables, and other equipment, is prioritized to improve the reliability and performance of our distribution system. All said initiatives, besides increase in customer base, shall enable network/ system to effectively respond to the quality of service aligned with customer demand.

4.1.4 Development & Strengthening of Safety Management System

SEPCO is committed for continuously improving Safety Management System to ensure the safety of employees, customers, and the general public, following steps taken / planned to improve safety.

❖ Removal of Safety Hazards:

A comprehensive safety inspection program has been implemented aimed at identifying and addressing safety hazards within the distribution and transmission network. This program includes regular inspections of infrastructure, such as poles, transformers, and Conductor/cables, to identify any potential hazards that could pose a risk to safety.

Furthermore, training sessions and Public awareness campaigns have been conducted for employees and general public to raise awareness about safety hazards.

SEPCO is committed to continuously improving our safety practices and procedures to ensure the safety of our operations.

Identification and removal of safety hazards (Public and line staff) is a regular. During the year 2024-25 it is envisaged that 1061 number public safety and line staff hazards, being already identified, and removed.

❖ **Earthing/ Grounding of Distribution Transformers, HT/LT structures and poles**

As per directions of NEPRA, SEPCO has already started earthing/ grounding of all distribution transformers, HT/LT structures and poles where earthing is already not present or damaged. This project is a major step towards a target of zero fatal/ non-fatal accidents of employees as well as public. During the Investment plan period 2025-26 to 2029-30, total 5000 Nos. (Tentative) Structures/ poles/ Transformers will be set right with earthing/ grounding.

❖ **Provision of Personal Protective Equipment and proper T&P to all employees**

Understanding the importance of ensuring the safety and well-being of workforce, SEPCO is committed to providing the necessary equipment and resources to support their safety, while believing on “proper tool for proper job”.

Provided PPE and T&P to all employees in accordance with the relevant safety regulations and standards has been ensured. This includes items such as helmets, gloves, safety glasses, and insulated tools, among others. We conduct regular training sessions to ensure that employees are aware of the importance of using PPE and T&P correctly and have the necessary skills to do so.

❖ **Arc proof uniforms /dresses for GSO Staff:**

In addition to above PPE, Special Arc Proof Dresses have been proposed for safety of GSO staff.

❖ **Bucket Mounted truck :**

In addition to above PPE, Special **Bucket Mounted trucks have** been proposed for safety of staff and reduction in fault clearance time.

❖ **Safety Walks, seminars, public awareness:**

As part of the commitment to ensure the safety of employees, consumers, and the general public, a series of initiatives aimed at promoting a culture of safety by safety walks, seminars and public awareness campaigns have been started.

4.2 Improvement Customer care and Services:

Following improvements will be made in Customer care and Services:

❖ **New customer care centers:**

New 19 nos. customer centers have been proposed for better customer care and services.

❖ **Model Sub Divisions:**

Initially 03 nos. sub divisions have been provisionally selected as model sub division as pilot project after successful operations range will be extended.

❖ **Special Desk For Industrial Customers:**

Special / dedicated desk has been proposed at regional level to listen and resolve complaints of industrial consumers round the clock, to facilitate industrialist.

❖ **Conversion of Industrial dominated feeders to dedicated industrial feeders**:

As per vision and mission of Chairman BOD to facilitate industrial consumers of Industrial dominated general supply feeders , separate feeders have been proposed on zero load shedding to enhance company revenue and attract new consumers also this will enhance socioeconomic condition of the area, create jobs and reduction in poverty and crimes.

❖ **Reduction in billing complaints:**

Installation of AMR, Mobile Meter Reading Accuracy, timely and correct billing efforts will reduce billing complaints at remarkable level. The anticipated billing complaints will reduce, from 20000+ to Zero

❖ **Functional Improvement Plan (Transport Plan):**

In addition to above for operational activities of company field vehicles have been proposed, for better functional improvement crane mounted trucks has been proposed for better site accessibility, easier transportation of material, loading and unloading of material, this will save time and provide safety to workers.

4.3 Integrated Commercial Improvement Plan:

4.3.2 AMI / AMR Meters:

Installation of AMR meters on industrial, commercial, domestic, agricultural connections has been proposed in addition to already installed AMR on Government of Sind connection; also MCO of defective AMR meters has been planned.

4.3.4 Installation of SCADA on 132 KV and 11 KV Feeders:

SCADA has been proposed on 75 grids including future grids and 650 nos. 11 kv feeder for real time monitoring and control to save time of restoration and increase reliability. In first phase feasibility study will be carried out.

4.4 Comply with Applicable Laws and Regulations:

SEPCO Distribution and Supply Business is governed by Acts, Regulations, codes, rules and Laws made by Government or various Government entities and NEPRA as Regulator, compliance of all Regulations, Rules, Codes, Laws, Acts and Policies, received from time to time is being made Sincere and timely .

(DIIP-4) SEPCO'S STRATEGIC GOALS & OBJECTIVES

Strategic Goals	Strategic Objectives	Leading Directorate	Coordinating Directorates	Target Measurement	Measurement as of FY-2025	Five Years Objectives				
						2025-26	2026-27	2027-28	2028-29	2029-30
1. Improvement in Operational Efficiency	Losses	CE/OD	All SE's	%	33.74%	27.1	16.3	16.3	16.3	16.3
	Collection	CE/CCO	Comm;	%	75.0	85.0	100.0	100.0	100.0	100.0
	SAIFI	CE/CTO	CM&O	nos.	77	73	69	66	63	59
	SAIDI	CE/CTO	CM&O	Minutes	1310	1244	1182	1123	1067	1013
	Safety	CE/OD	CM&O	zero	Nos.	Zero	Zero	Zero	Zero	Zero
	Earthing	CE/OD	CM&	nos.	22620	1000	1000	1000	1000	5000
	Arc Proof Dress	CE/CTO	SE GSO	nos.	0	136	0	0	0	
	Bucket Mounted Trucks	CE/OD	CM&O	nos.	3	0	5	8	7	0
	Installation of Electronic / Static meters	CE/CCO	Manager Comm:	nos.	0	10000	10000	10000	10000	10000
	T&P & PPE	CE/OD	CM&O	nos.	-	32550	33675	34780	35855	36900
	Operational Vehicles	CTO	Admn/ DM Transport	nos.	0	14	12	10	8	6

2. Improvement Customer care and Services	Reducing Billing Complaints	CE/CCO	Comm;	nos.	**20000**	**10000**	**5000**	**2500**	**0**	**37500**
	New customer centers	CE/CCO	Comm;	nos.	19	19 Customer Centers will provide services to customers				
	Special Desk for Industrial consumers	CE/CCO	Comm;	no	Established and providing service to Industrial consumers					
	Model Sub Divisions	CE/CCO	CE/CCO	no	0	0	3	0	0	0
3.0 Improvement in Discos Infrastructure (Humanware)	Management Training	DG HR	HR	nos.	12	12	12	12	12	12
	Technical Trainings	DG HR	HR	nos.	9	12	12	12	12	12
	Trainings of officials	DG HR	HR	nos.	250	350	440	450	450	450
	Outsource Trainings	DG HR	HR	nos.	-	5	5	5	5	5
	Cranes-05 Tons	CE/DEV	PD GSC	nos.	0	0	0	1	0	0
	Cranes-08 Tons	CE/DEV	PD GSC	nos.	0	0	2	0	0	0
3.1 Improvement in Discos infrastructure development Commercial & Financial Improvement (Infoware)	IBS / Cyber Security/AMI	CE / CCO	IT / MIS	M.Rs	0	30	30	30	30	30
	Software Licenses, System Study	CE / CTO	IT / MIS	M.Rs	0	30	30	30	30	30
	PC, Laptops, Printers,, Mobile phones for MMR	CE / CCO	IT / MIS	M.Rs	0	25	25	25	25	25
	GIS Enterprise Solution	CE/CTO	P&D	M.Rs	0	250	150	0	0	0
3.2 Improvement in Discos (Technoware)	ERP O&M	DG HR	HR	M.Rs	0	40	30	30	30	30
	AMR /AMI	CE / CCO	RM M&T	nos.	6133	40623	28617	20000	20000	21659
	APMS	CE/ /TO	All SE's	nos.	963	1926	1926	0	0	0
4.0 Comply with Applicable Laws and Regulations	NEPRA Act, NEPRA'S Regulations, Rules,	MIRAD	(CM&RA)	SEPCO Distribution and Supply Business is governed by Acts, Regulations, codes, rules and Laws made by Government or various Government entities and NEPRA as Regulator, compliance of all						

	Codes CSM, NEPRA'S PSDR, Market Commercial Codes, Distribution Code, National Electricity Policy & Plan			Regulations, Rules, Codes, Laws, Acts and Policies, received from time to time is being made Sincere and timely		
	E&D Rules & Others	DG HR	Legal			
5.0 Make DISCO Social Responsible entity	To create Policy, Vision & Mission for Corporate Social Responsibility and Selection of Areas for CSR	DG HR	All SE's	Active	No progress	The said Policy establishes a governance structure for implementation of SEPCO's CSR Vision and Mission, outlining the roles of the CSR Committee and its reporting mechanisms to the Board of Directors, while emphasizing compliance with regulatory standards and periodic review to ensure alignment with evolving societal needs and organizational priorities.

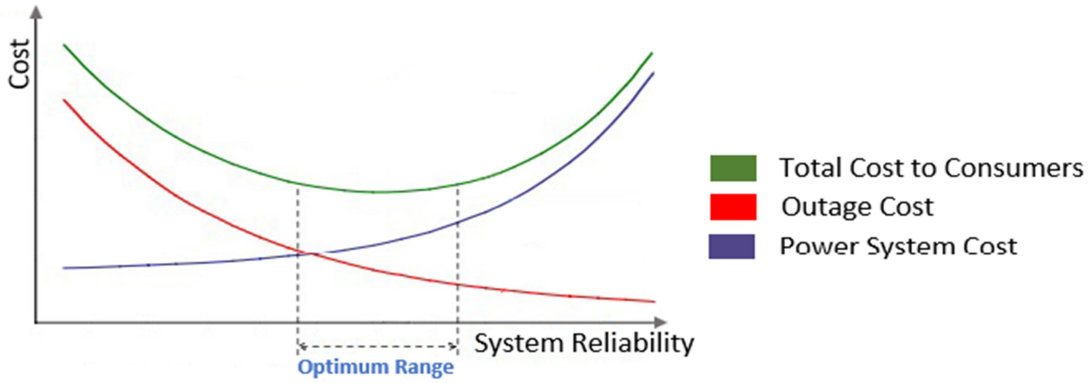
Section –V Projects and Programs:

Objective of planning for STG and Distribution system:

Availability: Supply resources must be easily accessible, abundant, and based on appropriate technologies.

Reliability: Optimal and timely constructed network infrastructure to ensure resource adequacy and secure system operations.

As shown below in figure, a highly reliable power system would entail large investments in the power system and therefore, increase costs. On the other hand, lower investments in the power system's capacity would reduce costs but expose the system to outages. Therefore, an optimal system planning entails a power system that balances costs with reliability. Thus, SEPCO has intent to plan all activities / works / projects accordingly.



5.1 Secondary Transmission System

This section covers scope for the expansion and rehabilitation of secondary transmission network (132 kV) of SEPCO.
SEPCO has prepared one case (Optimally achievable), but implementation of best case would have completely revamped the transmission network and enabled the SEPCO to achieve the NEPRA's specified Performance Standards. The Multi Year Tariff (MYT) is based on the Optimally Achievable Case scope and costs.

5.2 Scope: Optimal Achievable Case:

DIIP-10 Grid Stations (Optimal Achievable)

DIIP10 - Grid Stations (Optimally Achievable Case)								
Sr.No	Description	Total No.	Total Capacity	2025-26	2026-27	2027-28	2028-29	2029-30
			(MVA)	(No)	(No)	(No)	(No)	(No)
1	**New**							
a	132 KV	**2**	**66**	1	1	0	0	0
2	**Conversion**							
a	66 to 132 KV	7	94	2	2	2	1	0
3	**Augmentation**							
a	132 KV	4	67	2	0	1	0	1
4	**Extension (Transformer)**							
a	132 KV	5	158	4	1	0	0	0
5	**Extension (Line Bay)**							
a	132 KV	12	0	12	0	0	0	0

DIIP-11 New Transmission Lines (Optimal Achievable)

Sr .No.	Description	Total Length	2025-26	2026-27	2027-28	2028-29	2029-30
		(km)	(Km)	(Km)	(Km)	(Km)	(Km)
1	132 KV D/C	35	20	15	0	0	0
2	132 KV SDT	456	25	67	98	255	11
	Total	35	20	15	0	0	0

DIIP-12 Rehabilitation of T/L (Optimal Achievable)

Sr.No.	Description	Total Length	2025-26	2026-27	2027-28	2028-29	2029-30
		(km)	(Km)	(Km)	(Km)	(Km)	(Km)
1	132 KV D/C	0	0	0	0	0	0
2	132 KV SDT	0	0	0	0	0	0

DIIP-13 Rehabilitation of T/L (Optimal Achievable)

Sr.No.	Description	Total	2025-26	2026-27	2027-28	2028-29	2029-30
		(km)	(Km)	(Km)	(Km)	(Km)	(Km)
1	132 KV D/C	0	0	0	0	0	0
2	132 KV SDT	0	0	0	0	0	0

DIIP-14 Capacitors 132 & 11 KV (Optimal Achievable)

Sr.No.	Description	Total MVAR	2025-26	2026-27	2027-28	2028-29	2029-30
			(MVAR)	(MVAR)	(MVAR)	(MVAR)	(MVAR)
1	11kV Fixed Capacitors	0	0	0	0	0	0
2	11kV Switched Capacitors	43.2	14.4	14.4	9.6	4.8	0
3	132kV Fixed Capacitors	0	0	0	0	0	0
4	132kV Switched Capacitors	108	72	36	0	0	0

5.3 Load Flow Study of Optimal Achievable Case

Load flow studies have been carried out for the peak load conditions of SEPCO by SEPCO MIRAD team. As per study results, low voltage observed on 11/66 Kv Buses Also overloading on Power T/Fs at 66 Kv G/S has been observed.

5.3.1 Anticipated Results of Load Flow Studies

Load flow studies have been carried out with already planned/on-going projects; and with & without proposed sub projects in 5-year plan to study their impact on the system, anticipated benefits are as under.

Year	Description	Power Loss(MW)	Reduction in Losses (Yearly) MW	Reduction in Losses (Cumulative) MW	Saving M.Kwh	Comm; Saving M.Kwh
2025-26	Without Scope	42.1	11.7	11.7	27.9	27.9
	With Scope	30.4				
2026-27	Without Scope	31.9	0.7	12.4	1.7	29.6
	With Scope	31.2				
2027-28	Without Scope	32.0	1.5	13.9	3.6	33.2
	With Scope	30.5				
2028-29	Without Scope	32.1	1.6	15.5	3.8	37.0
	With Scope	30.5				
2029-30	Without Scope	30.7	0.2	16.0	0.5	37.5
	With Scope	30.5				

5.4 Short Circuit Studies

The maximum short circuit levels have been computed with the following assumptions under IEC 909 standard by setting:

- Transformers tap ratio to unity
- Line charging to zero
- Shunt elements to zero under in positive sequence
- Voltage at 1.1 p.u

As per above short circuit study results, following rating of switchgear is recommended while keeping margin for future network expansion:

- 40 kA for 132 kV
- 40 kA for 11 kV, especially for power transformers.

It has been found that the short circuit levels, as a result of the induction of the proposed subprojects, will not increase at the existing substations in their vicinity.

5.5 11 KV & Below Distribution Expansion & Rehabilitation

SEPCO has prepared the Expansion and Rehabilitation plan for Distribution network to improve the reliability and sustainability, the implementation of plan would completely revamp the distribution network and enabled the SEPCO to achieve the NEPRA's specified Performance Standards Distribution and provision of the Distribution / Grid Code, especially the Distribution Planning Code issued by NEPRA.

This section covers the expansion and rehabilitation of distribution network (11kV and below) of the distribution company.

5.5.1 DOP (Distribution Expansion Plan)

5.5.2 Project Description:

This project envisages expansion of Distribution network during the years 2025-2026 to 2029-2030 which consists of the following works:

a) Providing 36265 new electricity connections to the prospective customers.
b) Addition of 544 km 11 KV line.
c) Addition of 2121 km LT line.
d) Installation of 1609 Nos. Distribution Transformers of different capacities.

5.5.3 Customer Forecasting:

The category-wise yearly installation of connections by SEPCO during (2025-26 to 2029-30).will be as under.

The category-wise ratio of customers installed has been calculated as under:

Domestic	Commercial	Industrial	Agricultural	Others	Total
79.94	**15.5**	**1.66**	**1.22**	**1.65**	**100 %**

On the basis of percentage share of existing connections, with average growth rate of 0.7 %, the total number of customers to be added has been calculated as under:

Domestic	Commercial	Industrial	Agricultural	Others	Total
29193	5802	617	617	36	36265

As such, total number of 36265 consumers which will come up during the period 2025-26 - 2029-30 both in Urban and Rural areas.

5.5.4 Basic Data and Assumptions:

A) New 11 KV (H.T) Lines:

Keeping in view the existing SEPCO network, the average H.T line per consumer is found as 15.4 meter as such, Lump sum 15 meters per consumer HT Line for additional 36265 consumers **544 KM** new H.T line will be required.

Circle	H.T Line per Customer (in Meter)	No. of Customers To Be Added	Total Length Of Line Required (in Km)
Sukkur	15.0	8922	134
Larkana	15.0	6963	105
Dadu	15.0	9790	147
Ghotki	15.0	5947	89
Shikarpur	15.0	4643	70
TOTAL	15.0	36265	522
		Say	**522 Km**

3

B) New L.T Lines:

Keeping in view the existing SEPCO network, the average L.T line per consumer is found as 5.85 meters as such, for additional 36265 consumers **212 KM** new L.T line will be required.

Circle	Length Of L.T Line per Customer (in Meter)	No. of Customers To Be Added	Total Length Of Line Required (in Km)
Sukkur	**5.85**	8922	52
Larkana		6963	41
Dadu		9790	57
Ghotki		5947	35
Shikarpur		4643	27
TOTAL		36265	212
		Say	**212 Km**

60% of this line will be recoverable from Domestic, Commercial and other customers including Housing Societies / Colonies to be electrified on cost deposit

basis. Whereas, the remaining 40% will be constructed free of cost in the form of extension of existing LT line for electrification of incoming customers.

C) Transformers:

The total MVA required for distribution transformers to be installed, on the basis of MVA installed per customer as on 30.06.2024, is calculated as 233 MVA.

The capacity-wise ratio of different sizes of transformers has been taken on the basis of existing ratio of installed transformers as on 30.06.2024.

T/F Capacity	25 KVA	50 KVA	100 KVA	200 KVA	400 KVA	630KVA
Ratio	**16%**	**24%**	**28%**	**18%**	**8%**	**6%**

D. Year wise detail of Transformers required:

Description	Unit	Quantities					
		2025-26	**2026-27**	**2027-28**	**2028-29**	**2029-30**	Total
Transformers							
a. 25KVA	NoS.	102	136	169	169	102	678
b. 50KVA	NoS.	76	102	127	127	76	508
c.100 KVA	NoS.	44	60	74	74	44	296
d.200 KVA	NoS.	14	19	24	24	14	95
e.400 KVA	NoS.	3	4	5	5	3	20
f.630 KVA	NoS.	2	2	3	3	2	12
Sub Total	**NoS.**	**241**	**323**	**402**	**402**	**241**	**1609**

E. Replacement of Overloaded Transformers,

Capacity	**NoS.**	**Replacement of Defective / Burnt Transformers**					
		2025-26	**2026-27**	**2027-28**	**2028-29**	**2029-30**	**Total**
50KVA	NoS.	53	71	89	89	53	355
100 KVA	NoS.	31	42	52	52	31	208
200 KV	NoS.	10	13	17	17	10	67
Sub Total	NoS.	94	126	158	158	94	630
This figure is included in above 1609 nos. new transformers.							

Out of this total 106 MVA, 64 MVA will be needed for electrification of Industrial, Irrigation & Bulk Supply customers which will be recovered from them before electricity is provided to their premises.

5.5.5 DOP- Scope-Targets:

The Year-Wise physical targets are set as under:

The Year-Wise physical targets are set as under:

Description	2025-26	2026-27	2027-28	2028-29	2029-30	Total
11 KV Line (KM)	**81.6**	**108.8**	**136**	**136**	**81.6**	**544**
LT Line (KM)	**31.8**	**42.4**	**53**	**53**	**31.8**	**212**
Transformers (No.)	**241**	**322**	**402**	**402**	**241**	**1609**
Against Burnt T/F	**94**	**126**	**158**	**158**	**94**	**630**
Customers(No.)	**5440**	**7253**	**9066**	**9066**	**5440**	**36265**

5.5.6 Capital Cost:

DOP Expansion & Rehabilitation Cost (M.Rs)						
Description	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**	**Total**
Cost of HT New Line	321	428	535	535	321	2140
Cost of LT New Line	78	105	131	131	78	523
Cost of Dist: Transformer	343	458	572	572	343	2288
Cost of Burnt & installation against over loaded T/F (Included in Above cost)	252.8	339.7	425.4	425.4	252.8	1696.2
Cost of Service Connection	262	350	437	437	262	1749
Gross Total M.Rs	1005	1340	1675	1675	1005	6700
Less Consumers Contribution (-)	643.7	858.3	1073.2	1073.2	643.7	4292.1
Net SPCO Share	361.2	481.6	602.2	602.2	361.2	2408.4

5.5.7 ELR (Distribution Rehabilitation Plan)

5.5.8 11kv and Below Distribution ELR Works:

The Distribution Rehabilitation Project will reduce system technical loss, resulting from power loss in the distribution conductor and equipment including loss due to additional current flowing in the system on account of poor power factor of consumer loads. The reduction in these losses will release additional power to the distribution system. Simultaneously the different rehabilitation measures will contribute in improving the distribution system supply voltage, continuity of supply, system stability, reliability and safety, which are the mandatory responsibilities of the power utility.

5.5.9 Assumptions for Material Requirements:

Basis and scope of material requirements taken as per historical scopes of proposals approved in past years. Under the Distribution Rehabilitation project is detailed in the following sections:

i) Basic Data:

- Total number of feeders selected for rehabilitation 60 Nos
- Total numbers of grid stations involved 68 Nos
- Average numbers of customers per transformer 30 Nos
- Average Length to be required for new feeder 8.2 KM
- New Line 5.2 km
- Rehabilitation / reconductoring of existing line 3.0 km

ii) ACSR Conductors for new express line construction:

It is estimated that 60 feeders will require construction of express lines for their bifurcation. On the average 4.53 km of 3-phase HT line will be constructed per feeder. The overall share of different ACSR conductors in the total of 272 Km of lines is calculated as below: -

Osprey	20%	272 x 0.20	54 KM Line
Dog	50%	272 x 0.50	136 KM Line
Rabbit	30%	272 x 0.30	82 KM Line
Total			272 KM Line

Note:- Actual quantities required as per 3-Phase and wastage)

iii) 11 KV Line Re-Conductoring:

Estimated Re-Conductoring based on sample studies, And historical works / proposals done		03km
Total rehabilitation HT line		60 km
Estimated % share of different conductors in Re-Conductoring:		
Osprey	20%	12.0 km
Dog	65%	39 km
Rabbit	15%	9.0 km
Number of feeders for rehabilitation		20 No
Therefore, total Re-Conductoring length (20 x 03)		60 Km

HT Pcc Poles will be installed in rehabilitation area considering 20% new installation and span of average 200 feet to meet rehabilitation criteria as Osprey, Dog and Rabbit has been proposed for rehabilitation.

Steel cross arm and allied material has taken 25% as wastage and dead or angle locations.

Note:- (Actual quantities required as per 3-Phase and wastage)

iv) New Distribution Transformers

The sample studies from the distribution transformers load data reveals that out of 40447 nos. various capacity if distribution transformers installed under SEPCO.

Total 3768 Distribution transformers were recorded overload beyond (80% - 100% and above), the capacity of these transformers calculated and found 188 MVA.

The optimal case prepared and considered the ongoing process of control over theft, which will reduce overloading of Transformers, however proposed addition to cater future load growth and mitigate this over loading in planned period.

It has been planned to add 27 MVA during Planned period, however in addition to this in DOP plan additional transformers proposed for future load growth.

Year	2025-26	2026-27	2027-28	2028-29	2029-30	Total
MVA to be added	5.2	5.05	5.7	5.4	5.6	27

Share of Different Rating of Transformers:

50 KVA 35% .
100 KVA 35%
200 KVA 30%

YEAR	50 KVA	100 KVA	200 KVA	Total Year WISE
	35%	**35%**	**30%**	
2025-26	12	18	14	44
2026-27	15	17	13	45
2027-28	18	18	15	51
2028-29	20	16	14	50
2029-30	18	15	16	49
Total	83	84	72	239

vi) New LT Lines:

These new transformers will be installed on one point secure supply or through installation of ABC Cable.

New Line for 60 nos. LT Proposals will be required , average 0.44 KM LT line per LTP will be required total 27 KM will be required.

60% Wasp of 27km 16.2 km
40% Ant of 27 km 10.8 KM

Note: - (Actual quantities required as per 3-Phase+ Neutral and Street light) and wastage)

vii Installation of ABC:

Replacement of Bared LT conductor with installation of ABC has also been proposed to reduce administrative loss / theft. An average 300 meters of ABC has been proposed per proposal for following various capacity transformers and their required sizes are as under

- 3X95+95+25 (3-Phase with Neutrals and Street Light for 200 KVA).
- 3X95+95 (3-Phase with Neutrals without Street Light for 200 KVA),
- 3X70+70+25 (3-Phase with Neutrals and Street Light for 100 KVA.
- 3X70+70, (3-Phase with Neutrals without Street Light for 100 KVA)
- 3X50+50+25 (3-Phase with Neutrals without Street Light for 50 KVA),
- 3X50+50 (3-Phase with Neutrals without Street Light for 50 KVA),

Above cable with allied material has been proposed to curb the theft.

S #	Description	Unit	2025-26	2026-27	2027-28	2028-29	2029-30	Total
1	ABC Cable for Securing	Nos.	474	488	502	520	535	2519
		KM	142	146	151	156	161	756

viii) Earthing:

The Requirement of Earthling set has been incorporated in unit cost also replacement of broken earth has been proposed in HSE Plan to replace defective earthing of HT/LT poles and Distribution Transformers, found if any for which tentative 1000 earthing per year has been planned.

ix) 11 KV New Panels:

Total of 60 No. 11 KV panels will require to be added at an average of one for each express feeder to be built for bifurcation of existing feeders, saved 11 KV Panel of new feeder on proposed new grid station will be utilized against rehabilitation of existing deteriorated panels.

Village Electrification Works:

(Nos.)

Sr. No.	Description	Total No.	2025-26	2026-27	2027-28	2028-29	2029-30
1	Village Electrification	Village electrification is being done through various federal and provincial schemes, after recommendation by sponsoring agency, feasibility / cost submitted after realization of funds schemes started. No fix amount or scope of any year					

Deposit **Works**:

If any applicant opts for installation of dedicated system instead of obtaining connection from a Common Distribution System, the same shall be provided on cost deposit basis.

5.5.17 Overall Benefits of ELR Project (HT & LT & ABC PROPOSALS):

Basis of benefits assumed from average historical benefits achieved from HT, LT and ABC, therefore Average per unit benefits have been considered for calculation of future savings, tabulated under.

ELR BENEFITS STATEMENT											
YEAR	HTP			LTP			ABC			YEARLY	COMMULATIVE
	BENEFIT/ PEROPOSAL KWH	HTP NOS.	TOTAL BENEFITS M.KWH	BENEFIT/ PROPOSAL KWH	LTP NOS.	TOTAL BENEFITS M.KWH	BENEFIT/ PROPOSAL KWH	ABC NOS.	TOTAL BENEFITS M.KWH	M.KWH	M.KWH
2025-26	1169427	12	14.0	25750	7	0.18	25750	474	12.2	26.42	26.42
2026-27	1513098	15	22.7	25750	10	0.26	25750	488	12.6	35.52	61.94
2027-28	1296031	13	16.8	25750	12	0.31	25750	502	12.9	30.08	92.02
2028-29	2215430	11	24.4	25750	15	0.39	25750	520	13.4	38.15	130.17
2029-30	2012012	9	18.1	25750	16	0.41	25750	535	13.8	32.30	162.47
2025-30		60	96.1	25750	60	1.5	25750	2519	64.9	162.5	162.47

DIIP-15 DOP Expansion Works (Optimal Achievable):

DIIP-15 Scope of Works for 11 Kv & Below Expansion DOP (Optimal Achievable))								
Sr No.	Description	Unit	Quantities					
			2025-26	2026-27	2027-28	2028-29	2029-30	Total
A	HT WORKS							
1	New HT Line							
	Nos. of Proposals	NoS.	New Line for new consumers					
	Length of New HT Line	KM	**81.6**	**108.8**	**136**	**136**	**81.6**	**544**
2	Transformers							
	a. 25KVA	NoS.	102	136	169	169	102	678
	b. 50KVA	NoS.	76	102	127	127	76	508
	c.100 KVA	NoS.	44	60	74	74	44	296
	d.200 KVA	NoS.	14	19	24	24	14	95
	e.400 KVA	NoS.	3	4	5	5	3	20
	f. 630 KVA	NoS.	2	2	3	3	2	12
	Sub Total	NoS.	**241**	**323**	**402**	**402**	**241**	**1609**
3	11 KV Capacitors							

DIIP-15 Scope of Works for 11 Kv & Below Expansion DOP (Optimal Achievable))								
Sr No.	Description	Unit	Quantities					
			2025-26	2026-27	2027-28	2028-29	2029-30	Total
	a. Fixed 450 KVAR	NoS.	Nil	Nil	Nil	Nil	Nil	Nil
	b. Fixed 900 KVAR	NoS.	Nil	Nil	Nil	Nil	Nil	Nil
	c. Others	NoS.	Nil	Nil	Nil	Nil	Nil	Nil
	Sub Total	NoS.	Nil	Nil	Nil	Nil	Nil	Nil
4	11 KV Panels	NoS.	Nil	Nil	Nil	Nil	Nil	Nil
	Scope of Works for LT Expansion							
B	New LT Line							
1	NoS. of LT Proposals	NoS.	New line for new consumers					
	Length of LT Line	KM	31.8	42.4	53	53	31.8	212
2	LT Capacitors	NoS.	Nil	Nil	Nil	Nil	Nil	Nil
	a. Different KVARS	NoS.	Nil	Nil	Nil	Nil	Nil	Nil

DIIP-16 DOP Rehabilitation Works (Optimal Achievable):

DIIP-16 Scope of Works for 11 Kv & Below Rehabilitation DOP								
Sr No.	Description	Unit	Quantities					
			2025-26	2026-27	2027-28	2028-29	2029-30	Total
A	**Rehabilitation of HT Lines**							
1	**Numbers of Proposals**	**NoS.**	**NIL**	**NIL**	**NIL**	**NIL**	**NIL**	**NIL**
	Bifurcation	**KM**	**NIL**	**NIL**	**NIL**	**NIL**	**NIL**	**NIL**
	Reconductoring	**KM**	**NIL**	**NIL**	**NIL**	**NIL**	**NIL**	**NIL**
	Re-Routing	**KM**	**NIL**	**NIL**	**NIL**	**NIL**	**NIL**	**NIL**
2	**Replacement of Overloaded Transformers**	**This figure is included in 1609 DTs in DOP**						
	a. 50KVA	**NoS.**	**30**	**41**	**51**	**51**	**30**	**203**
	b.100 KVA	**NoS.**	**18**	**24**	**30**	**30**	**18**	**118**
	c.200 KV	**NoS.**	**6**	**8**	**10**	**10**	**6**	**38**
	Sub Total		**54**	**72**	**90**	**90**	**54**	**360**
3	**Replacement of Defective / Burnt T/F**	**This figure is in addition to 1609 DTs in DOP**						
	a. 50KVA	**NoS.**	**53**	**71**	**89**	**89**	**53**	**355**
	b.100 KVA	**NoS.**	**31**	**42**	**52**	**52**	**31**	**208**
	c.200 KV	**NoS.**	**10**	**13**	**17**	**17**	**10**	**67**
	Sub Total		**94**	**126**	**158**	**158**	**94**	**630**

DIIP-15 DOP Expansion Works (Miscellaneous works☺

Scope of Works for 11 Kv & Below Rehabilitation								
Sr No.	Description	Unit	Quantities					
			2025-26	2026-27	2027-28	2028-29	2029-30	Total
1	Vehicles							
	a. Crane Mounted Trucks- 08 Tons	NoS.	-	-	1	-	-	1
	b. Crane Mounted Trucks- 05 Tons	NoS.	-	2	-	-	-	2
	C. Bucket Mounted Trucks	NoS.	5	8	7	-	-	20
	d. Others	NoS.	0		0	0		0
	Sub Total	NoS.	5	10	8	0	0	23
2	Tools & Plants (T&P) and PPE							
	a. Instruments & Test Equipment	NoS.	0		0	0	0	0
	b. Removal of Hazards	NoS.	850	960	1000	1150	1300	5903
	c. Installation of Earthing on HT/LT/TF	NoS.	1000	1000	1000	1000	1000	5000
	d. Line man tools other than PPE	NoS.	32550	33675	34780	35855	36900	173760
	e. Arc Proof uniform for GSO	NoS.	-	136	-	0	0	136
	Sub Total	NoS.	34400	35771	36780	38005	39200	184799
3	List of New offices & Buildings							
	a. New Grid stations	NoS.	1	1	0	0	0	2
	b. Other offices and Misc. M&R Works mentioned in Civil Plan	NoS.						
	Sub Total	NoS.	1	1	0	0	0	2

DIIP-16 ELR Expansion New Works (Optimal Achievable):

DIIP-16- Scope of Works for 11 Kv & Below Expansion ELR (Optimal Achievable)								
Sr No.	Description	Unit	Quantities					
			2025-26	2026-27	2027-28	2028-29	2029-30	Total
A	HT WORKS							
1	New HT Line							
	Nos. of Proposals	NoS.	15	12	13	11	9	60
	Length of New HT Line	KM	54.36	67.95	58.89	49.83	40.77	272
2	Transformers							
	a. 25KVA	NoS.	0	0	0	0	0	0
	b. 50KVA	NoS.	12	15	18	20	18	83
	c.100 KVA	NoS.	18	17	18	16	15	84
	d.200 KV	NoS.	14	13	15	14	16	72
	Sub Total	NoS.	44	45	51	50	49	239.0
3	MVA to be Added	MVA	5.2	5.1	5.7	5.4	5.6	27.0
4	11 KV Capacitors							
	a. Fixed 450 KVAR	NoS.	15	12	13	13	9	60
	b. Fixed 900 KVAR	NoS.	15	12	13	11	9	60
	Sub Total	NoS.	30	24	26	24	18	120
5	11 KV Panels	NoS.	15	12	13	11	9	60
6	**HT Cable**	**Km**	**2.8**	**2.4**	**2.6**	**2.8**	**3**	**14**

DIIP-16- Scope of Works for 11 Kv & Below Expansion ELR (Optimal Achievable)								
Sr No.	Description	Unit	Quantities					
			2025-26	2026-27	2027-28	2028-29	2029-30	Total
Scope of Works for LT Expansion								
B	New LT Line							
1	**NoS. of LT Proposals**	**NoS.**	**7**	**10**	**12**	**15**	**16**	**60**
	Length of LT Line	**KM**	**3**	**4**	**5**	**7**	**7**	**27**
C	**Installation of ABC Cable**							
1	**NoS. of ABC Proposals**	**NoS.**	**474**	**488**	**502**	**520**	**535**	**2519**
	Length of ABC	**KM**	**142**	**146**	**151**	**156**	**161**	**756**
2	**Energy Meters, CTs & ATBs**	**Nos.**	**0**	**0**	**0**	**0**	**0**	**0**
3	**PVC Cables**	**Km**	**0**	**0**	**0**	**0**	**0**	**0**
4	**T&P & PPE (30 T&P +12 PPE)**	**MIX**	**42**	**42**	**42**	**42**	**42**	**42**

DIIP-16 ELR Rehabilitation Works (Optimal Achievable):

DIIP-16 Scope of Works for 11 Kv & Below Rehabilitation ELR (Optimal Achievable)								
Sr No.	Description	Unit	Quantities					
			2025-26	2026-27	2027-28	2028-29	2029-30	Total
A	Rehabilitation of HT Lines							
1	Numbers of Proposals	NoS.	0	0	0	11	9	20
	Bifurcation	KM	0	0	0	33	27	60
	Reconductoring	KM	0	0	0	0	0	0
	Re-Routing	KM	0	0	0	0	0	0
2	Replacement of Overloaded Transformers							
	a. 50KVA	NoS.	0	0	0	0	0	0
	b.100 KVA	NoS.	0	0	0	0	0	0
	c.200 KV	NoS.	0	0	0	0	0	0
	Sub Total		0	0	0	0	0	0

DIIP-17 Status of Study Based Distribution System Planning Based on GIS Mapping and the Transition Plan:

Sr No.	Description	Unit	Quantities					
			2025-26	2026-27	2027-28	2028-29	2029-30	Total
GIS MAPING								
1	HT Mapping							
	Nos. of 11 kv feeders Mapped	NoS.	150	223	220	0	0	593
	Length of HT Line Mapped	KM	6253	9297	9172	0	0	24722
2	LT Mapping							
	Nos. of LT Mapped	NoS.	30	30	40	0	0	100
	Length of LT Line Mapped	NoS.	4005	4005	5340	0	0	13350
3	Tools Required							
	GIS Mapping Software Licenses	NoS.	SEPCO is in process of setting up Web-Based GIS Enterprise including all planning tools and has kept Rs.400 Million for the Transition Plan. Required planning tools are part of this Transition Plan					
	Hardware including Plotters and Computes	NoS.	NIL	NIL	NIL	NIL	NIL	NIL

DIIP-17-Study Base Planning using GIS Maps with Modern Planning Tools- Transition Plan								
Sr No.	Description	Unit	Quantities					
			2025-26	2026-27	2027-28	2028-29	2029-30	Total
GIS MAPING		No Transition Plan available. It will be decided once the consultant for Web-based GIS Enterprise (Complete Solution) is hired, (Hiring is under process)						
1	HT							
	Circles							
2	LT							
	Nos. of LT Lines							
3	Tools Required							
	Simulation Software Licenses							
	Hardware including Plotters and Computes							

5.6 ASSETS PERFORMANCE Monitoring SYSTEM (Theft Control)

Asset Performance Management System (APMS) plan is aimed at implementation of APMS on general duty distribution transformers of the capacity of 200 kVA and 100 KVA, APMS will result in ensured asset safety (transformer burnt ratio), improved Operational efficiency and reliability reduced ATC losses and improved planning and management of distribution assets of SEPCO. Equipped with disconnection/Reconnection facility, APMS will enable improved management of ATC losses without interrupting the supply of consumers where ATC losses are low. Installation of Circuit Breakers on distribution transformers will minimize damaging of Distribution Transformers due to overload and faults.

APMS SCOPE

2025-26			2026-27			2027-28			Total
100 kVA	200 kVA	Sub Total	100 kVA	200 kVA	Sub Total	100 kVA	200 kVA	Sub Total	Nos.
622	341	963	1,244	682	1,926	1,244	682	1,926	4,815

APMS COST

2025-26	2026-27	2027-28	Total Million Rs
517	1017	1077	2611

Above APMS plan is based on current numbers of 200 kVA and 100 kVA general duty transformers installed in SEPCO. To cover new transformers and those of capacity 50 kVA and below, based on lessons learned from initial phase as mentioned above, SEPCO may need extra funding and investment approval from NEPRA.

5.6 COMMERCIAL IMPROVEMENT PLAN

5.6.1 AMI / AMR (Automated Metering Infrastructure)

It has been planned to install AMI system on Industrial, Federal Govt, Agricultural and commercial, and remaining Government of Sind connections along with MCO, where ever required as well as start on domestic connections, this will improve accuracy and neglecting billing disputes of connections above 05 KW.

SEPCOs AMI projects aims at replacing existing energy meters with AMI enabled energy meters for automatic meter reading as well collection of consumer load profiles, critical events and to control pilferage of electricity through remote detection of theft of electricity and remote disconnection in case of non-recovery. SEPCO has established an AMI cell comprising a dedicated team of professionals for operation and management of this AMI Programme. In line with SCI, AMI project has been divided into -phases as below;

Following is the planned scope of work.

Sr. No.	Description	Total	2025-26	2026-27	2027-28	2028-29	2029-30	Total No.
1	**AMI / AMR Own Sources**	Type	Industrial & MCO	Federal , Agri: Dom: Comm: MCO	**Com: Urban**	**Com: Urban**	**Com: Urban**	TOU/ TOD & MCO
		3-Phase	**10123**	**8617**	**-**	**-**	**-**	**18740**
		1-Phase	**500**	**-**	**20000**	**20000**	**21659**	**62159**
		Total	**10623**	**8617**	**20000**	**20000**	**21659**	**80899**
		M.Rs	**560.09**	**465.48**	**540**	**540**	**585**	**2690**
2	**AMI / AMR** ADB Funding	**NoS.**	**30000**	**20000**	**-**	**-**	**-**	**50000**
		M.Rs	**2169**	**953**	**-**	**-**	**-**	**3122**
Total		**NoS.**	**40623**	**28617**	**20000**	**20000**	**21659**	**130899**
		M.Rs	**2729.09**	**1418.48**	**540**	**540**	**585**	**5812.57**

In addition to above plan to install electronic meters against no meters at site or defective meters, following is proposal.

Sr. No.	Description	Total	2025-26	2026-27	2027-28	2028-29	2029-30	Total No.
	Electronic / Static Meters	**NoS.**	10000	10000	10000	10000	10000	**50000**
		M.Rs	133	141	150	160	170	754

Criteria for meter calculation are as under Single Phase 70%; Three Phase TOD - 20% and Three Phase TOU -05%, escalation has been added @ 6.5% per year.

5.6.2 CUSTOMER FACILITATION

5.6.2.1 Establishment of Customers Care Centers;

Customer care centers has been proposed at circle and division level initially 19 nos. customers care centers have been proposed to

- Facilitate SEPCO consumers
- Reduce consumer complaints.
- Creating better coordination / relation between consumers and SEPCO.

5.6.2.2 Establishment of Modern Sub Divisions;

03 nos. existing subdivision has been proposed as model sub divisions.

- Sukkur-II,Jinnah Bagh, Bhirya Road

Following steps will be taken for improvement of multi directional improvement Plan through digitization.

5.6.2.3 Special Desk for Industrial Consumers;

As per Strategic directions of Chairman Board of Directors SEPCO, to facilitate industrial consumers, in order to provider better customer services and improve customer responsiveness, and reliability of supply, special desk has been proposed at Regional Customer Service Centre Sukkur, where dedicated SDO's / Assistant managers will respond industrial consumers round the clock and forward their complaints to concerned circle head, XEN, SDO and follow-up till the resolution of complaint.

This strategy enhances SEPCO Business and increase in Revenue in the shape of increased sale.

5.6.2.4 Conversion of Industrial Dominated Feeders to Independent Industrial Feeders.

As per Strategic directions of Chairman Board of Directors SEPCO to facilitate industrial consumers, comprehensive working has been carried and it has been pointed out that out of 591 feeders,73 nos. feeders found industrial dominated with load above 500 kw having 1641 industrial consumers with sanctioned load of 188 MW paid 9.7 Billion during 2023-24, initially 11 NoS. Industrial dominated feeders have been selected for Bifurcation, it is proposed that industrial consumers will be shifted to new Industrial feeders, and remaining general connection area will be on existing feeders.

This strategy enhances SEPCO Business and increase in Revenue in the shape of increased sale, economic growth of company and providing benefits to peoples of vicinity and industrialists.

Above Proposal will be finalized after proper preparation of Company based policy duly approved by board of directors SEPCO.

BIFURCATION OF INDUSTRIAL DOMINATED FEEDERS		
S.NO	**circle**	**Name**
1	SUKKUR	Bifurcation of 11 KV industrial feeder Sukkur
2		Bifurcation of 11 KV Shahi bazar feeder Khairpur
3		Bifurcation of 11 KV Panj Hati feeder Khairpur
4		Bifurcation of 11 KV Tando Masti feeder Pir jo Goth
5	Ghotki	Bifurcation of 11 KV industrial feeder Saleh pat
6		Bifurcation of 11 KV industrial feeder Ghotki
7		Bifurcation of 11 KV Rehmo Wali feeder Ghotki
8		Bifurcation of 11 KV City feeder Ubauro
9	Shikarpur	Bifurcation of 11 KV Khanpur feeder Khanpur
10		Bifurcation of 11 KV City-IV feeder Kandhkot
11		Bifurcation of 11 KV Colony feeder Kashmore

DIIP-18 Integrated Commercial Improvement Plan:

DIIP-18-		COMMERCIAL IMPROVEMENT PLAN						
Sr No.	Description	Unit	Quantities					
			2025-26	2026-27	2027-28	2028-29	2029-30	Total
A	AMR Meters	NoS.	40623	28617	20000	20000	21659	130899
B	Electronic / Static Meters	NoS.	10000	10000	10000	10000	10000	50000
C	Consumer Census	NoS.	1	0	0	0	0	1
D	Model Sub Divisions	NoS.	0	3	0	0	0	3
E	Establishment of customer care centers	NoS.	0	19	0	0	0	19
F	Special window for Industrial consumers to Improve reliability	NoS.	1	0	0	0	0	1
	Total	NoS.	50625	38639	30000	30000	31659	180923

5.7. IT / MIS Improvement Plan (Financial Management)

An independent IT directorate is operational at SEPCO to look after the complete Management Information System (MIS) related to Company's operation The Basic functions of Computer Centers are to manage complete billing process, providing up-dated defaulter list, management of SEPCO web site, updating of SEPCO MIS operations including losses and recovery, ERP is also functional for HR, Finance, Inventory and Project monitoring and controlling, employees pay rolls management, computer network management at Company level, Hardware, Software development, maintenance and services etc.

Table-Scope and cost of IT / MIS, IBS, AMI/AMR Implementation Plan includes ERP implementation, software, system study and licenses and Laptops, Computers and printers

DIIP-19- Financial Improvement Plan:

DIIP-19- Financial Improvement Plan								
Sr No.	Description	Unit	Quantities					
			2025-26	2026-27	2027-28	2028-29	2029-30	Total
A	ERP System Implementation	Nos	1	1	1	1	1	1
B	Revamping the Internal Audit	Nos.	1	1	1	1	1	1
C	IBS / Cyber Security/AMI	Nos	1	0	0	0	0	1
D	Software Licenses, System Study for T&D Losses, new software for Demand forecast, PSS-E & Misc.	All will be required on need basis						
E	Computers, Laptops, Printers,, Mobile phones of MMR	All will be required on need basis						
	Total	Nos	3	2	2	2	2	3

5.8 Integrated Human Resources Improvement Plan:-

5.8.1 Base Line

The Human Resource and Administration directorate SEPCO team consists of very Skilled & qualified professionals with admirable analytical approach.
SEPCO HR department overlooks all the HR matters of the company including hiring of new workforce against vacant positions. At present SEPCO is facing acute shortage of staff which poses a challenge in reliable and efficient operation of the company., Existing position of Workforce in SEPCO

Description	Officers		Officials		Grand Total
	Technical	Non-Technical	Technical	Non-Technical	
Sanctioned	**249**	**118**	**5178**	**4028**	**9573**
Working	**173**	**29**	**3711**	**2244**	**6157**
Vacant	**76**	**89**	**1467**	**1784**	**3416**
% Vacant	**31%**	**75%**	**28%**	**44%**	**36%**

5.8.2 IMPACT OF AUTOMATION & FUNCTIONAL IMPROVEMENT ON HR REQUIREMENTS

In order to prepare future workforce requirements, impact of automation and functional improvements in coming years has been taken into account. The existing workforce yardsticks prepared against number of consumers to be managed by an office is being reviewed in view of functional improvements like ERP, AMI, etc. However, in order to operate these new projects additional workforce is also required which has also been taken into account.

5.8.3 Additional HR Requirements

Based on the current workforce position, anticipated consumer growth and future expansion plans in SEPCO, following expansion in sectioned posts is proposed to ensure smooth, reliable and efficient operations across departments of SEPCO.
Table 12-3 planned expansion in sanctioned posts

S.NO	Office	Nos. of Officers	Manpower Requirement (Tentative)
1	02- Operation Circles	06	52
2	02-Operation Sub Divisions	02	42
3	05- Grid station Staff	0	95
4	Tentative additional Staff Requirement	08	189

5.8.4 UPDATED POSITION OF HR WORK FORCE REQUIREMENTS

Based on the current workforce position and proposed expansion in workforce of SEPCO, updated workforce position will be as tabulated below;

Description	Officers		Officials		Grand Total
	Technical	Non-Technical	Technical	Non-Technical	
Sanctioned	249	118	5178	4028	9573
Proposed	06	02	119	62	189
Total	255	120	5297	4090	9762
Total Posted	178	29	3711	2244	6157
Shortfall	77	91	1586	1846	3605
%	31	75	29	44	36

Above sanctioned strength is based on current fundamentals, however, with gradual expansion in network outreach, customer base and advent of CTBCM related interventions, SEPCO may need to have more manpower.

Hiring against vacant posts arising due to the mismatch between sanctioned strength and actual working manpower, SEPCO shall take all possible measures to recruit suitable incumbents. However, such recruitment will be subject to approvals of BOD and fiscal space approved by NEPRA in SEPCO tariff.

5.8.5 HR Management;

Under the leadership and guidance of the Chairman BOD SEPCO and Chief Executive Officer of the Company, HR & Administration directorate manages the recruitment and Placement of the "right people on right jobs" as well as enhancing their levels of motivation, morale and job satisfaction to help in achieving the goals of the Company.

The Human Resource and Administration directorate SEPCO team consists of very Skilled & qualified professionals with admirable analytical approach.

Main functions of HR Management:

- Manpower / Establishment
- Recruitment and Selection
- Appointment, Deployment, Re-deployment / Transfers
- Compensation and Benefits Administration
- Career Planning and Promotions
- Performance Management
- Incentives Administration
- Training and skill Development
- Supervision over Employees' Health, Welfare, Safety and Security

- Transportation
- Electronic Communication
- Custodial Services for Company records
- Correspondences and other Communication Services
- Office / Facilities Management
- Legal Matters
- Discipline / Enquiries
- PERs
- Labor Union / Labor Related Matters
- Sports
- Property Management
-

5.8.6 Capacity Building:

During the FY: 2023-24, 21 officers (BPS-17 to 19) and 22 Officials completed training courses from the WAPDA Staff College Islamabad & WAPDA Engineering Academy Faisalabad, and @ RTC Sukkur Management, technical and special training are ongoing activity , it has been decided to arrange Training of Employees through external training institution, following is tentative scope and cost of capacity building of employees.

5.8.7 Establishment and Operationalization of MIRAD:

In line with NEPRA's approval of CTBCM and roadmap, SEPCO has established Market Implementation & Regulatory Affairs Department (MIRAD). The charter of MIRAD, as envisaged by NEPRA and the Ministry of Energy (Power Division) includes the following functions:

- Bilateral power purchase contract agreement
- Legal and Regulatory affairs
- Billing and settlement with the market operator
- Financial Health Assessment / Security Cover
- Demand Forecasting
- Transmission planning.
- Integrated Business Planning & Performance Monitoring

Further, Policy, Strategy, & Marketing Reforms (PSM) Committee of the Board of Directors of SEPCO is also in place to support and guide MIRAD in complying with its charter as directed by NEPRA and the Ministry of Energy (Government of Pakistan).

5.8.7 Annual Employee Recognition Event

It is the duty of an organization to appreciate its employees because as a matter of fact, an organization is in existence only because of its employees. Therefore, SEPCO will organize an annual function to celebrate its successes and achievement in the last year as well as to recognize the employees that have given SEPCO the reasons for celebration through their dedication and hard work. This will not only motivate the employees but will consequently result in creating harmony and mutual understanding among them.

DIIP-20- Human Resources Improvement Plan

DIIP-20- HUMAN RESOURCES IMPROVEMENT PLAN								
Sr No.	Description	Unit	Quantities					
			2025-26	2026-27	2027-28	2028-29	2029-30	Total
A	Revamping of Training Centers	NoS.	Safety T&P, Laptops, CCTV, Lab equipment, course material, Yard stick survey, New furniture, RTC Web development etc					
B	Management Trainings of Officers	NoS.	12	12	12	12	12	60
C	Technical Trainings of Officers	NoS.	12	12	12	12	12	60
D	Trainings of officials	NoS.	350	440	450	450	450	2140
E	Training of Employees through external training institution	NoS.	5	5	5	5	5	25
F	Total	NoS.	379	469	479	479	479	2285

DIIP21- Staffing Plan aligned with Investment Plan

A. Manpower Required to fill Existing vacancies							
#	Nomenclatures	2026	2027	2028	2029	2030	Total
1	Chief Commercial & Customer Services Officer (CCCSO)	1					1
2	Chief Financial Officer (CFO)	1					1
3	Chief Human Resource and Admin Officer (CHRAD)	1					1
4	Chief Information & Communications Technology Officer (CICTO)	1					1
5	Chief Legal Officer (CLO)	1					1
6	Chief Supply Chain Management Officer (CSCMO)	1					1
7	Chief Transmission & Distribution Officer (CTDO)	1					1
8	Chief Internal Auditor	1					1
9	Company Secretary	1					1
10	Chief Engineers	2					2
11	Customer Services Director	1					1
12	Director General **MIRAD**	1					1
13	Superintending Engineers / Managers	2					2
14	Manager (Admn)	1					1
15	Manager (L&L)	1					1
16	Manager (MM)	1					1
17	Manager (Corporate Accounts)	1					1
18	Manager (Project Financing)	1					1
19	Manager (Contract Management & Regulatory Affairs) **MIRAD**	1					1
20	Manager (Legal / Contract) **MIRAD**	1					1
21	Director HSE	1					1
22	RSM / DM (MM)	***4***					4
23	Senior Engineer / Deputy Managers	***8***					8
24	Deputy Manager (HR)	***1***					1
25	Deputy Manager (Services)	***1***					1
26	Deputy Manager (TMP)	***1***					1
27	Deputy Manager (Security)	***1***					1
28	Deputy Manager (Transport)	***1***					1
29	Deputy Manager (PRO)	***1***					1
30	Deputy Manager (WMC)	***1***					1
31	Deputy Manager (L&L)	***1***					1
32	Deputy Manager Computer / MIS	***2***					2

A. Manpower Required to fill Existing vacancies							
#	Nomenclatures	2026	2027	2028	2029	2030	Total
33	Deputy Manager (Civil)	***1***					1
34	Deputy Manager (CA)	***2***					2
35	Deputy Commercial Manager	***2***					2
36	Deputy Manager (I.A)	***1***					1
37	Deputy Manager (P.F)	***1***					1
38	Deputy Manager Taxation & Banking	***1***					1
39	Deputy Manager (Tariff)	***1***					1
40	Deputy Manager (PMC)	***1***					1
41	Deputy Manager (Monitoring & Evaluation)	***1***					1
42	Deputy Manager (Contract Management) - **MIRAD**	***1***					1
43	Deputy Manager (Transmission & Planning) - **MIRAD**	***1***					1
44	Deputy Manager (Regulatory Affairs) - **MIRAD**	***1***					1
45	Deputy Manager (Demand Forecasting) - **MIRAD**	***1***					1
46	Deputy Manager (Finance) - **MIRAD**	***-***					-
47	Deputy Manager (Legal / Contract) - **MIRAD**	***1***					1
48	Assistant Manager Field Store / Assistant Manager (MM)	***9***					9
49	Assistant Manager (Customer Services / Revenue Officer)	***3***					3
50	Assistant Manager (CA) / Budget & Accounts Officer	***12***					12
51	Transport Officer	***1***					1
52	Junior Engineers / SDOs	***5***					5
53	Audit Officer	***3***					3
54	Assistant Manager (Computer)	***8***					8
55	SDO (Civil)	***2***					2
56	Head Master	***1***					1
57	Assistant Manager (Admn)	***3***					3
58	Assistant Land Acquisition Officer	***1***					1
59	Assistant Manager (Project Financing)	***2***					2
60	Sports Officer	***1***					1
61	Assistant Manager (Social Impact / Environment)	***1***					1
62	Assistant Manager (Finance) **MIRAD**	***2***					2
63	Assistant Manager (Regulatory Affairs) - **MIRAD**	***1***					1

A. Manpower Required to fill Existing vacancies							
#	Nomenclatures	2026	2027	2028	2029	2030	Total
64	Assistant Manager (Contract Management) -MIRAD	*1*					1
65	Assistant Manager (Admn.) - MIRAD	*1*					1
66	Assistant Manager (Transmission & Planning) - MIRAD	*1*					1
67	Network Administrator	*1*					1
68	Database Administrator	*1*					1
69	Functional Lead (SAP-FI-CO	*1*					1
70	Functional Lead (SAP-Material Management)	*1*					1
71	Functional Lead (Project Management & Costing)	*1*					1
72	Function Lead SAP-HRM	*1*					1
73	Assistant Audit Officer	*2*					2
74	Assistant Budget & Accounts Officer	*-*					-
75	Computer Operator	*23*					23
76	Office Superintendent	*-*					-
77	Recovery Officer	*1*					1
78	Stenographer-I / APS	*2*					2
79	Supervisor Data Coder	*7*					7
80	Supervisor Data Entry	*3*					3
81	Tehsildar	*1*					1
82	Trained Graduate Teacher	*3*					3
83	Value Ledger Keeper / Store System Supervisor	*9*					9
84	Accounts Assistant	15	15	15	12		57
85	Assistant / Head Clerk	3	3	3	3		12
86	Audit Assistant	10	5	5	2		22
87	Circle Head Draftsman / Draftsman Grade-A	1	1	1	1	1	5
88	Commercial Assistant	20	20	20	16		76
89	Commercial Superintendent	1					1
90	Data Entry Operator	20	20	20	20	-	80
91	Foreman	4	2				6
92	Line Superintendent-I / Line Foreman-I	50	25	25	25		125
93	Operator	1					1
95	Senior Store Keeper	4	2	2			8
96	SSO-I	10	5	5	5		25
97	Test Inspector	2	1				3
98	Assistant Foreman (AFM)	8	8	8			24

A. Manpower Required to fill Existing vacancies							
#	Nomenclatures	**2026**	**2027**	**2028**	**2029**	**2030**	Total
99	Attendant		4				4
100	Divisional Head Draftsman / Draftsman Grade-B	5	3	3	2		13
101	Junior Store Keeper	3	2	2	2		9
102	Line Superintendent-II / Line Foreman-II	7	7	7	7		28
103	Meter Supervisor G-I	15	10	10	10	7	52
104	SSO-II	15	10	8	4		37
105	Steno-II	5	5	10	10	16	46
106	Sub Engineer (Civil)	1	1	1	1		4
107	Test Assistant	3	2				5
108	Assistant Drafatsman (ADM)	3	3	3			9
109	Fitter Grade-I	8	8	8	8	1	33
110	Lineman-I	50	40	40	36	30	196
111	Pesh Imam		1				1
112	Senior Clerk / UDC	28	28	28	28	28	140
113	Crane Operator	1					1
114	Fitter-II	2	2	2	2	2	10
115	Jr. Clerk LDC	50	30	30	30	32	172
116	Lineman-II	30	20	10	10	6	76
117	Meter Mechanic	1	1	1			3
118	Meter Reader	50	30	20	11		111
119	Moazan-Cum-Khateeb		1				1
120	Sub Station Attendant	8	8	8	8	8	40
121	Surveyor		2	2			4
122	Tracer	2		2			4
123	Security Sergeant / Gate Sergeant	3	3	3	3		12
124	ASSA	20	10				30
125	Bill Distributor	30	30	30	2		92
126	Helper	6	6	6	3		21
128	Security Guard	30	30	30	28		118
129	Vehicle Driver	30	30	30	24		114
130	Assistant Lineman	200	150	120	103		573
135	Store Helper	10	10	5	4		29
140	Chowkidar	20	20	10	7		57
141	Mali	**20**	20	20	20	2	82
142	Naib Qasid	50	50	50	50	11	211
143	Security Guard (Civilian)	2	2				4
144	Store Coolly	2	1				3
145	Sweeper / Sanitary Worker	30	17				47
		1 065	**704**	**603**	**497**	**144**	**3 013**
Note:- This segregation is tentative, actual post will be filled subject to lifting of ban and post requirement and allied approvals.							

DIIP21- Staffing Plan aligned with Investment Plan								
Sr No.	Description	Unit	Quantities					
			2025-26	2026-27	2027-28	2028-29	2029-30	Total
B	Staff required for future expansion							
1	Superintendent Engineer	NoS.	2	0	0	0	0	2
2	Steno Grade – I	NoS.	2	0	0	0	0	2
3	Dy. Manager (Tech)	NoS.	2	0	0	0	0	2
4	Dy. Commercial Manager	NoS.	2	0	0	0	0	2
5	Assistant Manager (Admn)	NoS.	2	0	0	0	0	2
6	Recovery Mukhtiarkar	NoS.	2	0	0	0	0	2
7	Technical Assistant	NoS.	2	0	0	0	0	2
8	Commercial Assistant	NoS.	2	0	0	0	0	2
9	Steno Grade – II	NoS.	2	0	0	0	0	2
10	Head Draughtsman	NoS.	2	0	0	0	0	2
11	Tracer	NoS.	4	0	0	0	0	4
12	Clerk	NoS.	8	0	0	0	0	8
13	Driver	NoS.	6	0	0	0	0	6
14	Naib Qasid (Peon)	NoS.	6	0	0	0	0	6
15	Security Guard	NoS.	6	0	0	0	0	6
16	Sweeper	NoS.	2	0	0	0	0	2
17	Sub Div: Officer	NoS.	0	0	1	0	1	2
18	Line Supdt:-1	NoS.	0	0	2	0	2	4
19	Line Supdt:-2	NoS.	0	0	3	0	3	6
20	Meter Supervisor	NoS.	0	0	1	0	1	2
21	Meter Reader	NoS.	0	0	5	0	5	10
22	Line Man-1	NoS.	0	0	9	0	9	18
23	Incharge SSO-1	NoS.	3	2	0	0	0	5
24	Shift SSO-2	NoS.	12	8	0	0	0	20
25	Asstt: Foreman	NoS.	3	2	0	0	0	5
26	Fitter Gr-2	NoS.	3	2	0	0	0	5
27	Electrician Gr-1	NoS.	3	2	0	0	0	5
28	Helpers	NoS.	12	8	0	0	0	20
29	Mali	NoS.	3	2	0	0	0	5
30	S/ SEARGEANT	NoS.	3	2	0	0	0	5
31	Security Guard	NoS.	12	8	0	0	0	20
32	Sweepers	NoS.	3	2	0	0	0	5
	Total (A+B)		109	38	21	0	21	189

HR IMPROVEMENT PLAN							
Sr. No.	**HR Improvement plan Items**		**Defined Scope**				
		Current year 2023-24	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**
A	Revamping of Training Centers	RTC Sukkur revamped partially and further improved by June 2025, however following additional items proposed during this Business plan. Laptops, CCTV, Lab equipment, course material, Yard stick survey, New furniture, RTC Web development etc. and other Operating and maintenance costs.					
B	Training of Employees through external training institution	Frequent nomination of SEPCO officer for professional courses/ workshop organized by the different institutions in order to update the officer to run the affairs through better management in line with modern practices.			The agreement with PIMS is under process, for enhancement of capabilities of SEPCO officers. However, other external trainings are being arranged. To design training scheduled for SEPCO employees through motivational speakers from private sector institution		
C	Provision of Safety T&P and promoting safety culture	• Distribution of PPE among the line staff working on the line. • Arranging Safety Seminars to educate line staff for their safety as per SOP. • Distribution of' 'F&P. • Control over issuance of PTWs. • Removal of Hazardous Points. • Monitoring of observance of safety codes.					
D	Human Resource information system implementation on	• HR data of SEPCO employees has been updated on HCM Module of ERP system. M/s Abacus is working on HCM module for HR work flow processes. • HCM including HRIS Module on completion of work flow process by M/s Abacus is implemented. • All HR functions are` fully integrated in ERP.					

HR IMPROVEMENT PLAN							
Sr. No.	HR Improvement plan Items		Defined Scope				
		Current year 2023-24	2025-26	2026-27	2027-28	2028-29	2029-30
E	IT infrastructure to support new initiatives	• Internal team to verify and update the current yard stick of company and proposal for restructuring. • Complete the Job Description of all categories. • Detail organizational analysis carryout to identify work duplication, redundant ness for framing organizational efficiency & effectiveness. • Currently almost all required Equipment available + Adding promotion quota for Qualified IT Staff. • Advertisement for hiring of IT staff is ready for publication to fill the shortage of IT Qualified & skilled members. • Further shortage will be filled through promotion as per policy. • Adding sophisticated IT Equipment.					
F	Improving the working environment	• Sense of equivalence enhancement. • Measures to create psychologically safe work place. • Physical improvement of work conditions in harmony					

5.9 COMMUNICATION IMPROVEMENT PLAN

5.9.1 Installation of SCADA

Supervision and control of infrastructure through SCADA Installation:

5.9.1.1 SCOPE OF SCADA WORK

During the period feasibility study will be carried out for installation of SCADA on 132 KV and 11 kv feeders, the after feasibility study and cost calculations, SCADA system will be installed.

S. #	Year	Scope	Cost in (Rs. (Million)
1	2029-30	Feasibility Study for installation of SCADA	60.0
(Estimated Million Rs)			**60.0**

5.9.2 Communication Channels

(I) Internal Communication:

Mail Servers:

Before SEPCO could take the initiative to improve communication with its external stakeholder such as consumers and the community as a whole, it must ensure that it has achieved the optimum level required in the internal communication among staff. To achieve this objective, SEPCO should acquire the basis infrastructure that would help the staff to have affective communication among them. The modes of communication that are needed to be strengthened by SEPCO as an organization are electronic communication via email and, telephonic communication over the cell phones.

In order to provide instant access to the information required for the spontaneous decision making and problem solving, SEPCO employees in the officer cadre need to have in their possession, at least an email address to communicate within the boundaries of SEPCO and a cell phone enabling them to relay their communication outside the premises of their offices. Therefore, a mail server is suggested to be deployed within the organization. Scanners will also be installed to ease the email functionality. This will be done right after the communication protocols have been set, user trainings have been imparted and procedures have been finalized; all of which would happen in the first year of Business Plan implementation. In addition, cell phones will also be provided to the officers serving the dual purpose of not only making phone calls but also checking their emails.

These interventions will ensure that SEPCO establish an effective internal communication setup required to run the organization and its operations, in a more efficient manner.

(II) Public Communication & Outreach Activities:

Public Relations (PR) Departments comprise one PR officer along-with supporting staff who dedicate a good portion of their time to issuing rebuttals to inaccurate media reports. The concept of image building and consumer awareness needs improvement. Therefore, this plan which actually comprises of a complete portfolio in the realm of Public Communication and Outreach, helping put forward an improved brand image of SEPCO, better customer services and better-informed customers through a series of outreach campaigns.

(III) Mass Media Campaigns

The Public Relations and Customer Services Departments of SEPCO will design localized campaigns to target consumers on both energy conservation and the timely payments of bills. These campaigns will help SEPCO in its image promotion as a well-run and progressive power distribution company.
In the long run, these campaigns will result in an improved image of SEPCO as a dynamic and customer-friendly entity through external communications that will help to smoothly implement consumer awareness campaigns and will empower the PR Department to deliver assertive communications and outreach on behalf of SEPCO.

(IV) Public Outreach & Awareness Programs

Consumer outreach activities will help build a relationship between SEPCO and its consumers. Campaigns targeted at schools and universities, and industries, traders and farmers will be planned in close coordination with the relevant departments of SEPCO.
A variety of interventions at schools and colleges will be held including energy conservation seminars, lectures on role as a DISCO, debating, essay writing and painting competitions. These will help in the image promotion of SEPCO among school- / college-going students. A range of consumer awareness material will be disseminated to improve the knowledge of students on energy conservation and efficiency at both homes and schools.
Industries are important consumers of SEPCO therefore targeting industrialists, through seminars at the Chamber of Commerce, will spread energy conservation awareness and the effectiveness of energy audits. Speakers from SEPCO will be arranged to speak with industrialists on selected topics e.g. energy conservation, better relationships between SEPCO and industries and the need for strengthening cooperation to the mutual benefit of both.

Similarly, meetings will be organized with Press Club, to gain its support to spread the message to the masses to adopt energy conservation measures and place conservation material in prominent locations.

(V) Design and printing of Customer Awareness Material

As part of the overall branding campaign, Customer Services Centers will be branded through the strategic placement of standees, banners and other awareness material. Brochures, leaflets and handbooks will be developed for employee safety measures and workplace ethics that will help guide Customer Service Center employees. The proposed action plan includes designing content that educates consumers about role as a DISCO and the different energy conservation measures, they can adopt.

(VI) Student Energy Conservation Programs

Another important intervention is the energy efficiency and anti-theft campaigns consisting of mass media and Informational and Educational Communication (IEC) materials for dissemination to the public as well as internal communications. These are grassroots-level promotions that target awareness at community level or through schoolchildren and college/university students with action-oriented messages, where benefits of proposed actions are quantitative and clear to the audience.

DIIP-22- Communication Improvement Plan:

DIIP-22- COMMUNICATION IMPROVEMENT PLAN							
Sr No.	Description	Define Scope					
		2025-26	2026-27	2027-28	2028-29	2029-30	Total
A	Improving Internal Communication with Employees	L/S As required on Optimal need basis					
B	Improving External Communication with Customers						
C	Communication Material						
D	Feasibility Study for installation of SCADA.	2029-30 (Feasibility Study)					
	Total	1	1	1	1	1	1

5.9.2 Scope & Cost of Commercial Facilitation Plan

Sr. No.	Description	Unit	2025-26	2026-27	2027-28	2028-29	2029-30	Total
1	Model Sub-Division	NO.	-	03	-	-	-	03
		M.RS	-	14	-	-	-	14
2	Establishment of customer care centers	NO.	-	19	-	-	-	19
		M.RS	-	44	-	-	-	44
3	Special window for Industrial consumers to Improve reliability	NO.	01	-	-	-	-	01
		M.RS	Existing Staff will be utilized					

5.10 Other Functional Improvement Plans

5.10.1 GIS Implementation Plan

5.10.2 GIS Plan Scope

SEPCO has completed 382 Nos. GIS Mapping out of 591 of 11 kV Network of SEPCO which will be updated and completed throughout the business plan period. SEPCO is planning GIS enterprise implementation project, to be implemented by 3 party contractors, which will enable reliable management and usage of GIS mapping data after development of GIS mapping mobile app, Mapping of LT network of SEPCO Including consumer mapping will be initiated through own sources and will be completed till 2030.

Physical target Nos. / %								
S.NO	**Description**	**Base year 2023-24**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**
1	**GIS Enterprise solution**	**NIL**	**100%**	**Implementation of GIS Enterprise solution**				
2	**HT Mapping**	**65%**	**40%**	**75%**	**100%**	**100%**	**100%**	**100%**
3	**LT Mapping**	**NIL**	**40%**	**75%**	**100%**	**100%**	**100%**	**100%**
4	**Consumer Mapping**	**NIL**	**NIL**	**NIL**	**To be decided**			

5.10.2.1 GIS Plan COST

Financial Target (Million Rs.)								
S.NO	**Description**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**	**Total**
1	**GIS Enterprise solution**	**-**	**250**	**150**	**0**	**0**	**0**	**400**
2	**HT Mapping**							
3	**LT Mapping**							
4	**Consumer Mapping**							

5.11 Transport Plan /Functional Improvement

For Operational activities single cabin Pick ups has been proposed and In addition to this for operational activities of company crane mounted trucks has been proposed for better site accessibility, easier transportation of material, loading and unloading of material, this will save time and provide safety to workers.

5.11.1 Transport Plan Scope

Physical Target (NoS.)						
Description	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**	**Total**
Crane mounted trucks 08 Tons	-	-	01	-	-	01
Crane mounted trucks 05 Tons	-	02	-	-	-	02
Hyundai /Kia Pickup Manual Transmission	14	12	10	08	06	50
Total	14	12	11	08	06	53

5.11.2 Transport Plan Cost

Table- Cost of Transport Plan					(Million Rs.)	
Description	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**	**Total**
Crane mounted trucks 08 Tons	0	0	12	-	-	12
Crane mounted trucks 05 Tons	-	18	-	-	-	18
Hyundai /Kia Pickup Manual Transmission	63	57	51	43	34	248
Total (M.Rs)	63	75	51	43	34	278

5.13 Health Safety & Environment Plan.

SEPCO is committed towards health, safety and environment policy, committed to provide safe atmosphere for its workers, general public, properties, animals, other livings, provide environment free from hazards.

Capacity buildings of employees through safety seminars, workshops and safety parades are being done to achieve zero accident targets.

SEPCO safety team is fully functional for training of field staff and site visits during works / shutdowns, assures availability of T&P and PPE, during works to avoid any damages / hazards.

SEPCO has provided quality tools, vehicles and equipment, and also conducted different trainings of line staff on the latest tools and equipment that are used worldwide to make line work effective and prevent lineman from fatal and severe non-fatal accidents. A hundred purpose-built vehicles have been provided making the line staff able to carry all necessary tools and equipment that are mandatory to perform their job safely.

In this business plan SEPCO has incorporated such needs in lineman safety with extensive homework and calculations. In this plan, all the needs of Safety Organization restructuring, Trainings and Safety Professional Development Programs for management and line staff, provision of Bucket Mounted Trucks for transport for supply complaints handling, communication, Linemen equipment and PPEs have been catered with to make SEPCO lineman safe, effective and efficient (that includes miscellaneous gang-tools, individual tools, personal protective

equipment are planned to be procured). This plan also includes provision for customized trainings for LM.
This plan under safety when executed well save SEPCO from huge losses due to poor quality of work and rampant accidents of experienced lineman caused in the shape of heavy financial losses and human loss and it will also improve response to complaint time resulted in improved customer services.
Besides purchases of T&P, PPE, vehicle SEPCO is also going to procure fire proof / arc proof uniforms for GSO staff to ensure best measures for safety.

In order to ensure safety of line staff and general public, safety hazards are being identified by field surveys and being removed for tilted poles, broken conductor, crossing over houses, details of removal of hazards is submitted as under.

Sr. No.	Year	Total Hazards removed	Amount in M.Rs
01	2020-21	103	58
02	2021-22	42	19
03	2022-23	53	85
04	2023-24	4	5
	Total	202	167

The outcome of above efforts results into reduction of accidents as under: However SEPCO is committed to reduce these values to zero in future.

Sr. No.	Year	Employee (Nos.)		General Public (Nos.		Total
		Fatal	Non-Fatal	Fatal	Non-Fatal	Accidents
01	2019-20	4	7	9	1	21
02	2020-21	2	10	12	2	26
03	2021-22	2	9	8	-	19
04	2022-23	6	7	3	1	17
05	2023-24	1	10	4	1	16

Linemen Training, Tools and Equipment

SEPCO has provided quality tools, vehicles and equipment, and also conducted different trainings of line staff on the latest tools and equipment that are used worldwide to make line work effective and prevent lineman from fatal and severe non-fatal accidents. A hundred purpose-built vehicles have been provided making the line staff able to carry all necessary tools and equipment that are mandatory to perform their job safely.

SEPCO's senior and middle managers are also trained so that they can realize the importance of lineman safety in quality work production and elimination of these accidents. The point of consensus has developed in the SEPCO due to safety trainings at all levels of management and line staff is "all these accidents are

avoidable and can be eliminated". To reach such point, unwavering commitment is required at every level of DISCO to show zero tolerance attitudes on any accident in future. The management can't justify its position by initiating disciplinary actions against SDOs and Supervisors only, but the management has to have allocated good number of resources in lineman safety.

In this Investment plan SEPCO has incorporated such needs in lineman safety with extensive homework and calculations. In this plan, all the needs of Safety Organization restructuring, Trainings and Safety Professional Development Programs for management and line staff, provision of Bucket Mounted Trucks for transport for supply complaints handling, communication, Linemen equipment and PPEs have been catered with to make SEPCO lineman safe, effective and efficient (that includes miscellaneous gang-tools, individual tools, personal protective equipment are planned to be procured). This plan also includes provision for customized trainings for SEPCO's LM.

This plan under safety when executed well save SEPCO from huge losses due to poor quality of work and rampant accidents of experienced lineman caused in the shape of heavy financial losses and human loss and it will also improve response to complaint time resulted in improved customer services.

Besides purchases of T&P, PPE, vehicle SEPCO is also going to procure fire proof / arc proof uniforms for GSO staff to ensure best measures for safety and replacement of weak earthing on HT / LT / Transformer, removal of hazards has been considered in this Plan.

Physical Target (Nos.)						
Description	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**	**Total**
Bucket Mounted trucks	05	08	07	-	-	20
Fire / Arc Proof uniform for GSO Staff	-	136	-			136
Removal of Hazards	850	960	1000	1150	1300	5903
Earthing of HT/LT Str:& T/F	1000	1000	1000	1000	1000	5000
T&P - PPE	32550	33675	34780	35855	36900	173760

5.14 **Civil Works Plan** (Except STG Works)

5.14.1 **Civil Works Scope**

Physical Scope						
Description	2025-26	2026-27	2027-28	2028-29	2029-30	Total
Construction of office buildings	45	50	55	60	77	287
Renovation of Office Buildings	50	55	60	66	70	300
Renovation of colonies	48	50	55	60	65	278
Emergency works	L/S	L/S	L/S	L/S	L/S	L/S

5.14.2 Civil Works Cost

Financial cost (Million Rs)						
Description	2025-26	2026-27	2027-28	2028-29	2029-30	Total
Construction of office buildings	526	556	748	746	700	3276
Renovation of Office Buildings	290	302	183	186	235	1196
Renovation of Residential colonies	166	170	114	128	182	758
Emergency works	20	20	25	25	25	115
Total Cost	1002	1048	1070	1085	1140	5345
Escalated Cost (M.Rs)	1067	1116	1140	1156	1214	5692

5.14.3 Civil Works Proposed Works

S,#	Name of Works
1	Construction of XEN / RO Office Jacobabad
2	Construction of XEN / RO Office Larkana (Rural)
3	Construction of XEN / RO Office Larkana (City)
4	Construction of SDO Office Jinnah Bagh
5	Construction of SDO Office Empire Road Larkana
6	Construction of SDO Office Khanpur
7	Construction of SDO Office Opr: S/D-I SEPCO Jacobabad
8	Construction of SDO Opr: Office Naudero
9	Construction of SDO Opr: Office at 132 KV G/S Hamayoon
10	Construction of SDO Office SEPCO Lakhi
11	Construction of SDO Opr: Office SEPCO Kamber
12	Construction of SDO Office SEPCO Miro Khan
13	Construction of Security Guard Room at 132 KV G/S Garhi Khero, Warah, Shikarpur, Dokri, Jacobabad, Karampur Garhi Yaseen Hamayoon Pir-jo-Goth, Kotdiji etc.
14	Construction of Masjid's at Various Gird Stations under SEPCO
15	M&R of CHB etc. at 66 KV G/S Radhan, Mirpur Mathelo, Rohri, Khanpur, Larkana New, Dokri, Dadu, Moro, N'Feroze etc. & M&R of residential quarters at various grids of SEPCO
16	M&R and renovation of different offices, quarters, bungalows,@ operation and grid colonies.
17	Construction of new office Buildings as per Budget provision and requirement.

Section –VI: Costs and Financing Plan

6.1 Cost of Optimal / Achievable Case

DIIP-30 Grids: (Optimal / Achievable Case)

DIIP-30 (Optimal / Achievable Case Cost)								Million Rs
S.No	Description	Total Cost	Total Capacity (MVA)	2025-26	2026-27	2027-28	2028-29	2029-30
GRIDS								
1	Grids New	1796	66	898	898	0	0	0
2	Conversion	5219	94	1185	1418	1896	720	0
3	Aug: of T/F	350	67	175	0	75	0	100
4	Extension T/F)	510	158	390	120		0	
5	Extension LB	240	0	240	0	0	0	0
A	**Total Grids**	8115	385	2888	2436	1971	720	100

DIIP-31 New Lines : (Optimal / Achievable Case Cost)

DIIP-31 (Optimal / Achievable Case Cost)							Million Rs	
S.No	Description	Total Cost	-	2025-26	2026-27	2027-28	2028-29	2029-30
New Transmission Lines								
1	132 KV D/C	1103		679.89	423.22	0	0	0
2	132 KV SDT	14387		1313	2423	8689	1742	220
B	Total Lines	15490		1993	2846	8689	1742	220

DIIP-32 (Reconductoring / Rehabilitation Optimal Case)

DIIP-32 (Optimal Case Cost Reconductoring / Rehabilitation)							Million Rs	
S.No	Description	Total Cost	-	2025-26	2026-27	2027-28	2028-29	2029-30
Transmission Lines Rehabilitation								
C	Rehabilitation of T/L	0	-	0	0	0	0	0

DIIP-34 (Capacitor Cost Optimal Case)

DIIP-34 (Optimal t Case Capacitor Cost)							Million Rs	
S.No	Description	Total Cost	-	2025-26	2026-27	2027-28	2028-29	2029-30
Capacitors								
1	Capacitors 132 kv	180	0	120	60	0	0	0
2	Capacitors 11kv	90	0	30	30	20	10	0
D	**Total Capacitors**	270	0	150	90	20	10	0
Total STG (A+B=C+D)		**23875**	**385**	**5031**	**5373**	**10680**	**2472**	**320**

DIIP23 -Optimal Case Summary of Annual Capital Expenditure Costs

DIIP23 -Optimal Case Summary of Annual Capital Expenditure Costs																			
Sr No.	Items	2025-26			2026-27			2027-28			2028-29			2029-30			Total		
		Total	LCC	FCC	Total	LCC	FCC	Total	LCC	FCC	Total	LCC	FCC	Total	LCC	FCC	Total	LCC	FCC
A	STG	5031	4318	713	5373	4660	713	10680	8784	1896	2472	2472	0	320	320	0	23875	20553	3322
B	Distribution	2029	1015	1014	2855	1812	1044	3157	2644	512	2140	2140	0	1566	1566	0	11748	9177	2570
C	Misc @ 1%	20	10	10	29	18	10	32	26	5	21	21	0	16	16	0	117	92	26
D	Authority Supervision Charges @ 0.5%	10	5	5	14	9	5	16	13	3	11	11	0	8	8	0	59	46	13
E	Contingency @ 05%	101	51	51	143	91	52	158	132	26	107	107	0	78	78	0	587	459	129
F	Dismantling Charges @ 5%Equipment Cost against Rehabilitation	11	11	0	14	14	0	18	18	0	22	22	0	14	14	0	79	79	0
G	IDC @ 11.21% PER Anum on Local and 12% on FCC	235	114	122	328	203	125	358	296	61	240	240	0	176	176	0	1337	1029	308
H	Escalation Separately for LCC and FCC	132	66	66	186	118	68	205	172	33	139	139	0	102	102	0	764	597	167
	Sub Total	2539	1271	1268	3569	2265	1304	3943	3302	640	2680	2680	0	1959	1959	0	14691	11478	3213

6.4 Summary of Annual Recurring Costs:

DIIP-24 - Summary of Annual Recurring Costs

Sr. No.	Description	Unit	Year					Total
			2025-26	2026-27	2027-28	2028-29	2029-30	
O&M Cost for DISCOs Expansion & Rehabilitation – Optimally Implementable Case								
1	Existing O&M Cost	M.Rs	22407	26151	29758	34125	39246	151,688
2	O&M Cost of New Schemes	M.Rs	0	388	775	1296	1142	1,142

6.5 Details of Costing

6.5.1 STG-Expansion and Rehabilitation (Optimal Achievable)

DIIP-30 - STG Grid Stations (Optimal Achievable):

Rs. In Million

S.No	Description	Total Cost	Total Capacity (MVA)	2025-26	2026-27	2027-28	2028-29	2029-30
Grids								
1	132 KV Grids New	1796	66	898	898	0	0	0
2	Conversion 66 to 132 KV	5219	94	1185	1418	1896	720	0
3	Augmentation of T/F	350	67	175	0	75	0	100
4	Extension (Transformer)	510	158	390	120		0	
5	Extension (Line Bay)	240	0	240	0	0	0	0
A	**Total Grids**	8115	385	2888	2436	1971	720	100

DIIP-31 - STG New Transmission Lines (Optimal Achievable):

DIIP-31 - STG Expansion and Rehabilitation (Optimal Achievable): New Transmission Lines								
Rs. In Million								
Sr.No	Description	Total Cost	Total Capacity (MVA)	2025-26	2026-27	2027-28	2028-29	2029-30
New Transmission Lines								
1	132 KV D/C	1103		680	423	0	0	0
2	132 KV SDT	14387		1313	2423	8689	1742	220
B	Total Lines	15490		1993	2846	8689	1742	220

DIIP-32 - STG T/L Rehabilitation (Optimal Achievable):

DIIP-32 - STG Expansion and Rehabilitation (Optimal Achievable): T/L Rehabilitation								
								Rs. In Million
Sr.No	Description	Total Cost	Total Capacity (MVA)	2025-26	2026-27	2027-28	2028-29	2029-30
Transmission Lines Rehabilitation								
1	132 KV SDT	0		0	0	0	0	0
C	Rehabilitation of T/L	0		0	0	0	0	0

DIIP-33 (STG): Reconductoring / Rerouting (Optimal Achievable)

DIIP-33 - STG Expansion and Rehabilitation (Optimal Achievable): Reconductoring / rerouting

Rs. In Million

Sr.No	Description	Total Cost	Total Capacity (MVA)	2025-26	2026-27	2027-28	2028-29	2029-30
Transmission Lines Rehabilitation								
1	132 KV SDT	0		0	0	0	0	0
C	Reconductoring of T/L	0		0	0	0	0	0

DIIP-34 - STG Capacitors (Optimal Achievable):

DIIP-34 - STG Expansion and Rehabilitation (Optimal Achievable): Capacitors

Rs. In Million

Sr.No	Description	Total Cost	Total Capacity MVAR	2025-26	2026-27	2027-28	2028-29	2029-30
1	Capacitors 132 kv	180	0	120	60	0	0	0
2	Capacitors 11kv	90	0	30	30	20	10	0
A	**Total**	270	0	150	90	20	10	0

6.6 Distribution System-Expansion and Rehabilitation

6.6.1 Distribution System-Expansion and Rehabilitation (Optimal Achievable)

DIIP-35 – Cost of ELR Works for 11 Kv & Below Expansion (Optimal Achievable)

S/No.	Description	2025-26	2026-27	2027-28	2028-29	2029-30	2025-30
1	New Transformer						
I	Sub Station (50KVA)	15	19	22	25	22	102
Ii	Sub Station (100KVA)	22	20	22	19	18	101
iii	Sub Station (200KVA)	34	31	36	34	39	173
2	Replacement of T/Fs	0	0	0	0	0	0
3	HT /LT ,ABC & Capacitors						
i	HT Line	368	406	364	330	295	1764
ii	HT Reconductoring.	0	0	0	108	92	200
iii	LT NEW LINE	14	19	23	29	31	117
iv	Installation of ABC on Bared LT Conductor	331	341	351	364	375	1762
v	11 KV 450 KVAR Fixed Capacitors	25	31	27	23	19	123
4	Energy Meters, PVC, CTs, ATBs	0	0	0	0	0	0
5	11KV Out Going Panels	64	80	69	58	48	319
6	HT Cable 500 MCM S/C	10	8	9	10	11	48
7	HT Cable 1000 MCM S/C	5	4	5	5	5	24
8	Termination kit (Indoor)	1	1	1	1	0	3
9	Termination kit (outdoor)	1	1	1	1	1	4
10	T&P	26	26	26	26	26	129
A	Escalated Cost (M.RS)	888	962	930	1005	955	4740.05

DIIP-35 – Cost of DOP Works for 11 Kv & Below Expansion (Optimal Case)

DOP Expansion & Rehabilitation Cost (M.Rs)						
DIIP-35 – Cost of Works for 11 Kv & Below Expansion DOP (Optimal /Best) M.Rs						
Description	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**	**Total**
HT New Line	321	428	535	535	321	2140
LT New Line	78	105	131	131	78	523
Dist: Transformer	343	458	572	572	343	2288
Replacement of Burnt T/F (Cost included in Dis: T/F Cost)	252.8	339.7	425.4	425.4	252.8	1696.2
Service Connection	262	350	437	437	262	1749
Total Cost (M.Rs)	1005	1340	1675	1675	1005	6700

Misc. works costs (M.Rs)								
Sr No.	Description	Cost	Quantities					
			2025-26	2026-27	2027-28	2028-29	2029-30	Total
1	Vehicles							
	a. Crane Mounted Trucks- 08 Tons	M.Rs	0	0	0	0	12	12
	b. Crane Mounted Trucks- 05 Tons	M.Rs	18	0	0	0	0	18
	C. Bucket Mounted Trucks	M.Rs	79	126	110	0	0	315
	Sub Total	M.Rs	97	126	110	0	12	345
i	Tools & Plants (T&P) and PPE							
	a. Instruments & Test equipment	M.Rs	0	0	0	0	0	0
	b. Removal of Hazards	M.Rs	29	36	45	54	66	230
	installation of Earthing on HT/LT/TF	M.Rs	7	7	7	7	7	35
	d. Line man tools other than PPE	M.Rs	245	255	266	281	295	1342
	e. Arc Proof uniform for GSO	M.Rs	0	36	0	0	0	36
	Sub Total	M.Rs	667	746	753	378	395	2914
3	List of New offices & Buildings							
	a. New Grid stations	M.Rs	Cost of new grid has been included in grid cost					
	b. Other offices and Misc. M&R Works mentioned in Civil Plan	M.Rs	1002	1048	1070	1085	1140	5345
	Sub Total	M.Rs	1002	1048	1070	1085	1140	5345

6.7 Capital Expenditure and Additional Operating Costs for Other Functional Improvement Plans:

Sr No.	Items	2025-26			2026-27			2027-28		2028-29		2029-30		Total		
		Total	LCC	FCC	Total	LCC	FCC	Total	LCC	Total	LCC	Total	LCC	Total	LCC	FCC
A	Commercial Improvement Plan	2887	718	2169	1618	665	953	690	690	700	700	755	755	6650	3528	3122
B	Financial Improvement Plan	380	380	0	267	267	0	117	117	116	116	116	116	996	996	0
C	HR Improvement Plan	76	76	0	82	82	0	80	80	79	79	79	79	396	396	0
D	Communication Improvement Plan	5	5	0	5	5	0	5	5	5	5	65	65	85	85	0
E	Civil Works Plan	1002	1002	0	1048	1048	0	1070	1070	1085	1085	1140	1140	5345	5345	0
F	HSE & Function Improvement Plan	441	441	0	529	529	0	479	479	385	385	402	402	2236	2236	0
G	Sub Total (A+B+C+D+E+F))	4791	2622	2169	3549	2596	953	2441	2441	2370	2370	2558	2558	15708	12586	3122
H	Contingencies @ 05%	240	131	108	177	130	48	122	122	118	118	128	128	785	629	156
I	Total	5030	2753	2277	3726	2726	1001	2563	2563	2488	2488	2685	2685	16493	13215	3278
J	Escalation Separately for LCC and FCC	327	179	148	242	177	65	167	167	162	162	175	175	1072	859	213
K	Total	**5357**	**2932**	**2425**	**3968**	**2903**	**1066**	**2729**	**2729**	**2650**	**2650**	**2860**	**2860**	**17565**	**14074**	**3491**

6.7.B Summary of Annual Recurring Costs:

DIIP 38 - Summary of Annual Recurring Costs (Other Functions)

Sr. No.	Description	Unit	Cost in Million Rs					Total
			2025-26	2026-27	2027-28	2028-29	2029-30	
OPEX for other Improvement Plans								
1	Commercial Improvement Plan	M.Rs	371	208	89	90	97	855
2	Financial Improvement Plan	M.Rs	49	34	15	15	15	128
3	HR Improvement Plan	M.Rs	10	11	10	10	10	51
4	Communication Improvement Plan	M.Rs	1	1	1	1	8	11
5	Civil Works Plan	M.Rs	129	135	138	140	147	687
6	HSE & Function Improvement Plan	M.Rs	57	68	62	49	52	288
	Total	M.Rs	616	456	314	305	329	2,020

6.7 Details of costs:

DIIP-39- Commercial Improvement Plans Capital Expenditure Costs

DIIP-39- Commercial Improvement Plans Capital Expenditure Costs																		
Sr No.	Items	2025-26			2026-27			2027-28			2028-29			2029-30			Total		
		Total	**LCC**	**FCC**	**Total**	**LCC**	**FCC**	**Total**	**LCC**	**FCC**	**Total**	**LCC**	**FCC**	**Total**	**LCC**	**FCC**	**Total**	**LCC**	**FCC**
A	AMR Meters	2729	560	2169	1418	465	953	540	540	0	540	540	0	585	585	0	5813	2691	3122
B	Electronic /Static meters	133	133	0	141	141	0	150	150	0	160	160	0	170	170	0	754	754	0
C	Consumer Census	25	25	0	0	0	0	0	0	0	0	0	0	0	0	0	25	25	0
D	Model Sub-Division	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	14	14	0
E	Establishment of customer care centers	0	0	0	44	44	0	0	0	0	0	0	0	0	0	0	44	44	0
F	S. Total	2887	718	2169	1618	665	953	690	690	0	700	700	0	755	755	0	6650	3528	3122
G	Contingency @ 5%	144	35.9	108	80.9	33.2	47.7	34.5	34.5	0	35	35	0	37.8	37.8	0	332	176	156
H	Total	3031	753	2277	1698	698	1001	725	725	0	735	735	0	793	793	0	6982	3704	3278
I	Escalated	**3228**	**802**	**2425**	**1809**	**743**	**1066**	**772**	**772**	**0**	**783**	**783**	**0**	**845**	**845**	**0**	**7436**	**3945**	**3491**

DIIP-40- Financial, HSE, Functional& Civil Works Improvement Plan Capital Expenditure Costs

DIIP-40- Financial, Improvement Plan Capital Expenditure Costs																			
Sr No.	Items	2025-26			2026-27			2027-28			2028-29			2029-30			Total		
		Total	LCC	FCC	Total	LCC	FCC	Total	LCC	FCC	Total	LCC	FCC	Total	LCC	FCC	Total	LCC	FCC
A	ERP O&M Cost (M.Rs)	40	40	0	30	30	0	30	30	0	30	30	0	30	30	0	160	160	0
B	Revamping the Internal Audit	5	5	0	2	2	0	2	2	0	1	1	0	1	1	0	11	11	0
C	IBS / Cyber Security/AMI	30	30	0	30	30	0	30	30	0	30	30	0	30	30	0	150	150	0
D	Software Licenses, System Study , new software for Demand forecast, PSS-E	30	30	0	30	30	0	30	30	0	30	30	0	30	30	0	150	150	0
E	Computers, Laptops, Printers,, Mobile phones of MMR	25	25	0	25	25	0	25	25	0	25	25	0	25	25	0	125	125	0
F	GIS Grid Station	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
G	GIS Enterprise solution	250	250	0	150	150	0	0	0	0	0	0	0	0	0	0	400	400	0
H	**Sub Total**	**380**	**380**	**0**	**267**	**267**	**0**	**117**	**117**	**0**	**116**	**116**	**0**	**116**	**116**	**0**	**996**	**996**	**0**
	Contingency @ 5%	**19**	**19**	**0**	**13.35**	**13.35**	**0**	**5.85**	**5.85**	**0**	**5.8**	**5.8**	**0**	**5.8**	**5.8**	**0**	**49.8**	**49.8**	**0**
	Total	**399**	**399**	**0**	**280.35**	**280.35**	**0**	**122.85**	**122.85**	**0**	**121.8**	**121.8**	**0**	**121.8**	**121.8**	**0**	**1045.8**	**1045.8**	**0**
	Escalacted	425	425	0	299	299	0	131	131	0	130	130	0	130	130	0	1114	1114	0

DIIP-40- HSE & Functional Improvement Plan Capital Expenditure Costs																		
Sr No.	Items	2025-26			2026-27			2027-28			2028-29			2029-30			Total		
		Total	LCC	FCC	Total	LCC	FCC	Total	LCC	FCC	Total	LCC	FCC	Total	LCC	FCC	Total	LCC	FCC
A	Bucket Mounted trucks	79	79	0	126	126	0	110	110	0	0	0	0	0	0	0	315	315	0
B	Fire / Arc Proof uniform for GSO Staff	0	0	0	36	36	0	0	0	0	0	0	0	0	0	0	36	36	0
C	Removal of Hazards	29	29	0	36	36	0	45	45	0	54	54	0	66	66	0	230	230	0
D	Earthing of HT/LT St:& T/F	7	7	0	7	7	0	7	7	0	7	7	0	7	7	0	35	35	0
E	T&P - PPE	245	245	0	255	255	0	266	266	0	281	281	0	295	295	0	1342	1342	0
F	Crane Mounted Trucks-08 Tons	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	12	12	0
G	Crane Mounted Trucks-05 Tons	18	18	0	0	0	0	0	0	0	0	0	0	0	0	0	18	18	0
H	Operational Vehicles	63	63	0	57	57	0	51	51	0	43	43	0	34	34	0	248	248	0
I	**S. Total**	**441**	**441**	**0**	**529**	**529**	**0**	**479**	**479**	**0**	**385**	**385**	**0**	**402**	**402**	**0**	**2236**	**2236**	**0**
	Contingency @ 5%	**22**	**22**	**0**	**26**	**26**	**0**	**24**	**24**	**0**	**19**	**19**	**0**	**20**	**20**	**0**	**112**	**112**	**0**
	Total	**463**	**463**	**0**	**556**	**556**	**0**	**502**	**502**	**0**	**404**	**404**	**0**	**422**	**422**	**0**	**2348**	**2348**	**0**
	Escalated	493	493	0	592	592	0	535	535	0	430	430	0	450	450	0	2500	2500	0

DIIP-40- Civil Works Improvement Plan Capital Expenditure Costs

Sr No.	Items	2025-26			2026-27			2027-28			2028-29			2029-30			Total		
		Total	LCC	FCC	Total	LCC	FCC	Total	LCC	FCC	Total	LCC	FCC	Total	LCC	FCC	Total	LCC	FCC
A	Civil works Plan	1002	1002	0	1048	1048	0	1070	1070	0	1085	1085	0	1140	1140	0	5345	5345	0
	S. Total	1002	1002	0	1048	1048	0	1070	1070	0	1085	1085	0	1140	1140	0	5345	5345	0
	Contingency @ 5%	50.1	50.1	0	52.4	52.4	0	53.5	53.5	0	54.25	54.25	0	57	57	0	267.25	267.25	0
	Total	1052.1	1052.1	0	1100.4	1100.4	0	1123.5	1123.5	0	1139.25	1139.25	0	1197	1197	0	5612.25	5612.25	0
	Escalated	1120	1120	0	1172	1172	0	1197	1197	0	1213	1213	0	1275	1275	0	5977	5977	0

DIIP-41- Human Resource Plans Capital Expenditure

DIIP-41- Human Resource Plans Capital Expenditure Costs																
Sr No.	Description	2025-26			2026-27			2027-28			2028-29			2029-30			Total
		Total	LCC	FEC	Total	LCC	FEC	Total	LCC	FEC	Total	LCC	FEC	Total	LCC	FEC	Total
A	Revamping of Training Centers	8	8	0	5	5	0	2	2	0	1	1	0	1	1	0	17
B	Management Trainings of Officers	20	20	0	20	20	0	20	20	0	20	20	0	20	20	0	100
C	Technical Trainings of Officers	10	10	0	10	10	0	10	10	0	10	10	0	10	10	0	50
D	Trainings of officials	35	35	0	44	44	0	45	45	0	45	45	0	45	45	0	214
E	Training of Employees through external training institution	3	3	0	3	3	0	3	3	0	3	3	0	3	3	0	15
F	S. Total (M.Rs)	76	76	0	82	82	0	80	80	0	79	79	0	79	79	0	396
	Contingency @ 5%	3.8	3.8	0	4.1	4.1	0	4	4	0	3.95	3.95	0	3.95	3.95	0	19.8
	Total	79.8	79.8	0	86.1	86.1	0	84	84	0	83	83	0	83	83	0	416
	Escalated	85	85	0	92	92	0	89	89	0	88	88	0	88	88	0	443

DIIP-42- Communications Improvement Plans Capital Expenditure Costs

DIIP-42- Communications Improvement Plans Capital Expenditure Costs																
Sr No.	Items	2025-26			2026-27			2027-28			2028-29			2029-30			Total
		Total	LCC	FCC	Total	LCC	FCC	Total	LCC	FCC	Total	LCC	FCC	Total	LCC	FCC	Total
A	Improving Internal Communication with Employees	2	2	0	2	2	0	2	2	0	2	2	0	2	2	0	10
B	Improving External Communication with Customers	2	2	0	2	2	0	2	2	0	2	2	0	2	2	0	10
C	Communication Material	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	5
D	SCADA (Feasibility Study)	0	0	0	0	0	0	0	0	0	0	0	0	60	60	0	60
E	S. Total	5	5	0	5	5	0	5	5	0	5	5	0	65	65	0	85
	Contingency @ 5%	0.25	0.25	0	0.25	0.25	0	0.25	0.25	0	0.25	0.25	0	3.25	3.25	0	4.25
	Total	5	5	0	5	5	0	5	5	0	5	5	0	68	68	0	89
	Escalated	6	6	0	6	6	0	6	6	0	6	6	0	73	73	0	95

6.8 Summary Costs for the Integrated Investment Plan

DIIP-44 - Summary Costs for the Integrated Investment Plan for Optimal achievable case

Sr No.	Items	2025-26			2026-27			2027-28			2028-29		2029-30		Total		
		Total	LCC	FCC	Total	LCC	FCC	Total	LCC	FCC	Total	LCC	Total	LCC	Total	LCC	FCC
A	STG	5031	4318	712.8	5373	4660	713	10680	8784	1896	2472	2472	320	320	23875	20553	3322
B	Distribution	2029	1015	1014	2855	1812	1044	3157	2644	512	2140	2140	1566	1566	11748	9177	2570
	Misc. @ 1%	20	10	10	29	18	10	32	26	5	21	21	16	16	117	92	26
	Authority Supervision Charges @ 0.5%	10	5	5	14	9	5	16	13	3	11	11	8	8	59	46	13
	Contingency @ 05%	101	51	51	143	91	52	158	132	26	107	107	78	78	587	459	129
	Dismantling Charges @ 5%Equipment Cost against Rehabilitation	11	11	0	14	14	0	18	18	0	22	22	14	14	79	79	0
	IDC @ 11.21% PER Anum on Local and 12% on FCC	235	114	122	328	203	125	358	296	61	240	240	176	176	1337	1029	308
	Escalation Separately for LCC and FCC	132	66	66	186	118	68	205	172	33	139	139	102	102	764	597	167
	Sub Total	2539	1271	1268	3569	2265	1304	3943	3302	640	2680	2680	1959	1959	14691	11478	3213
C	Other Functional Plans	5357	2932	2425	3968	2903	1066	2729	2729	0	2650	2650	2860	2860	17565	14074	3491
	TOTAL (A+B+C)	12927	8521	4406	12910	9827	3083	17352	14816	2537	7802	7802	5139	5139	56131	46105	10026

6.9 Summary of Annual Recurring Costs

DIIP-45- Summary Costs for the Investment Plan:

DIIP45- Summary Costs for the Investment Plan: Summary of Annual Recurring Costs								
Sr. No.	Description	Unit	Year					Total
			2025-26	2026-27	2027-28	2028-29	2029-30	
O&M Cost for Disco Expansion & Rehabilitation – Optimally Implementable Case								
1	Existing O&M Cost	M.Rs	22,407	26,151	29,758	34,125	39,246	151,688
2	O&M Cost of New Schemes, including function plans	M.Rs	-	388	775	1,296	1,142	1,142

6.10 Financing Plan

Sources of financing

DIIP46 - Financing Plan: Sources of Financing

Schemes	Funding	2025-26	2026-27	2027-28	2028-29	2029-30	Total
DOP	Public Financed	644	858	1073	1073	644	4292
STG	Own Sources	4318	4660	8784	2472	320	20553
Distribution		1271	2265	3302	2680	1959	11478
Other Functions		2932	2903	2729	2650	2860	14074
Total LCC		8521	9827	14816	7802	5139	46105
STG	ADB/ Loan/ Funding	713	713	1896	0	0	3322
Distribution		1268	1304	640	0	0	3213
Other Functions		2425	1066	0	0	0	3491
Total FEC		4406	3083	2537	0	0	10026
Total Investment		12927	12910	17352	7802	5139	56131
Less Public Financed / consumers		**644**	**858**	**1073**	**1073**	**644**	**4292**
Net Invest required		**12283**	**12052**	**16279**	**6729**	**4495**	**51839**

Section – VII- Benefits and Financial Analysis

7.1 Expansion and Rehabilitation of Secondary Transmission and Distribution System:

DIIP 47 - Tangible Benefits

Energy Forecast -GWh

Description	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Domestic	1555	1822	1949	2086	2232	2388	2555	2734	2925	3130
Commercial	244	286	306	327	350	374	400	428	458	491
Industrial	424	496	531	568	608	651	696	745	797	853
Agricultural	88	104	111	119	127	136	145	155	166	178
Other	566	663	710	759	812	869	930	995	1065	1140
TOTAL	**2876.7**	**3370.38**	**3606.30**	**3858.7**	**4128.86**	**4418**	**4727**	**5058**	**5412**	**5791**
Growth %	**12.2**	**17.2**	**7.0**	**7.0**	**7.0**	**7.0**	**7.0**	**7.0**	**7.0**	**7.0**

Consumer Growth:

										Consumer Growth (NO.)
Description	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Domestic	667584	673423	680721	688019	692398	700000	710000	721000	733000	745000
Commercial	129528	130688	132139	133590	134460	136000	138000	140000	142200	144500
Industrial	13910	14033	14187	14341	14433	14550	14700	14875	15100	15350
Agricultural	10290	10413	10567	10721	10813	10920	11150	11350	11550	11800
Other	13643	13650	13659	13668	13673	13680	13685	13700	13820	13850
TOTAL	**834959**	**842212**	**851278**	**860344**	**865784**	**875150**	**887535**	**900925**	**915670**	**930500**
Growth %	**0.7%**	**0.9%**	**1.1%**	**1.1%**	**0.6%**	**1.1%**	**1.4%**	**1.5%**	**1.6%**	**1.6%**

Additional Sales -GWh						
Description	**2026**	**2027**	**2028**	**2029**	**2030**	Total
Domestic	**12.0**	**1.6**	**4.3**	**2.6**	**1.8**	**22.4**
Commercial	**16.0**	**2.0**	**5.2**	**3.0**	**2.0**	**28.2**
Industrial	**21.1**	**2.7**	**6.8**	**3.9**	**2.6**	**37.2**
Agricultural	**22.2**	**2.8**	**7.2**	**4.2**	**2.7**	**39.1**
Other	**14.0**	**1.8**	**4.5**	**2.6**	**1.7**	**24.7**
TOTAL	**85.4**	**10.9**	**28.1**	**16.3**	**10.8**	**151.6**

Energy Saved Through Technical & Commercial Improvement Plans						
	2026	**2027**	**2028**	**2029**	**2030**	Total
AMR	5.77	4.06	2.84	2.84	3.08	18.59
APMS	17.95	35.89	35.89	0.00	0.00	89.73
DOP	22.37	28.24	37.15	39.11	24.70	151.56
Commercial (Yearly)	**46.09**	**68.19**	**75.88**	**41.95**	**27.78**	**259.88**
Commercial : Cumulative	**46.09**	**114.28**	**190.16**	**232.11**	**259.89**	**259.89**
STG	**27.9**	**1.7**	**3.6**	**3.8**	**0.5**	**37.5**
ELR	**26**	**36**	**30**	**38**	**32**	**162**
Technical (Yearly)	**54**	**37**	**34**	**42**	**33**	**200**
Technical -Cumulative	**54**	**92**	**125**	**167**	**200**	**200**

7.1.1 Anticipated Energy Saved through Loss Reduction

Anticipated Energy Saved through Loss Reduction to Achieve Targeted losses- GWh						
Description	**2026**	**2027**	**2028**	**2029**	**2030**	**Total**
Technical	54	92	125	167	200	200
Commercial- Through Infrastructure	**46.09**	**114.28**	**190.16**	**232.11**	**259.89**	**259.89**
Through increasing vigilance, Administrative actions, chokidara etc.	**199.81**	**627.72**	**478.85**	**450.49**	**449.21**	449.21
TOTAL	**299.9**	**834**	**794.1**	**849.6**	**909.1**	**909.1**

7.1.2 Non-Tangible Benefits (Transmission and Distribution Investment Plan)

- Improvement of quality of electric supply to end consumers.
- Removal of system constraints.
- Stability & Reliability of system will be enhanced.
- Reduction in loading of transmission lines & power transformers.
- Reduction / Savings as well as capping the losses.
- To avoid unnecessary O&M cost on transmission and distribution network.
- Increase in the available system capacity to meet future load growth at/around proposed projects.
- Preventing of electrical equipment's, from damaging / burning due to overloading of system.
- Removal of hazards and ensuring safety of personal, public and property.

7.2.A Additional Energy Available for Sales (anticipated) (Transmission and Distribution Investment Plan)

MVA to be Added and Additional Capacity margin available for Sale through Distribution Transformers					
Financial Year	**STG**	**DOP**	**ELR**	**Energy Available for Sale (M.Kwh) Through D.T/F**	**Cumulative Energy Available for Sale (M.Kwh)**
2025-26	185	28.46	5.2	100	100
2026-27	87	19.15	5.05	72	172
2027-28	86	26.43	5.7	96	268
2028-29	0	18.97	5.4	73	341
2029-30	27	12.77	5.6	55	395
Total	385	106	26.95	395	395

- 80% Loading, 85%P.F and 50% Load Factor

7.3 Tangible Benefits (Transmission and Distribution Investment Plan)

Projected T&D & Technical Losses.

Year	Units Purchased	Units Sold	Units Lost	T & D Loss	Breakup of T&D Losses (%)		Breakup of Technical Losses (%)		
	(M Kwh)			%	Technical Losses	Admin: Losses	132 KV	11 KV	L.T
2023-24	4023	2626	1398	34.74	19.33	15.4	1.29	10.68	3.34
2024-25	3871	2565	1306	33.74	18.33	15.4	1.29	10.68	3.34
2025-26	3948	2877	1072	27.14	14.46	12.7	1.15	10.10	3.21
2026-27	4027	3370	657	16.31	14.35	2.0	1.05	10.05	3.25
2027-28	4309	3606	703	16.31	14.35	2.0	1.05	10.05	3.25
2028-29	4611	3859	752	16.31	14.35	2.0	1.05	10.05	3.25
2029-30	4934	4129	805	16.31	14.35	2.0	1.05	10.05	3.25

Loss Reduction up to 18.43%.

- Improvement of collection efficiency up to 100%.
- Achieve zero accidents.
- 25372/50000 AMI deployment and GIS Mapping of entire network.

7.4 Financial Analysis for the entire Transmission and Distribution Investments:

Profit & Loss Accounts

Year	Income	O&M Expenses	Project Cost	Depreciation	Total Cost	Profit before tax	Tax	EAT
2025-26	4,484	388	12,927	452	13,767	(9,283)	807	(10,090)
2026-27	9,192	387	12,910	452	13,749	(4,558)	1,655	(6,212)
2027-28	14,085	521	17,352	607	18,480	(4,395)	2,535	(6,930)
2028-29	17,832	234	7,802	273	8,309	9,522	3,210	6,313
2029-30	20,537	154	5,139	180	5,473	15,064	3,697	11,367
	66,130	**1,684**	**56,131**	**1,965**	**59,779**	**6,350**	**11,903**	**(5,553)**

Cash Flow Statement

Year	Investment	Cash inflow	Annual O&M	Taxes	Total Outflow	Net Flow
2025-26	56130.88	4,484	388	807	1,195	3,289
2026-27		9,192	387	1,655	2,042	7,150
2027-28		14,085	154	3,697	3,851	10,234
2028-29		17,832	154	3,697	3,851	13,981
2029-30		20,537	154	3,697	3,851	16,686
2030-31		20,537	154	3,697	3,851	16,686

Pay Back Period			
Average Rate of Return(FIIR):	39.57%	Investment	56,130.88
		Net Cash Flow	
Amortization Factor LCC	0.022465272	68,026.54	5.7129

7.5. Sensitivity Analysis of Distribution Plan:

Discount Rate	Discounted Benefits	Discounted Costs	Net Present Value	Benefit / Cost ratio
Project Financial Analysis				
20%	91236	47621	1.08	1.95
25%	71940	44263	1.27	1.63
Financial Internal Rate of Return (FIRR)=39.57%				
Project Sensitivity Analysis on 10% increase in cost				
20%	82112	47621	1.08	1.72
25%	64746	44263	1.27	1.46
Financial Internal Rate of Return (FIRR)=27.24%				
Sensitivity Analysis on 10% Decrease in Benefits				
20%	100359	52383	1.08	1.92
25%	79134	48689	1.27	1.63
Financial Internal Rate of Return (FIRR)=29.7%				
Sensitivity Analysis with 10% Increase in Cost & 10% Decrease in Benefits				
20%	82112	52383	1.08	1.57
25%	64746	48689	1.27	1.33
Financial Internal Rate of Return (FIRR)=25.24%				
Project Financial Analysis on 25% increase in cost				
20%	91236	59526	1.08	1.53
25%	71940	55329	1.27	1.30
Financial Internal Rate of Return (FIRR)-24.8%				
Project Economic Analysis				
20%	90845	47616	1.08	1.91
25%	71660	44262	1.27	1.62
Economical Internal Rate of Return (EIRR)= 29.6%				

7.6 Other Functional Improvement Plans

7.6.1 Tangible benefits from Other Functional Improvement Plans

Tangible benefits from other Functional Improvement Plans						
						M.Kwh
S.NO	Description	2025-26	2026-27	2027-28	2028-29	2029-30
Theft control						
1	AMR	5.8	4.1	2.8	2.8	3.1
A	Cumulative anticipated saving	5.8	9.8	12.7	15.5	18.6

7.7.2 Non Tangible benefits from Other Functional Improvement Plans

- APMS (Assets Performance Monitoring System) has been planned on recording the data of energy received and sold by each Distribution transformer, connection / disconnection for proper vigilance to curb theft and, increase in revenue.
- Reduction in billing complaints: by MMR & installation of AMR, Meter, timely and correct billing efforts will reduce billing complaints at remarkable level. The anticipated billing complaints will reduce, from 20000+ to Zero
- Removal of Safety Hazards:
- Safety of Employees and General Public.
- Proper earthing of HT/LT/D.T/F will eliminate fatal accidents and equipment safety.
- Bucket mounted vehicle provide safety and reduction in fault clearance time.
- Operational vehicles and civil works improve quality.

7.8.3 Financial Analysis Other Functional Improvement Plans

Financial analysis of other functional improvement carried out; but no remarkable tangible benefits achieved, plan did not sustain sensitivity analysis, however Financial and economic analysis performed resulting payback period found more than 25 years.

Functional improvement plan is for following non-tangible benefits which are far more than cost incurred.

- Improvement of Customer services, Model Sub Divisions, facilitation plan to industrial consumers.
- Improvement in Safety of Public and Employees by providing proper T&P, PPE, and Removal of safety Hazards, Provision of ARC proof dresses to GSO operators, installation of missing/damaged earth of HT/LT/Distribution Transformers.
- Reducing of billing complaints by installation of AMR, eliminate wrong reading.
- For improvement in quality and reliability of supply, decrease in average nos. of interruptions; (SAIFI) and decrease in fault restoration time (SAIDI) by infrastructure improvement and.
- Transport plan for provision of operational vehicles, to field officers.
- Civil works to upgrade and maintain civil infrastructure.
- Human resources improvement plan.

Section - VIII Financial Projection:

8.0 Fundamental Assumptions:

a. Financial Projections are developed in line with the Demand Forecast.

b) Financial Projections for separate businesses (i.e., Supply Business and Distribution Business) are based on allocation of costs to each case as per allocation factors concurred by the Authority in the matter of determination of Consumer End Tariff of SEPCO Electric Power Company Limited vide No.NEPRA/R/ADG(Trf)yTRF-567/SEPC0-2021/8695-8697/ dated 02.06.2022.

c) Financial Projections for each separate business are provided as Income Statements up-to Earnings before Interest and Taxes (EBIT). However, for aggregated SEPCO projections for all standard financial statements, vis-à-vis income statement, statement of financial position (balance sheet) and statement of cash flows are provided.

8.1 Assumptions & Input to the Financial Projection

❖ Revenue Calculations:

Annual Revenue Requirements for each separate business (Supplier & Distribution) have been adopted as Revenue for each year of Business Plan horizon.

❖ Cost of Electricity:

Each element of Power Purchase Price (Energy Charges, Capacity Charges, transmission use of system charges, MO fee) is taken as per Annual Tariff Adjustment Petition for FY 2024-25 and 3% annual rate increase assumed for each next year of Plan.

❖ O&M COST:

O&M Expenses took @3% and the expenses have been incorporated in financial analysis, costs and benefits sheets.

❖ Depreciations:

Depreciation @ 3.5% as per applicable depreciation policy for each category of assets.

❖ Assets Capitalization:

50% of Opening Capital Work in Progress (CWIP), i.e., projects under construction Buildings & Distribution / Transmission Assets 60% of CAPEX for the year All other CAPEX 100% of the CAPEX for the year.

❖ CRITERIA FOR BIFURCATION OF REVENUE REQUIREMENT INTO SUPPLY AND DISTRIBUTION BUSINESS :

According to the Determination of the Authority in the matter of Distribution Tariff of Sukkur Electric Power Company vide No. NEPRA/R/DG(Trf)/TRF566 & 567/SEPCO-2021/18225-31 dated 14-07-2023 and even in the determination of MYT for FY 2020-21 to 2024-25, the criteria accepted/ adopted by The Authority in attributing the costs to Power Supply Business and Distribution Business is as under:

Bifurcation of RR into Supply and Distribution Businesses

Sr#	Cost Component (Description)	Supply	Distribution
1	Power Purchase Price	**100%**	**0%**
2	Salaries, wages and other benefits	**10%**	**90%**
3	Repair & Maintenance	**0.03%**	**99.99%**
4	Travelling	**11%**	**89%**
5	Transportation Expense	**03%**	**97%**
6	Misc. Expenses	**03%**	**97%**
7	Total O&M	**09%**	**91%**
8	Provision for Bad Debts	**100%**	**0%**
9	Depreciation	**0.35%**	**99.65%**
10	RORB	**0.18%**	**99.82%**
11	Less Other Income	**08%**	**92%**
12	**Distribution Margin**	**16%**	**84%**

8.1 Financial Performance & Position:

The Overall Financial Performance (Profit / Loss) of SEPCO is as under:

PROFIT AND LOSS ACCOUNT								(Rs. in Mln)
Description	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**
Revenue								
Electricity Turnover	78,148	100,240	130,254	136,087	146,077	157,467	169,523	184,901
Cost of Electricity	88,356	106,185	102,168	104,211	106,295	113,736	121,698	130,216
Gross Profit	(10,209)	(5,946)	28,087	31,876	39,781	43,731	47,825	54,684
Amortization of Deferred Credit	396	324	330	615	641	746	797	802
Net Profit	(9,813)	(5,622)	28,417	32,491	40,422	44,477	48,622	55,486
Operating Cost								
O&M Cost	12,302	17,587	19,752	22,407	26,151	29,758	34,125	39,246
Depreciation	1,864	1,704	1,705	1,790	1,933	2,030	2,193	2,368
Provision for doubtful debts	1,956	1,884	5,432	5,619	6,061	6,568	7,094	7,796
Total Expenses	16,122	21,175	26,889	29,817	34,146	38,357	43,412	49,410
Operating Profit	(25,935)	(26,796)	1,528	2,674	6,277	6,120	5,210	6,076
Other Income	1,991	1,952	1,884	2,570	2,698	2,833	2,975	2,975
EBIT	(23,944)	(24,844)	3,412	5,244	8,975	8,953	8,184	9,051
Financial Charges	15,564	1,640	1,640	1,580	2,402	2,500	2,255	2,355
EBT	(39,508)	(26,484)	1,772	3,664	6,573	6,453	5,929	6,696
Taxation	18	148	196	202	218	236	255	255
Profit/ (Loss) After Taxation	(39,526)	(26,336)	1,967	3,866	6,791	6,689	6,185	6,951

Despite sustained operational performance, the Equity of SEPCO has practically gone negative mainly due to inadequate tariffs and delayed implementation of adjustments thereof.

DISTRIBUTION BUSINESS								
STATEMENT OF COMPREHENSIVE INCOME								
Particulars	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**
Units Sales (kwh)	3,868	4,023	3,871	3,948	4,027	4,309	4,611	4,934
Unit Rate Rs./kwh	2,538	2,626	2,565	2,877	3,370	3,606	3,859	4,129
Peak Demand (MW)								
Sales	**78,148**	**100,240**	**130,254**	**136,087**	**146,077**	**157,467**	**169,523**	**184,901**
Cost of electricity								
Gross profit / (Loss)	**78,148**	**100,240**	**130,254**	**136,087**	**146,077**	**157,467**	**169,523**	**184,901**
Amortization of deferred credit	396	324	330	615	641	746	797	802
Operating costs Dist. Business								
O & M Expenses	11,195	16,004	17,974	20,391	23,798	27,080	31,054	35,714
Depreciation	1,857	1,698	1,699	1,784	1,927	2,023	2,185	2,360
Provision for doubtful debts								
Total Expenses	**13,052**	**17,702**	**19,673**	**22,175**	**25,724**	**29,103**	**33,239**	**38,074**
Operating Profit/(loss)	65,095	82,538	110,581	113,912	120,352	128,364	136,284	146,827
Other income	1,832	1,796	1,733	2,364	2,482	2,606	2,737	2,737
EBIT	**67,323**	**84,658**	**112,645**	**116,891**	**123,475**	**131,716**	**139,817**	**150,366**

SUPPLY BUSINESS								
STATEMENT OF COMPREHENSIVE INCOME								
Particulars	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**
Units Sales (kwh)	3,868	4,023	3,871	3,948	4,027	4,309	4,611	4,934
Sales Revenue	78,148	100,240	130,254	136,087	146,077	157,467	169,523	184,901
Sales per unit (kwh)	20.21	24.92	33.65	34.47	36.27	36.54	36.77	37.48
Cost of electricity								
Energy Charges	43,472	41,296	39,734	40,528	41,339	44,232	47,329	50,642
Capacity Charges	39,297	59,082	56,847	57,983	59,143	63,283	67,713	72,453
Transmission (TUoSC)	5,552	5,771	5,552	5,663	5,777	6,181	6,614	7,076
Supplementary Charges								
Market operations fee	36	37	35	36	37	40	42	45
Distribution (D.UoSC)								
Total Cost	**88,356**	**106,185**	**102,168**	**104,211**	**106,295**	**113,736**	**121,698**	**130,216**
Gross Profit/(Loss)	-10,209	-5,946	28,087	31,876	39,781	43,731	47,825	54,684
Amortization of deferred credit	396	324	330	615	641	746	797	802
Operating costs								
O & M Expenses	1,008	1,440	1,618	1,835	2,142	2,437	2,795	3,214
Depreciation	3	3	3	3	3	4	4	4
Provision for doubtful debts	1,956	1,884	5,432	5,619	6,061	6,568	7,094	7,796
Total Expenses	2,967	3,327	7,053	7,458	8,206	9,009	9,893	11,014
Operating Profit/(loss)	65,095	82,538	110,581	113,912	120,352	128,364	136,284	146,827
Other income	159	156	151	206	216	227	238	238
EBIT	67,323	84,658	112,645	116,891	123,475	131,716	139,817	150,366

AGGREGATE BUSINESS											
STATEMENT OF COMPREHENSIVE INCOME											
Particulars	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**
Units Sales (kwh)	2,710	2,776	2,890	3,868	4,023	3,871	3,948	4,027	4,309	4,611	4,934
Unit Rate Rs./kwh	20.33	20.65	25.51	20.21	24.92	33.65	34.47	36.27	36.54	36.77	37.48
Total sales SEPCO	**55,106**	**57,314**	**73,718**	**78,148**	**100,240**	**130,254**	**136,087**	**146,077**	**157,467**	**169,523**	**184,901**
Cost of electricity											
Energy Charges	29,700	25,390	49,028	43,472	41,296	39,734	40,528	41,339	44,232	47,329	50,642
Capacity Charges	25,871	26,977	28,775	39,297	59,082	56,847	57,983	59,143	63,283	67,713	72,453
Transmission (TUoSC)	2,208	2,044	3,292	5,552	5,771	5,552	5,663	5,777	6,181	6,614	7,076
Supplementary Charges											
Market operations fee				36	37	35	36	37	40	42	45
Total Cost	**57,779**	**54,412**	**81,095**	**88,356**	**106,185**	**102,168**	**104,211**	**106,295**	**113,736**	**121,698**	**130,216**
Gross profit	**-2,673**	**2,903**	**-7,377**	**-10,209**	**-5,946**	**28,087**	**31,876**	**39,781**	**43,731**	**47,825**	**54,684**
Amortization of deferred credit	323	352	398	-23,944	324	330	615	641	746	797	802

AGGREGATE BUSINESS											
STATEMENT OF COMPREHENSIVE INCOME											
Particulars	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**
Operating costs											
O & M Expenses	7,933	10,868	9,943	12,302	17,587	19,752	22,407	26,151	29,758	34,125	39,246
Depreciation	1,232	1,366	1,467	1,857	1,704	1,705	1,790	1,933	2,030	2,193	2,368
Total Operating cost SEPCO	9,165	12,233	11,410	14,159	19,291	21,457	24,198	28,085	31,788	36,318	41,614
Operating Cost/unit sold	3.38	4.41	3.95	3.66	4.79	5.54	6.13	6.97	7.38	7.88	8.43
Operating Profit/(loss)	(33,999)	(31,995)	(46,787)	65,095	(25,935)	(26,796)	1,528	2,674	6,277	6,120	5,210
Other income	1,722	1,511	2,154	1,991	1,952	1,884	2,570	2,698	2,833	2,975	2,975
EBIT	(31,954)	(30,132)	(44,235)	(39,508)	(26,484)	1,772	3,664	6,573	6,453	5,929	6,696
Loss/unit sold	(11.79)	(10.86)	(15.31)	(10.22)	(6.58)	0.46	0.93	1.63	1.50	1.29	1.36
Finance costs	8,707	10,834	16,374	15,564	1,640	1,640	1,580	2,402	2,500	2,255	2,355
Profit/ (loss) before taxation	(40,661)	(40,966)	(60,609)	(39,508)	(26,484)	1,772	3,664	6,573	6,453	5,929	6,696
Taxation	103	127	103	18	148	196	202	218	236	255	255
Profit / (loss) for the year	(40,765)	(41,093)	(60,712)	(39,526)	(26,336)	1,967	3,866	6,791	6,689	6,185	6,951

Integrated O&M Plan.							
							Million Rs
Description	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**	**Total**
Salaries , Other Allowances	7,393.47	9,241.83	11,552.29	13,285.13	15,277.90	17,569.59	74,320.21
Post-Retirement Benefits	6,836.55	7,520.20	8,272.22	9,099.44	10,009.39	11,010.33	52,748.13
P.M Assistance Package	1,738.00	1,000.00	600.00	250.00	225.00	225.00	4,038.00
TA/DA	487.03	560.08	644.10	708.50	743.93	781.13	3,924.77
Other Charges	644.33	902.06	1,262.88	1,768.03	2,210.04	2,762.55	9,549.87
Maintenance	2,213.24	2,655.89	3,187.07	3,824.48	4,589.38	5,507.25	21,977.32
Transportation	439.47	527.37	632.84	822.69	1,069.50	1,390.35	4,882.23
Total O&M Cost	**19,752.08**	**22,407.43**	**26,151.39**	**29,758.29**	**34,125.14**	**39,246.19**	**171,440.53**

RETURN ON RATE BASE

Projection of Return on Rate Base

Description	Unit	2025	2026	2027	2028	2029	3030
Gross Fixed Assets in Operation-B/F	M.Rs	**47,492**	**49,125**	**51,004**	**53,164**	**55,324**	**57,485**
Addition in Fixed Assets	M.Rs	1,634	1,879	2,160	2,160	2,160	2,160
Gross Fixed Assets in Operation-C/B	M.Rs	**49,125**	**51,004**	**53,164**	**55,324**	**57,485**	**59,645**
Less: Accumulated Depreciation	M.Rs	23,422	25,212	27,145	29,175	31,368	33,736
Net Fixed Assets in Operation	M.Rs	**25,704**	**25,792**	**26,019**	**26,149**	**26,117**	**25,909**
Add: Capital Work In Progress-C/B	M.Rs	9,136	10,049	11,054	11,054	11,054	11,054
Investment in Fixed Assets	M.Rs	**34,839**	**35,841**	**37,073**	**37,203**	**37,171**	**36,964**
Less: Deferred Credits	M.Rs	6,999	7,349	7,717	7,717	7,717	7,717
Regulatory Assets Base	M.Rs	**27,840**	**28,492**	**29,356**	**29,487**	**29,454**	**29,247**
Average Regulatory Assets Base	M.Rs	**27,418**	**28,166**	**28,924**	**29,421**	**29,470**	**29,351**
Rate of Return	%age	**23.71%**	**23.71%**	**23.71%**	**23.71%**	**23.71%**	**23.71%**
Return on Rate basis	M.Rs	**6,501**	**6,678**	**6,858**	**6,976**	**6,987**	**6,959**

STATEMENTS OF FINANCIAL POSITION							
Projection of Financial Position of SEPCO (Million Rs)							
	2024	2025	2026	2027	2028	2029	2030
ASSETS							
Non-Current Assets:-							
Property and equipment	36,485	40,134	48,160	57,792	69,351	83,221	99,865
Intangible assets	118	118	118	118	118	118	118
Total Non-Current Assets	36,604	40,252	48,279	57,911	69,469	83,340	99,984
Current Assets:-							
Stores and spares	5,527	5,527	6,080	6,688	7,356	8,092	8,901
Trade debts	86,291	86,291	90,605	92,417	94,266	96,151	98,074
Due from associated undertakings	73,012	53,012	58,012	58,012	58,012	58,012	58,012
Advances and other receivables	5,744	5,859	5,976	6,095	6,217	6,341	6,468
Taxation - net	886	904	922	941	960	979	998
Bank balances	2,250	2,295	2,410	2,531	2,657	2,790	2,929
Total Current Assets	173,710	153,888	164,005	166,683	169,468	172,365	175,383
Total Assets	210,314	194,140	212,284	224,594	238,937	255,705	275,367
Equity And Liabilities							
Share Capital and Reserves							
Share capital	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Accumulated losses	(436,703)	(434,735)	(430,869)	(424,079)	(417,389)	(411,204)	(404,253)
	(436,703)	(434,735)	(430,869)	(424,079)	(417,389)	(411,204)	(404,253)
Deposit for Issuance of Shares	118,160	118,160	118,160	118,160	118,160	118,160	118,160
Non-Current Liabilities:-							
Deferred credit	7,421	7,569	7,720	7,875	8,032	8,193	8,357
Consumers' security deposits	1,527	1,558	1,589	1,621	1,653	1,686	1,720
Receipt against deposit works and connections	5,217	5,478	5,752	6,039	6,341	6,658	6,991
Employees' retirement benefits	71,507	78,343	85,863	94,136	103,235	113,244	124,255
Total Non-Current Liabilities	85,672	92,948	100,925	109,670	119,262	129,782	141,323
Current Liabilities:-							
Creditors, accrued and other liabilities	12,157	12,400	12,648	12,901	13,159	13,422	13,691
Due to associated undertakings	431,028	405,367	411,421	407,941	405,745	405,545	406,446
Total Current Liabilities	443,185	417,768	424,069	420,843	418,905	418,968	420,137
Total Liabilities	528,856	510,715	524,994	530,513	538,166	548,750	561,460
Total Equity and Liabilities	210,314	194,140	212,284	224,594	238,937	255,705	275,367

STATEMENTS OF CASH FLOWS

Projection of statement of cash flows of SEPCO							
Description		**Projected FY 2024-25 as on 30th June**	**Projected FY 2025-26 as on 30th June**	**Projected FY 2026-27 as on 30th June**	**Projected FY 2027-28 as on 30th June**	**Projected FY 2028-29 as on 30th June**	**Projected FY 2029-30 as on 30th June**
Units Purchased	[GWh]	3,871	3,948	4,027	4,309	4,611	4,934
T&D Losses	%	33.74%	27.14%	16.31%	16.31%	16.31%	16.31%
Units Sold to Customers	[GWh]	2,626	2,565	2,877	3,370	3,606	3,859
Average Tariff Required	[Rs/unit]	49.61	53.06	50.78	46.72	47.01	47.92
Average Tariff Existing	[Rs/unit]	49.61	53.06	50.78	46.72	47.01	47.92
Tariff Difference	*[Rs/unit]*	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*
Revenue from Sales	[Rs. in M]	108,645	112,385	121,221	131,368	141,889	155,915
Collection from Required	[%]	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Inflows from Operations							
Collection from Sales	[Rs. in M]	108,645	112,385	121,221	131,368	141,889	155,915
Total Inflows from Operations		***108,645***	***112,385***	***121,221***	***131,368***	***141,889***	***155,915***
Outflow from Operations							
Payment for electricity (to CPPA)	[Rs. in M]	102,168	104,211	106,295	113,736	121,698	130,216
Distribution Service Cost (=DMC)	[Rs. in M]	26,074	28,306	32,245	35,931	40,331	45,599
Total Outflow from Operations	[Rs. in M]	***128,242***	***132,517***	***138,540***	***149,667***	***162,028***	***175,815***
Surplus/Deficit from Operations	[Rs. in M]	**(19,597)**	**(20,133)**	**(17,319)**	**(18,299)**	**(20,139)**	**(19,900)**
Inflows from Other Sources		3.16088E-06	-1.56502E-06				

Projection of statement of cash flows of SEPCO							
Description		**Projected FY 2024-25 as on 30th June**	**Projected FY 2025-26 as on 30th June**	**Projected FY 2026-27 as on 30th June**	**Projected FY 2027-28 as on 30th June**	**Projected FY 2028-29 as on 30th June**	**Projected FY 2029-30 as on 30th June**
Capital Contributions	[Rs. in M]	3,085	2,681	2,815	2,268	3,104	3,259
Consumer Security Deposits	[Rs. in M]	1,558	1,589	1,621	1,653	1,686	1,720
Other Incomes	[Rs. in M]	2,290	2,228	3,200	3,359	3,616	3,810
GOP Subsidy (Actual and Estimated)	[Rs. in M]	21,609	23,702	24,856	26,099	27,634	28,985
Benefits from Investment	[Rs. in M]	4,135	4,484	4,708	4,893	3,747	2,705
Total Inflows from Other Sources	[Rs. in M]	***32,677***	***34,685***	***37,200***	***38,273***	***39,786***	***40,479***
Outflow Others							
Financial Charges	[Rs. in M]	1,640	1,580	2,402	2,500	2,255	2,355
Repayment of Long Term Loans	[Rs. in M]			4,454		9,463	12,953
Investment Program	[Rs. in M]	11,668	12,927	12,910	17,352	7,802	5,139
Working Capital/other Changes	[Rs. in M]						
Total Outflow Others	[Rs. in M]	***13,308***	***14,507***	***19,766***	***19,852***	***19,520***	***20,447***
Surplus/Deficit Others	[Rs. in M]	**19,369**	**20,178**	**17,434**	**18,420**	**20,266**	**20,032**
Total Inflows (Operations + Others)	[Rs. in M]	**141,322**	**147,069**	**158,421**	**169,641**	**181,675**	**196,395**
Total Outflows (Operations + Others)	[Rs. in M]	**141,550**	**147,024**	**158,306**	**169,520**	**181,548**	**196,262**
Opening Balance	[Rs. in M]	2,478	2,250	2,295	2,410	2,531	2,657
Surplus/Deficit for Fiscal Year	[Rs. in M]	(228)	45	115	121	127	133
Closing Balance	[Rs. in M]	**2,250**	**2,295**	**2,410**	**2,531**	**2,657**	**2,790**

Section - IX Investment Plan Implementation

9.1 Business Planning Organization for Preparation of Investment Plans

Distribution Integrated Investment Plan of SEPCO for the Tariff control period (2025-26 to 2029-30) compiled and write up by prepared by the team of MIRAD SEPCO as per new job description after creation of MIRAD.

As for as heads of Investment, all stakeholders provided their input in respect of Scope and Cost and benefits, MIRAD reviewed and rectified the errors if any, Head wise stake holders are as under.

- **Infrastructure Development Plan**:
  - STG — MIRAD SEPCO
  - ELR — Planning SEPCO
  - DOP — Planning SEPCO
  - APMS — Planning SEPCO
- **Integrated Commercial Improvement Plan:**
  - AMR — RM (M&T) & P&D
  - Customer Facilitation Plan — Chairman BOD Vision
  - IT/MIS — MIS
- **Health Safety & Environment (HSE) Plan:**
  - Removal of Hazards — Safety Directorate
  - T&P-PPE — Safety Directorate
  - Earthing of HT/LT — Safety Directorate
  - Arc Proof Dresses — SE GSO
  - Bucket Mounted Vehicles — Safety Directorate
- **Functional Improvement Plan:**
  - Crane Mounted Trucks — PMU
  - Vehicles — MMM
- **Civil Works Plan:**
  - Civil works new and O&M — XEN Civil
- **Integrated Human Resources Improvement Plan:**
  - Capacity Building , — Manager HR
  - Other improvement, Manpower

9.2 Planning & Design:

First system studies on PPS-E software with existing network and on the basis of results reinforcement is being proposed keeping in view over loading, voltage and reactive power issues, responsible entity is MIRAD. The designing of the STG project is being carried out after approval of drawings from Power System Planning.

Distribution network planning and designing as per Standard design instructions (SDI) is being done by Planning Directorate SEPCO duly vetted by 3rd part consultant.

Planning for other functions such as commercial improvement, functional improvement, safety, civil works and HR Improvement is done by respective directorates on need basis.

9.3 Program Management:

STG program is managed by the team of Project Director GSC headed by Chief Engineer Development, DOP, ELR, APMS program is managed by the team of Project Director Construction headed by Chief Engineer Technical Office, Other functions managed by Chief Operating Office, chief commercial officer, and respective directorates as per job responsibility, designs and SOP's are being followed, Inventory Manager / Procurement Manager process their procurement Plans well in time.

9.4 Projects Implementation:

Projects are implemented by respective sections as under after performing all codal formalities.

- **STG Projects: -**

  After approval of BOD/CEO Implementation by Chief Engineer Development-Manager Procurement-PD GSC-XEN Grid and Transmission Line and their teams as per hierarchy.

- **ELR/DOP/APMS Projects:**
  After approval of BOD/CEO Implementation by Chief Technical Officer - Manager Material Management -PD Construction -XEN Construction and their team as per hierarchy.

- **Other Functional Improvement Projects:**
  After approval of BOD/CEO Implementation by Chief Technical Officer, Chief Commercial Officer, Chief Operating Officer and their Managers / SE'S./ Regional Manager M&T/ Safety Directorate and team members as per hierarchy.

9.5 Summary of Manpower Requirements to Implement these Plans:

Manpower required and required for implementation of Investment Plan.

All available resources will be utilized to implement investment Plan, shortage of manpower will be filled through HR Improvement Plan to optimally run the existing operations, implement projects,

Most of the Plan will be executed through contractors, supervised by SEPCO by its available resources or hire of consultancy services for proper implementation. Most of the staffing arrangements will fulfill the needs of operating and maintenance purpose after implementation / completion of Plan.

Section – X Implementation, Monitoring Plan and Reporting

10.1 Implementation Schedule (2025-26 to 2029-30)

Action/Month	Activity for Each financial year											
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
	1	2	3	4	5	6	7	8	9	10	11	12
Design, Drawing and preparation of Bidding Documents												
Invitation of Bids, Evaluation and Award of Contract												
Civil Works												
Supply of Equipment												
Installation and Erection												
Testing & Commissioning												

1	2	3	4	5
Preparation of Tender Document,	Approval of tender document,	Floating & opening of tender document,	Award of Contract,	Delivery Period

- First Phase of procurement schedule (Starting from July 2025) = 40% of the total cost of the tender.
- Second Phase of procurement schedule (Starting from December 2025) = 30% of the total cost of the tender.
- Third Phase of procurement schedule (Starting from June 2026) = 30% of the total cost of the tender.

DIIP-48- Monitoring of Outcomes, Physical and Financial Progress

DIIP-48- Monitoring of Outcomes, Physical and Financial Progress																	
Sr No.	Project	Output	Outcome		Physical Completion Targets (NOs.)						Financial Progress Targets (M.Rs)					
		Total	**Base Line Indicator**	**Target after completion of project**	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**	**Total**	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2029-30**	**Total**
1																
2																
3																
4																
5																
6																
.																

DIIP49 - Linkage of outcome with Performance Standards

DIIP49 - Linkage of outcome with Performance Standards						
Description	Base Line	2025-26	2026-27	2027-28	2028-29	2029-30
SAIFI	81	73	69	66	63	59
SAIDI	1379	1244	1182	1123	1067	1013
Voltage (P.U)=01 to 07% increase	0.9	0.94-0.98	0.92-1.0	0.93-1.0	0.98-1.01	0.97-1.01
Supply Restoration Hrs.	01 to 08	1 to 06	01 to 05	01 to 04	01 to 03	01 to 02
Fatal Accidents	5	ZERO	ZERO	ZERO	ZERO	ZERO
Non-Fatal Accidents	11	ZERO	ZERO	ZERO	ZERO	ZERO
NoS. of meters read manually	809587	768964	740347	720347	700347	678688
New connection Installation Duration	41	38	36	34	32	30
Reduction in billing related complaints	20000	10000	5000	2500	0	37500
Transmission Losses (%)	2.1	1.29	1.29	1.15	1.05	1.05
Distribution Losses (%)	34.74	27.14	16.31	16.31	16.31	16.31
Technical Losses (%)	19.33	14.46	14.35	14.35	14.35	14.35
Service to supply related complaints (Hrs.)	2	1:45	1:30	1:15	1:00	0:30
NoS. of electromechanical meters	837	0	0	0	0	0
Meters replacement	-	10000	10000	10000	10000	10000
% Amount in dead defaulters	6	5.5	5	4.5	4	3.5
Increase in MVA Capacity of P.T/F	185	87	86	0	27	385
Increase in MVA Capacity Of Dist .T/F	34	24	32	24	18	133
Time taken to close financial books	06 Months	06 Months	06 Months	06 Months	06 Months	06 Months
Status of back office system automation	Office Automation Functional through ERP, However GIS Enterprise solution, and installation of AMR in process					
Staff trained	250	350	440	450	450	450
Officers trained Technical	9	12	12	12	12	12
Officers trained in Management courses	12	12	12	12	12	12
Training of employees through other training institutes	0	5	5	5	5	5

Section - XI Environmental and Social Assessment and Mitigation Plans

There are environmental and social impacts of implementing the projects. A detailed environmental and social assessment is required to be carried out as per Sindh Environmental Protection Act-2014 and its Regulations 2021 to successfully complete the projects.

Following are some of the Environmental, Social Impacts and Mitigation Measures, whereas details of impacts and mitigation measures can be ascertained after environmental and social assessment (s).

Environmental impacts	Mitigating measures
Noise	1. Project proponent to ensure compliance of National Environmental Quality Standards (NEQS) i.e., less than 85 dB (A) Noise for 08 hours of working 2. Provision of silencer or muffler for construction work equipment which generates excessive noise. 3. Adopt acoustic methods/ mitigation plan. 4. Transformers should not be overloaded and power factor should be maintained. 5. Hammer type percussive piling to be conducted in day light hours. 6. Use of well-maintained trucks/ machinery with proper alignment/ lubrication to be ensured.
Waste Water/ Drainage	1. Proper installation of temporary drainage and erosion control before works (like septic tank and soak pits).S No direct waste water to be discharged into water bodies and ensure compliance of National Environmental Quality Standards (NEQS) 2. Cover the construction material/ chemicals to reduce material loss/ spillage into water bodies. 3. Storage of lubricants, fuels and chemicals in self-contained dedicated enclosures to avoid spillage/ leakage into water bodies.
Air Pollution	1. Spraying of bare areas with water/ sprinkling. 2. Stockpiled soil and sand shall be slightly wetted before loading, particularly in windy conditions. 3. Well maintained trucks/ machinery with proper alignment/ lubrication. 4. Vehicle transporting soil, sand and construction material shall be covered. 5. Transport through densely populated areas should be avoided. 6. At completion, all debris and waste shall be removed and not burned. Landscaping, trees plantation and road verges to be re-installed upon completion.
Waste Disposal	1. Develop waste management plan to identify sufficient locations for storage and reuse of transformers and recycling of breaker oils and disposal of transformer oil residually contaminated

	soils, scrap metal; “Cradle to Grave” phenomenon may be adopted.
	2. Designate disposal sites in the contract and disposal rates accordingly. 3. Regular monitoring of transformer seal and transformer oil, gravel base should be provided in Switchyard and transformer may be repaired in situ in or sent to workshop. 4. Proper operation and maintenance of transformer (O&M).
Safety Control Measures	1. Provide induction safety training/ capacity building of all staff (GSC/GSO) including contractor labor on health and safety matters, adequate warning signs, PTW (Permit to Work System) for HT Lines 11kV and above especially use of personal protective equipment (PPEs) like hard hat, hard toe shoes, protective rubber/ ladder gloves, safety belt and safety ladder and ear plug/muff to be ensured. 2. There is always potential for spread of vector borne and communicable diseases like AIDS, Hepatitis, Tuberculosis, Small Pox and Influenza from labor camps to local community shall be avoided, hence medical screening/ vaccination to be ensured by the contractor prior to project commencement. 3. Prevent any illegal encroachments/ entries of irrelevant personnel especially children, beggar etc. 4. Transportation Routes used in the vicinity of given project sites like schools/ hospitals/college to be avoided. 5. Local community grievances on construction nuisance/ agriculture land damages, access to agriculture land, hospitals/schools close to ROW, air/ noise pollution and high-speed transportation activities must be considered and responded promptly.
Fire Hazard	1. Continuous operation of transformers over long period of time to be avoided in-order to avoid melting of seals. Proper operation & maintenance of transformer (O&M) to avoid oil spillage/ leakage. Transformer should not be overloaded and power factor should be maintained. 2. Short circuiting of system. 3. Each sub-project site is provided with firefighting equipment including CO_2, foam type and sand containers as well as land line/ power line carrier telephone to call the nearby fire brigade/ Rescue 1122.
Public Complaints	1. Public complaints regarding delays in civil works, ROW issues, late compensation on account of Kharaba of seasonal crops and tree cutting etc. Grievance Redressal committee should be constituted to solve these issues on projects sites.

Glossary

Acronym	Full Form
AMI	Advance Metering Infrastructure
AMR	Automatic Meter Reading
AIDS	Acquire Immune Deficiency Syndrome
APMS	Asset Performance Management System
BoD	Board of Director
BTS	Base Transceiver Station
CAPM	Capital Asset Pricing Model
CDP	Common Delivery Point
COSS	Cost of Service Study
CPPA (G)	Central Power Purchasing Agency Guarantee Limited
CTBCM	Competitive Trading Bilateral Contract Market
CWIP	Closing Work in Progress
DIIP	Distribution Companies Integrated Investment Plan
DISCO	Distribution Company
DM	Distribution Margin
DOP	Distribution of Power
ELR	Energy Loss Reduction
ERP	Enterprise resource planning
FCA	Fuel Charges Adjustment
FY	Financial Year
GIS	Geographical Information System
GIS	Gas Insulated Switchgear (written with Grid Station)
GoP	Government of Pakistan
GoS	Government of Sindh
GSC	Grid System Construction
GSO	Grid System Operation
GWh	Giga Watt Hours
HHU	Hand Held Unit
HT/LT	High Tension/Low Tension
HSD	High Speed Diesel
IGTDP	Integrated Generation Transmission and Distribution Plan
SEPCO	Sukkur Electric Power Company Limited
KIBOR	Karachi Inter Bank Offer Rates
KSE	Karachi Stock Exchange
kV	kilo Volt
kW	kilo Watt
kWh	kilo Watt hour
LPC	Late Payment Charges
LM	Line Man

Acronym	Full Form
MDI	Maximum Demand Indicator
MoWP	Ministry of Water and Power
M&T	Metering & Testing
MVA	Mega Volt Amp
MIRAD	Market Implementation and Regulatory Affairs Department
MW	Mega Watt
MWh	Mega Watt hour
NEPRA	National Electric Power Regulatory Authority
NOC	Network Operation Centre
NTDC	National Transmission & Dispatch Company
O&M	Operation and Maintenance
OGRA	Oil and Gas Regulatory Authority
PEPCO	Pakistan Electric Power Company
PDEIP	Power Distribution Enhancement Investment Program
P.Tr	Power Transformer
PAP	Power Acquisition Programme
PPA	Power Purchase Agreement
PPAA	Power Procurement Agency Agreement
PPE	Personal Protective Equipment
PPP	Power Purchase Price
PMS	Power Market Survey
PMU	Project Management Unit
R&M	Repair and Maintenance
RE	Rural Electrification
RLNG	Re-gasified Liquefied Natural Gas
RoE	Return on Equity
RORB	Return on Rate Base
SBP	State Bank of Pakistan
STG	Secondary Transmission Grid
SYT	Single Year Tariff
T&D	Transmission and Distribution
TOU	Time of Use
T&P	Tools & Plants
TOR	Term of Reference
TPM	Transfer Price Mechanism
TRW	Transformer Reclamation Workshop
UOSC	Use of System Charges
WACC	Weighted average cost of capital
WAPDA	Water and Power Development Authority
WB	World Bank
X-WDISCOs	Ex-WAPDA Distribution Companies

Annexures