
**BEFORE
MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION
SHILLONG**

**PETITION
FOR
Approval of Business Plan
Of
Distribution Business
For Fifth Control Period – FY 2027-28 to FY 2031-32**

FILED BY



**MEGHALAYA POWER DISTRIBUTION CORPORATION LTD.
Lum Jingshai, Short Round Road, Shillong-793001**

BEFORE THE HON'BLE MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION

FILE/ PETITION NO....

IN THE MATTER OF

APPROVAL OF BUSINESS PLAN FOR FIFTH CONTROL PERIOD FY 2027-28 TO FY 2031-32 AS PER
THE PROVISIONS OF REGULATION 2.1 AND REGULATION 2.5 OF MEGHALAYA STATE
ELECTRICITY REGULATORY COMMISSION (MULTI YEAR TARIFF) REGULATIONS, 2026

AND IN THE MATTER OF

MEGHALAYA POWER DISTRIBUTION CORPORATION LIMITED, LUMJINGSHAI, SHILLONG-
793001- MEGHALAYA.

..... PETITIONER

IT IS RESPECTFULLY SUBMITTED BY THE PETITIONER THAT:

1. In exercising the powers conferred to it under Section 131 and 133 of the Electricity Act 2003, the State Government of Meghalaya notified "The Meghalaya Power Sector Reforms Transfer Scheme 2010", notified on 31st March 2010. The Scheme paved path for the restructuring and unbundling of the erstwhile Meghalaya State Electricity Board (MeSEB). As per the provisions of the aforesaid transfer scheme MeSEB was un-bundled into four entities which are:
 - a) Meghalaya Energy Corporation Limited (MeECL) which is the holding company;
 - b) Meghalaya Power Distribution Corporation Limited (MePDCL) – Distribution Utility;
 - c) Meghalaya Power Generation Corporation Limited (MePGCL)- Generation Utility;
 - d) Meghalaya Power Transmission Corporation Limited (MePTCL)– Transmission Utility.
2. Though the transfer scheme was notified on 31st March 2010, the holding company MeECL continued to carry out the functions of distribution, generation and transmission utilities till 31st March 2012. After notification of amendment to the Power Sector Reforms Transfer Scheme by the State Government on 1st April 2012, the un-bundling of MeECL into MePDCL, MEPGCL and MePTCL came into effect.
3. The Government of Meghalaya notified the vesting order of the Assets and Liabilities as on 1st April 2010, in the books of MeECL. Subsequently, the State Government notified the 4th

amendment to the Notified Transfer Scheme on 29th April 2015, wherein the opening balances of assets and liabilities of all the four entities namely, MePGCL, MePDCL, MePTCL and MeECL as on 1st April 2012 were ascertained.

4. The instant Petition is being filed by MePDCL in compliance with the Regulation 2.1 and 2.5 of the Meghalaya State Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2026
5. The Board of Directors of MePDCL have accorded the approval for filing the instant Petition and authorized the undersigned to file the Petition. The copy of the Board's resolution dated 31/08/2026 is annexed to this Petition as **Annexure A**.
6. The copy of excel models prepared for projections of various components of the Business Plan are annexed to this Petition as **Annexure B**.
7. The Petitioner, therefore humbly prays the Hon'ble Commission to:
 - a) To condone the delay of 15 days in filing the Petition for Approval of Business Plan.
 - b) To approve the projected number of consumers and connected load for the period FY 2027-28 to FY 2031-32
 - c) To approve projected sales to various consumer categories for the period FY 2027-28 to FY 2031-32.
 - d) To approve the Power Procurement Plan for the period FY 2027-28 to FY 2031-32
 - e) To approve the Capital Investment Plan for the Period FY 2027-28 to FY 2031-32
 - f) Condone any inadvertent error in the Petition and allow the correction of the same during the course of proceeding of the Petition.
 - g) To allow modification / addition in the Petition during the course of the proceedings of the Petition.
 - h) Pass any order that the Hon'ble Commission deems fit to do so.

Smt. Parnavi Sen Laskar
Executive Engineer (Regulatory Affairs)
For and on behalf of
Meghalaya Power Distribution Corporation Limited.

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BACKGROUND

1.1 Description of Parties

The Power Supply Industry in the state of Meghalaya has been under the governance of erstwhile Meghalaya State Electricity board (MeSEB) since 21st January 1975. The State Government on 31st March 2010 notified “The Meghalaya Power Sector Reforms Transfer Scheme 2010” paving path for the un-bundling of the MeSEB into

- Meghalaya Electricity Corporation Limited (the holding company),
- Meghalaya Power Distribution Corporation Limited (Distribution Utility),
- Meghalaya Power Generation Corporation Limited (Generation Utility)
- Meghalaya Power Transmission Corporation Limited (Transmission Utility).

The aforesaid scheme was further amended on 31st March 2012, which led to the transfer of assets and liabilities including all rights and obligation and contingencies with effect from 1st April 2012 to the aforementioned four companies.

The MSERC is an independent statutory body constituted under the provisions of the Electricity Regulatory Commissions (ERC) Act 1998, which was superseded by Electricity Act (EA) 2003. The Hon’ble Commission is vested with the authority of regulating the power sector in the State inter alia including determination of tariff for electricity consumers.

1.2 REGULATORY PROVISION FOR FILING OF PETITION FOR APPROVAL OF BUSINESS PLAN

The Hon’ble Commission has notified the Meghalaya State Electricity Regulatory Commission (Multi Year Tariff) Regulations, 2026 on 31st July 2026 (**referred hereinafter as Tariff Regulations 2026**) which is applicable for control period of 5 years starting from 1st April 2027 up to 31st March 2032.

The Regulation 2.1 of the Tariff Regulation 2026 states that:

“2.1. Multi-Year Tariff framework

2.1.1. The Commission shall determine the tariff for matters covered under Regulation 1.3 above under Multi-Year Tariff framework with effect from April 01, 2027 on annual basis along with Truing up of revenue of previous year (at the time of filing).

Provided that the Commission may, either on Suo-moto basis or upon application made to it by an applicant, determine tariff for more than one year.

2.1.2. The Multi-Year Tariff framework shall be based on the following elements, for

determination of Aggregate Revenue Requirement and expected revenue from tariff and charges for Generating Company, Transmission Licensee, Distribution Business and SLDC:

a) A detailed Business Plan based on the principles specified in these Regulations, for each year of the Control Period, shall be submitted by the applicant for the Commission's approval prior to the beginning of the Control Period:

Provided that the performance parameters, whose trajectories have been specified in this Regulation, shall form the basis of projection of these performance parameters in the Business Plan:

Provided further that a Mid-term Review of the Business Plan for each year of the control period may be sought by the Generating Company, Transmission Licensee, Distribution Licensee and SLDC through an application filed three (3) months prior to the filing of Petition for truing-up for the preceding year and the tariff determination for the subsequent year of the control period.

b) Based on the Business Plan, the applicant shall submit the forecast of Aggregate Revenue Requirement (ARR) for the entire Control Period and expected revenue from existing tariffs for first year of the Control Period and the Commission shall determine ARR for the entire Control Period and the tariff for the first year of the control period for the Generating Company, Transmission Licensee, Distribution Business and SLDC;

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Further, Regulation 2.5 of the Tariff Regulations 2026 defines the scope of the Business Plan to be filed by generating, distribution and transmission corporation and SLDC as under:

2.5. Business Plan

2.5.1. The Generating Company, Transmission licensee, Distribution Licensee and SLDC, shall file a Business Plan three (3) months prior to the last date of filing of True-Up Petition for the preceding year i.e. 30th November of the previous year for the Control Period of Five (5) financial years from 1st April 2027 to 31st March 2032, which shall comprise but not be limited to detailed category-wise sales and demand projections, power procurement plan, capital investment plan, financing plan and physical targets, in accordance with guidelines and formats, as may be prescribed by the Commission from time to time:

Provided that a mid-term review of the Business Plan/Petition may be sought by the Generating Company, Transmission Licensee, Distribution Licensee and SLDC through an application filed three (3) months prior to the filing of Petition for truing-up for the preceding year and the tariff determination for the subsequent year of the control period.

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2.5.4. The Business Plan for the Distribution Licenses shall be for the entire Control Period and shall, interalia contain:

a. Capital investment plan considering the sales/ demand forecast, power procurement plan, distribution loss trajectory, targets for quality of supply, etc. The capital investment plan shall be consistent with the perspective plan drawn by the Transmission Licensee, and the investment plan should also include yearly phasing of capital expenditure along with the source of funding, financing plan and corresponding capitalisation schedule;

b. Sales/demand forecast for each customer category and sub-categories for each year of the Control Period;

c. Distribution loss reduction trajectory for each year of the Control Period; including details of the measures proposed to be taken for achieving the target loss;

d. The Distribution Licensee shall project the power purchase requirement based on the Merit Order Dispatch principles of all Generating Stations considered for power purchase, details related to availability of power from renewable energy sources and actions proposed for complying with the RPO specified by the Commission under the Meghalaya State Electricity Regulatory Commission (Renewal Energy Purchase Obligation and its Compliance) Regulations, 2018 and its subsequent amendment or re-enactment and the target set, if any, for Energy Efficiency (EE) and Demand Side Management (DSM) schemes.

e. Collection efficiency improvement trajectory for each year of the Control Period;

f. The appropriate capital structure of each scheme proposed and cost of financing (interest on debt and return on equity), terms of the existing loan agreements, etc.;

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Meghalaya Power Distribution Corporation Limited would like to submit the Business Plan for the fifth control period i.e., from FY 2027-28 to FY 2031-32 has been prepared based on the principles laid down in above mentioned extracts of Regulations.

The projections of following components have been included in the business plan.

1. Projection of Connected Load and Number of Consumers.
2. Projections of Category Wise Sales for each year of the control period
3. Projection of the Trajectory for T&D Losses and Collection efficiency.
4. Detailed Power Procurement Plan along with the estimation of surplus power available for sale and short-term procurement from open market.
5. Renewable Consumption Obligation
6. Capital Investment Plan along with the funding pattern of the same.
7. Expenditure to be incurred under TOTEX Mode.

Detailed projection of each of the above components along with the assumptions for projection have been discussed in subsequent chapters of this Petition.

2. OPERATIONAL PERFORMANCE OF MEGHALAYA POWER DISTRIBUTION CORPORATION LIMITED IN PAST FEW YEARS

Meghalaya Power Distribution Corporation Limited is a Distribution Licensee in the State of Meghalaya and is vested with functions of the distribution licensee as outlined in the Electricity Act 2003.

Meghalaya Power Distribution Corporation Limited as on date serves around 7,20,000 consumers with a connected load of around 1500 MW. The growth in number of consumers, connected load and sales in terms of MU is shown in the table below:

Table 1 Growth in Sales, Connected Load and Number of Consumers

Particular	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Sales (MU)	1259.48	1326.45	1549.65	1781.47	1434.00	1405.02	1636.52
Connected Load (MW)	888.96	1100.79	1206.17	1340.87	1381.57	1378.17	1496.43
No. of Consumers	502565	596014	608752	682030	690596	707341	720950

Further, the **energy demand** in terms of MU and **Peak demand** in MW of the state over the past years is tabulated below:

Table 2 Peak Demand and Energy Requirement of State

Year	Peak Demand (MW)	Energy Requirement (MU)
2017-18	369	1557
2018-19	374	1957
2019-20	371	2112
2020-21	384	2031
2021-22	408	2256
2022-23	404	2237
2023-24	405	2236
2024-25	408	2046
2025-26	374	2095

The Peak Demand as well as entire Energy Demand has been met in last 3 years without any scheduled load shedding.

MePDCL has been making efforts to reduce the T&D Losses and AT&C losses in the state. The past 5 years' performance in terms of AT&C and Distribution Losses is tabulated below:

Table 3 Commercial Parameters of MePDCL

Parameter	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
AT&C Loss	32.07%	29.67%	25.95%	24.05%	16.12%	10.88%	14.80%
T&D Loss	29.88%	26.75%	21.76%	16.47%	18.88%	16.60%	14.81%
Billing Efficiency	73.60%	72.96%	75.23%	83.53%	81.12%	83.40%	86.80%
Collection Efficiency	90.90%	96.27%	100.23%	86.39%	103%	107%	100.11%

Table 4 ACS ARR Gap of MePDCL

Parameter	2021-22	2022-23	2023-24	2024-25	2025-26
ACS-ARR Gap	0.09	1.41	0.90	(-)0.30	(-)1.50

Apart from the above commercial parameters, MePDCL has also made a significant progress in the reliability and quality of supply. The average Hours of Supply in the Rural and Urban areas in past few years is as under:

Table 5: Hours of Supply in HH.hh

	FY-22-23		FY-23-24		FY-24-25		FY 25-26	
Particular	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Average Hours of Supply	21.40	23.04	21.52	23.14	22.55	23.21	23:03	23:23

Meghalaya Power Distribution Corporation has on-boarded 90% of the feeders on National Feeder Monitoring System portal which allows real-time monitoring of the power supply position and the reliability indices such as SAIFI and SAIDI.

Meghalaya Power Distribution Corporation has made all efforts to make the power management efficient and improve the commercial operation in order to ensure that the available sources of power are utilized in the best possible way to ensure 24 by 7 power availability and that too at an optimal cost.

Table 6: Energy Management

Period	Sale			Purchase		
	Quantum	Amount	Rs./kWh	Quantum	Amount	Rs./kWh
April 2021- March 2022	189.72	92.04	4.85	66.50	24.94	3.75

April 2022- March 2023	116.04	55.27	4.76	62.61	24.41	3.90
April 2023- March 2024	126.13	117.63	9.33	157.02	54.02	3.44
April 2024-March 2025	749.99	531.65	7.09	115.09	36.52	3.17
April 2025- March 2026	707.11	472.30	6.68	347.79	105.23	3.02

The growth in the infrastructure during the last few years is tabulated below:

Table 7 Growth in Distribution Network

S.No.	Year	33 KV Lines Ckt Km.	11 KV Lines Ckt Km.	LT lines Ckt Km.	Number of DT
1	2020-21	2524.00	16902.25	25157.55	11204.00
2	2021-22	2630.00	17240.30	27170.15	12324.00
3	2022-23	2685.00	17585.11	28528.66	13310.00
4	2023-24	2794.00	17936.81	29384.52	13976.00
5	2024-25	3228.00	18295.54	30266.06	14814.00
6	2025-26	3528.00	19942.14	31779.36	16296.00
	CAGR	5.74%	2.79%	3.97%	6.44%
	% Increment	39.78%	17.99%	26.32%	45.45%

3. PROJECTION OF NUMBER OF CONSUMERS AND CONNECTED LOAD

MePDCL would like to submit that to project the number of consumers and connected load for the next control period i.e., FY 2027-28 to FY 2031-32, the data pertaining to these two parameters for past 5 years i.e., FY 2021-22 to FY 2025-26 has been analysed and the projection has been made on the basis of CAGR (Compound Annual Growth Rate). MePDCL would like to submit that instead of considering the CAGR for a particular tenure, CAGR has been computed for 5 Years, 4 Years and 3 Years and the average of the three has been taken. In cases where the Average CAGR of 5, 4 and 3 years comes to negative the growth rate has been considered as zero while in case CAGR is more than 10%, the growth rate considered for projection has been restricted to 10%.

The five years, four years and three years CAGR and the rate considered for different categories of consumers for number of consumers and connected load is as under:

Table 8 Rate Considered for Projection of Number of Consumers

Consumer Category	CAGR and Rate Considered for Projection - No. of Consumers				
	5 Year CAGR	4 Year CAGR	3 Year CAGR	Average	Rate Considered
LT Category					
Domestic (DLT)	3.78%	1.68%	1.74%	2.40%	2.40%
Commercial (CLT)	8.09%	2.85%	4.29%	5.08%	5.08%
Industrial (ILT)	6.10%	-2.29%	-0.63%	1.06%	1.06%
Agriculture (AP)	37.04%	28.91%	38.14%	34.70%	10.00%
Public Lighting (PL)	5.06%	-4.83%	-3.40%	0.00%	0.00%
Water Supply (WSLT)	12.89%	8.13%	9.71%	10.25%	10.00%
General Purpose (GP)	5.84%	2.80%	6.34%	4.99%	4.99%
BPL	2.13%	-0.03%	0.16%	0.75%	0.75%
Crematorium (CRM)	0.00%	0.00%	0.00%	0.00%	0.00%
HT Category					
Domestic (DHT)	5.28%	2.65%	3.82%	3.92%	3.92%
Water Supply (WSHT)	24.90%	22.27%	23.34%	23.51%	23.51%
Bulk Supply (BS)	5.13%	5.81%	8.00%	6.31%	6.31%
Commercial (CHT)	13.51%	4.87%	7.18%	8.52%	8.52%
Industrial (IHT)	9.58%	1.43%	4.51%	5.17%	5.17%
Ferro Alloy HT	0.00%	0.00%	-9.14%	0.00%	0.00%
EHT Category					
Industrial (EHT)	14.87%	0.00%	0.00%	4.96%	4.96%
Ferro Alloy (EHT)	0.00%	0.00%	10.06%	3.35%	3.35%

Table 9 Rate Considered for Projection of Connected Load

Consumer Category	CAGR and Rate Considered for Connected Load Projection				
	5 Year CAGR	4 Year CAGR	3 Year CAGR	Average	Rate Considered
LT					
Domestic (DLT)	7.0%	5.27%	2.72%	5.01%	5.01%
Commercial (CLT)	11.4%	9.88%	4.44%	8.59%	8.59%
Industrial (ILT)	5.4%	6.78%	-0.37%	3.94%	3.94%
Agriculture (AP)	21.6%	31.73%	9.75%	10.00%	5.00%
Public Lighting (PL)	-28.0%	-23.25%	-30.04%	-27.11%	0.00%
Water Supply (WSLT)	6.4%	16.23%	13.92%	10.00%	10.00%
General Purpose (GP)	7.0%	4.33%	3.20%	4.84%	4.84%
BPL	9.1%	1.91%	0.16%	3.71%	3.71%
Crematorium (CRM)	0.3%	0.37%	0.49%	0.38%	0.38%
HT					
Domestic (DHT)	6.5%	4.82%	3.36%	4.91%	4.91%
Water Supply (WSHT)	18.4%	19.23%	16.80%	10.00%	10.00%
Bulk Supply (BS)	4.5%	5.48%	5.96%	5.32%	5.32%
Commercial (CHT)	16.4%	15.02%	11.29%	10.00%	5.00%
Industrial (IHT)	-6.5%	1.23%	2.71%	-0.85%	0.00%
Ferro Alloy	0.0%	0.00%	-13.19%	-4.40%	0.00%
EHT					
Industrial (EHT)	35.5%	19.63%	2.22%	10.00%	10.00%
Ferro Alloy (EHT)	-2.6%	-6.59%	-2.97%	-4.06%	0.00%

MePDCL would like to further submit that till June 2026, four sub divisions of the States were being operated by Distribution Franchisee, however since June 2026 one of the sub-division i.e., Mawsynram has been taken over by MePDCL. Hence, the number of consumer and the respective connected load in Mawsynram area have been added to respective consumer category in FY 2026-27 before projecting the number and connected load.

The details of number of consumers and connected load (category wise) in the Mawsynram area that have been added is as under:

Table 10 Details of Number of Consumers and Connected Load in Mawsynram Area

Consumer category	No. of Consumers	Connected Load (kW)
BPLM	10155	5285.4
BPLU	336	39.48
BS	7	505
CLT	702	2096.19
DHT	1	129
DLT	10188	12287.47
GP	80	985.16
ILT	28	445.46
WSHT	1	66
WSLT	8	161.78
Total	21506	22000.94

In addition to above, MePDCL is also in the process of implementation of Additional Household Electrification works under RDSS. Under this scheme around 55628 households have been identified for electrification. The scheme is expected to be completed by March 2028. Considering that these households which are mostly in villages will have a connected load of 1 kW, 30% of the total household to be electrified have been considered in FY 2026-27 and 70% have been considered in FY 2027-28 and the connected load under DLT category have been projected accordingly.

MePDCL would like to further submit that under Industrial EHT category, M/S Shri Cement Limited has applied for a connected load of 14 MW which is expected to commence in FY 2027-28 accordingly under number of consumer -1 and under connected load – 14 MW has been considered in FY 2027-28 over and above the rate based estimation.

Further, under Ferro Alloys EHT category, M/S Eastern Silicon Ferro Alloys has commenced the operation and drawing power in FY 2026-27 has hence One number of consumer and connected load of 8890 kVA has been added in FY 2026-27 over and above the projections.

Based on the rates and the adjustment mention above the projected number of consumers and connected load for the control period FY 2027-28 to FY 2031-32 is as tabulated as under:

Table 11 Projection of Number of Consumers and Connected Load for Fifth Control Period

Consumer Category	2027-28		2028-29		2029-30		2030-31		2031-32	
	No. of Consumers	Connected Load (kW)	No. of Consumers	Connected Load (kW)	No. of Consumers	Connected Load (kW)	No. of Consumers	Connected Load (kW)	No. of Consumers	Connected Load (kW)
LT										
Domestic (DLT)	413617	754806.47	423550	792604.86	433721	832296.07	444137	873974.90	454803	917740.87
Commercial (CLT)	43378	160538.79	45580	174330.96	47894	189308.03	50325	205571.81	52880	223232.84
Industrial (ILT)	670	11710.65	677	12172.10	684	12651.74	691	13150.27	698	13668.45
Agriculture (AP)	70	298.78	77	313.72	85	329.40	94	345.87	103	363.17
Public Lighting (PL)	64	482.37	64	482.37	64	482.37	64	482.37	64	482.37
Water Supply (WSLT)	757	13401.44	833	14741.59	916	16215.75	1008	17837.32	1109	19621.05
General Purpose (GP)	3061	21162.77	3214	22187.93	3374	23262.76	3542	24389.66	3719	25571.14
BPL	197166	203823.22	198651	211384.94	200147	219227.20	201655	227360.40	203174	235795.34
Crematorium (CRM)	1	138.06	1	138.59	1	139.12	1	139.66	1	140.19
Sub-Total LT	658784	1166362.55	672647	1228357.05	686886	1293912.44	701517	1363252.26	716551	1436615.42
HT										
Domestic (DHT)	154	27254.38	160	28592.22	166	29995.72	173	31468.12	180	33012.79
Water Supply (WSHT)	233	31639.07	288	34802.98	356	38283.28	440	42111.60	543	46322.76
Bulk Supply (BS)	304	65472.11	323	68955.98	343	72625.23	365	76489.73	388	80559.87
Commercial (CHT)	327	47785.01	355	50174.26	385	52682.97	418	55317.12	454	58082.98
Industrial (IHT)	241	128957.96	253	128957.96	266	128957.96	280	128957.96	294	128957.96
Ferro Alloy	3	17019.00	3	17019.00	3	17019.00	3	17019.00	3	17019.00
Sub-Total HT	1262	318127.54	1382	328502.40	1519	339564.17	1679	351363.54	1862	363955.37
EHT										
Industrial (EHT)	11	151209.46	12	166330.41	13	182963.45	14	201259.79	15	221385.77
Ferro Alloy (EHT)	5	53701.00	5	53701.00	5	53701.00	5	53701.00	5	53701.00
Sub-Total EHT	16	204910.46	17	220031.41	18	236664.45	19	254960.79	20	275086.77
Grand Total	660062	1689400.54	674046	1776890.86	688423	1870141.05	703215	1969576.59	718433	2075657.56

4. ESTIMATION OF CATEGORY WISE SALES

MePDCL would like to submit that for projection of category wise sales, the methodology adopted in the previous Petitions, has not been on the CAGR basis. The reason for the same is that the CAGR projections result in inflation of projected sales which is not a healthy practice. Hence, MePDCL in this instant Petition has projected the sales on the basis of two Statistical Methods which are more suitable for States like Meghalaya. The two methods selected are Time Series Analysis and Least Square Method. The methodology adopted for each category is tabulated below:

Table 12 Category-Wise Sales for Past Five Years and Method of Projection for Fifth Control Period

Tariff Category	2021-22	2022-23	2023-24	2024-25	2025-26	Average	Method of Projection	Time Frame Considered
Domestic (DLT)	374.33	388.55	400.48	430.49	419.56	402.68	Time Series	2021-22 to 2025-26
Commercial (CLT)	62.66	78.03	87.32	105.27	111.74	89.00	Time Series	2021-22 to 2025-26
Industrial (ILT)	7.06	4.95	4.89	4.62	5.17	5.34	Time Series	2022-23 to 2025-26
Agriculture (AP)	0.27	0.09	0.10	0.23	0.17	0.17	Least Square Method	2021-22 to 2025-26
Public Lighting (PL)	0.45	1.03	1.27	1.54	1.48	1.15	Least Square Method	2021-22 to 2025-26
Water Supply (WSLT)	8.32	8.43	7.77	8.41	9.13	8.41	Time Series	2021-22 to 2025-26
General Purpose (GP)	14.15	13.03	14.27	15.63	17.79	14.97	Time Series	2021-22 to 2025-26
BPL	77.34	83.72	81.27	77.22	74.81	78.87	Time Series	2021-22 to 2025-26
Crematorium (CRM)	0.14	0.18	0.19	0.16	0.18	0.17	Least Square Method	2021-22 to 2025-26
Domestic (DHT)	20.97	21.54	21.50	23.90	26.90	22.96	Time Series	2022-23 to 2025-26
Water Supply (WSHT)	33.61	34.88	38.98	39.23	46.56	38.65	Time Series	2024-25 to 2025-26
Bulk Supply (BS)	80.77	77.04	80.41	75.44	94.32	81.60	Time Series	2021-22 to 2025-26
Commercial (CHT)	24.16	30.72	34.37	40.89	44.89	35.00	Time Series	2021-22 to 2025-26
Industrial (IHT)	203.18	133.08	114.14	123.17	151.17	144.95	Time Series	2021-22 to 2025-26
Ferro Alloy	106.50	109.20	128.60	72.53	72.20	97.80	Time Series	2023-24 to 2025-26
Industrial (EHT)	64.37	263.36	96.16	46.70	142.65	122.65	Time Series	2024-25 to 2025-26

Tariff Category	2021-22	2022-23	2023-24	2024-25	2025-26	Average	Method of Projection	Time Frame Considered
Ferro Alloy (EHT)	402.46	408.41	198.81	174.14	261.06	288.98	Time Series	2024-25 to 2025-26
Electric Vehicle	0.00	0.00	0.00	0.00	0.00	0.00	Estimation Based on Load Factor	
Distribution Franchisee	68.92	125.22	123.47	165.45	156.75	127.96	CAGR	2021-22 to 2025-26
Total	1549.65	1781.47	1434.00	1405.02	1636.52			

4.1 BASIS OF CHOICE OF METHODS FOR SALES PROJECTION AND TIME FRAMES

MePDCL would like to submit that it has chosen the time series method for the consumer category whose average consumption in last 5 years has been more than 5 MU annually while for the consumers where the annual average consumption for the last 5 years has been less than 5 MU, the least square method has been used for projection.

MePDCL would also like to submit that as mentioned in the table in some of the categories different time frames have been chosen because of the following reasons:

1. In Industrial LT consumer the base data has been considered from FY 2022-23 to FY 2025-26 instead of FY 2021-22 because of the reason that since FY 2022-23 there has been a substantial drop in the specific consumption i.e., kWh/ kW. In case FY 2021-22 is also considered for analysis and projection the result will be distorted because of the presence of the outliers.
2. Under the consumer category of Domestic HT, the base data has been considered from FY 2022-23 to FY 2025-26 because of the same reason as mention in point no.1 above.
3. For the Water Supply HT connections, the base data has been considered for FY 2024-25 to FY 2025-26 since a lot of connections have been given under Jal Jeevan Mission (JJM). However, the downstream connections are yet to be provided by PHE department which has resulted in a much lower specific consumption in terms of kWh/kW since 2024-25. Hence in case base data of earlier years is considered the projections would be highly distorted.
4. For Industrial EHT and Ferro Alloys EHT consumers the base data has been considered as FY 2024-25 and FY 2025-26 specific consumption pattern of the consumers in these categories.

MePDCL would like to further submit that till FY 2025-26 there were no EV Charging Stations in the State and hence the consumption pattern is not available. However, in 2026-27 new connections have been provided to 5 EV Charging Stations with a connected load of 276 kW hence the projection for this consumer category has been done on the basis of load factor as defined in the MSERC (Supply Code) Regulations, 2026.

The Sale to Franchisee has been considered based on the CAGR basis. However, due care has been taken to exclude the sale in the Mawsynram area which would now be under the jurisdiction of MePDCL. However, MePDCL would also like to submit that the Franchisee has challenged the cancellation of Mawsynram area before the Hon'ble High Court of Meghalaya and the matter is still under adjudication however there is no stay by Hon'ble High Court in the matter. Hence, MePDCL craves leave of the Hon'ble Commission to revise the sales in subsequent years based on the Judgement passed by Hon'ble High Court of Meghalaya.

4.2 STEP BY STEP METHOD FOR TIME SERIES ANALYSIS BASED PROJECTION OF SALES

Step 1: In the first step the data of quarter wise connected load and sales in that particular has been gathered.

Step 2: The specific consumption in terms of kWh/ kW has been computed for each quarter.

Step 3: It has been observed that in almost all the categories the specific consumption shows a seasonal trend where in the consumption is more in the fourth quarter i.e., January to March each year.

Step 4: To smoothen the curve of consumption the 4 Period moving average is computed. However, since the data set considered for analysis is even number, to centralize the moving average the Centralized Moving Average has been computed.

Step 5: To compute the seasonality of the consumption the Actual consumption in the particular quarter has been divided by the Centralized Moving Average.

Step 6: Average Seasonal component of each quarter is computed by taking the average of the seasonality index computed in the Step 5.

Step 7: The average seasonality index is then placed before each quarter of past data and projections.

Step 8: The de-seasonalized consumption is computed by dividing the actual consumption during the quarter by the seasonality index of the respective quarter.

Step 9: In the next step, using data analysis tools regression has been run with known y variable as the consumption computed in Step 8 and known X as the period no. i.e., - Year 1 Quarter =1, Year 2 Quarter 1 = 5 and so on.

Step 10: To compute the trend component of the Time Series the specific consumption has been recomputed as under:

Specific Consumption = Intercept +Co-efficient*(Period No.) (defined as Known X in Step 9)

Step 11: The forecast specific consumption has been computed by dividing the consumption arrived at in Step 10 by the seasonal index.

Step 12: The quarterly specific consumption is then multiplied by the projected connected load to arrive at the sales.

A detailed excel sheet capturing the above working has been annexed to this Petition as Annexure_Sales_Projection along with the Annexure_Categorywise_Projections.

Based on the above computations the projected category wise sales for the Fifth Control Period i.e., 2027-28 to 2031-32 is tabulated below:

Table 13 Category Wise Projected Sales for Fifth Control Period

Category	FY 2025-26 (Actual)	FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30	FY 2030-31	FY 2031-32
DLT	419.56	467.93	497.65	501.10	503.66	505.21	505.65
CLT	111.74	133.27	147.41	163.00	180.18	199.11	219.96
ILT	5.17	4.87	4.75	4.61	4.45	4.27	4.07
AP	0.17	0.33	0.39	0.46	0.54	0.62	0.71
PL	1.48	1.14	1.35	1.56	1.78	1.99	2.21
WSLT	9.13	10.40	10.55	10.64	10.63	10.52	10.28
GP	17.79	18.01	18.45	18.89	19.33	19.76	20.20
CRM	0.18	0.20	0.20	0.21	0.22	0.23	0.24
BPL	74.81	59.21	53.35	46.96	40.03	32.51	24.39
Sub-Total (LT)	640.01	695.35	734.10	747.43	760.81	774.23	787.70
DHT	26.90	28.29	29.26	30.25	31.27	32.32	33.40
WSHT	46.56	54.39	56.92	59.41	61.84	64.15	66.31
BS	94.32	94.93	97.36	99.79	102.20	104.59	106.94
CHT	44.89	50.50	51.64	52.78	53.89	54.99	56.06
IHT	151.17	132.98	124.71	116.43	108.16	99.88	91.61
FAHT	72.20	59.74	53.18	46.62	40.06	33.50	35.27
Sub-Total (HT)	436.03	420.82	413.06	405.28	397.42	389.43	389.59
IEHT	142.65	161.26	195.74	219.31	230.15	240.97	251.65
FAEHT	261.06	313.71	351.11	388.51	425.91	463.31	500.71
Sub-Total (EHT)	403.71	474.97	546.85	607.82	656.06	704.28	752.36
EV Charging Station	0.00	0.95	2.6352	5.2524	7.8804	9.846	12.85
Distribution Franchisee	156.75	142.53	145.66	148.89	152.20	155.60	159.10
Grand Total	1636.52	1734.61	1842.32	1914.67	1974.36	2033.38	2101.59

The above sales is also converted into monthly sales for each year using the average % consumption in each quarter for past two years.

Table 14 Average % Monthly Contribution in Quarterly Sales

Tariff Category	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
Domestic (DLT)	35.21%	31.49%	33.30%	32.41%	33.54%	34.04%	33.44%	34.88%	31.68%	35.92%	33.37%	30.71%
Commercial (CLT)	35.48%	32.55%	31.97%	32.12%	33.49%	34.40%	32.88%	35.63%	31.49%	35.42%	33.21%	31.37%
Industrial (ILT)	35.50%	33.13%	31.37%	32.15%	34.43%	33.42%	32.57%	32.74%	34.69%	34.34%	34.06%	31.60%
Agriculture (AP)	36.88%	33.35%	29.77%	45.33%	24.00%	30.67%	37.94%	30.16%	31.90%	42.00%	35.44%	22.57%
Public Lighting (PL)	34.50%	33.21%	32.29%	36.61%	34.58%	28.81%	33.79%	32.88%	33.33%	30.54%	32.91%	36.55%
Water Supply (WSLT)	35.84%	32.32%	31.84%	38.44%	28.76%	32.80%	33.72%	33.84%	32.43%	30.35%	34.84%	34.81%
General Purpose (GP)	35.50%	30.68%	33.83%	31.08%	32.23%	36.69%	30.22%	35.14%	34.63%	28.97%	31.49%	39.54%
BPL	34.05%	32.49%	33.46%	34.52%	37.04%	28.45%	33.42%	36.58%	30.00%	35.74%	33.11%	31.15%
Crematorium (CRM)	29.57%	37.63%	32.79%	36.51%	32.31%	31.17%	36.18%	31.68%	32.14%	36.44%	31.24%	32.32%
Domestic (DHT)	38.71%	31.71%	29.58%	36.86%	33.34%	29.80%	33.81%	35.30%	30.89%	37.23%	29.91%	32.85%
Water Supply (WSHT)	34.97%	34.53%	30.50%	34.40%	32.33%	33.27%	33.40%	31.80%	34.80%	34.22%	32.27%	33.51%
Bulk Supply (BS)	36.48%	31.31%	32.21%	34.90%	32.37%	32.73%	30.19%	31.72%	38.08%	37.44%	32.52%	30.05%
Commercial (CHT)	33.55%	33.66%	32.79%	35.76%	32.58%	31.66%	33.15%	32.11%	34.74%	35.79%	32.02%	32.20%
Industrial (IHT)	34.10%	32.79%	33.11%	31.09%	36.20%	32.71%	37.73%	31.34%	30.94%	29.99%	38.76%	31.24%
Ferro Alloy	26.63%	32.33%	41.04%	34.56%	32.42%	33.02%	33.25%	37.41%	29.34%	33.76%	31.54%	34.69%
Industrial (EHT)	21.33%	36.99%	41.68%	35.54%	38.49%	25.98%	51.79%	23.18%	25.02%	38.25%	25.46%	36.29%
Ferro Alloy (EHT)	23.69%	38.48%	37.83%	32.82%	34.70%	32.48%	32.05%	32.75%	35.19%	39.72%	20.15%	40.14%
Electric Vehicle												
Distribution Franchisee	34.27%	31.35%	34.39%	33.75%	34.56%	31.68%	31.97%	43.96%	24.08%	27.36%	35.14%	37.50%

Table 15 Projected Monthly Sales for FY 2027-28

Category	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
DLT	41.52	37.14	39.27	37.31	38.62	39.19	41.09	42.85	38.92	50.92	47.29	43.53
CLT	11.54	10.59	10.40	10.39	10.83	11.13	10.52	11.40	10.08	12.89	12.09	11.41
ILT	0.43	0.40	0.38	0.38	0.41	0.40	0.38	0.39	0.41	0.40	0.39	0.37
AP	0.03	0.03	0.03	0.04	0.02	0.03	0.04	0.03	0.03	0.04	0.04	0.02
PL	0.11	0.11	0.10	0.12	0.11	0.10	0.12	0.11	0.11	0.11	0.12	0.13
WSLT	0.98	0.88	0.87	1.04	0.78	0.89	0.82	0.82	0.79	0.77	0.88	0.88
GP	1.49	1.29	1.42	1.31	1.35	1.54	1.31	1.53	1.50	1.53	1.66	2.08
CRM	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
BPL	4.48	4.27	4.40	4.60	4.94	3.79	4.40	4.82	3.95	4.89	4.53	4.26
Sub-Total (LT)	60.60	54.72	56.89	55.21	57.08	57.08	58.70	61.96	55.81	71.56	67.02	62.71
DHT	2.77	2.27	2.12	2.76	2.50	2.23	2.75	2.87	2.51	2.41	1.94	2.13
WSHT	5.02	4.96	4.38	4.59	4.31	4.44	4.69	4.47	4.89	5.19	4.89	5.08
BS	7.60	6.53	6.71	7.07	6.56	6.63	7.78	8.18	9.82	11.41	9.91	9.16
CHT	3.93	3.94	3.84	4.42	4.02	3.91	4.47	4.33	4.69	5.05	4.52	4.54
IHT	10.48	10.08	10.18	8.90	10.36	9.36	11.22	9.32	9.20	10.68	13.80	11.12
FAHT	3.60	4.38	5.55	4.07	3.82	3.89	4.69	5.28	4.14	4.64	4.34	4.77
Sub-Total (HT)	33.41	32.15	32.78	31.81	31.58	30.47	35.61	34.45	35.25	39.37	39.39	36.80
IEHT	11.69	20.27	22.83	20.17	21.85	14.75	21.14	9.46	10.22	16.59	11.04	15.74
FAEHT	22.58	36.66	36.04	30.89	32.66	30.56	26.24	26.81	28.81	31.72	16.09	32.05
Sub-Total (EHT)	34.26	56.93	58.88	51.06	54.50	45.31	47.38	36.28	39.02	48.31	27.13	47.79
EV Charging Station	0.11	0.11	0.11	0.22	0.22	0.22	0.22	0.22	0.22	0.33	0.31	0.33
Distribution Franchisee	10.32	10.10	12.66	14.06	13.89	13.73	13.03	10.62	12.20	12.86	11.65	10.56
Grand Total	138.70	154.01	161.31	152.36	157.27	146.80	154.94	143.53	142.50	172.44	145.50	158.20

Table 16 Projected Monthly Sales for FY 2028-29

Category	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
DLT	41.84	37.42	39.57	37.58	38.90	39.47	41.36	43.14	39.19	51.24	47.59	43.81
CLT	14.12	12.95	12.72	12.71	13.25	13.61	12.87	13.95	12.32	15.76	14.78	13.96
ILT	0.42	0.39	0.37	0.37	0.40	0.39	0.37	0.37	0.40	0.38	0.38	0.35
AP	0.04	0.04	0.03	0.05	0.03	0.03	0.04	0.04	0.04	0.05	0.04	0.03
PL	0.13	0.12	0.12	0.14	0.13	0.11	0.13	0.13	0.13	0.13	0.14	0.15
WSLT	1.01	0.91	0.89	1.06	0.80	0.91	0.83	0.84	0.80	0.78	0.90	0.90
GP	1.56	1.35	1.49	1.37	1.42	1.62	1.38	1.60	1.58	1.60	1.74	2.19
CRM	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
BPL	3.98	3.80	3.91	4.06	4.36	3.35	3.87	4.23	3.47	4.26	3.95	3.71
Sub-Total (LT)	63.11	57.00	59.13	57.37	59.30	59.51	60.88	64.31	57.94	74.23	69.54	65.11
DHT	2.87	2.35	2.19	2.85	2.58	2.31	2.85	2.97	2.60	2.49	2.00	2.20
WSHT	5.25	5.18	4.58	4.80	4.51	4.64	4.89	4.66	5.10	5.41	5.10	5.30
BS	7.80	6.69	6.88	7.25	6.72	6.80	7.98	8.38	10.06	11.69	10.15	9.38
CHT	4.01	4.03	3.92	4.51	4.11	4.00	4.57	4.43	4.79	5.16	4.61	4.64
IHT	9.80	9.43	9.52	8.31	9.68	8.75	10.47	8.70	8.59	9.95	12.86	10.37
FAHT	3.18	3.86	4.90	3.58	3.35	3.42	4.11	4.62	3.62	4.04	3.78	4.15
Sub-Total (HT)	32.91	31.54	32.00	31.30	30.96	29.91	34.86	33.76	34.76	38.74	38.51	36.04
IEHT	12.30	21.33	24.03	21.67	23.47	15.84	24.36	10.90	11.77	20.51	13.65	19.46
FAEHT	25.07	40.72	40.03	34.21	36.17	33.85	28.99	29.62	31.83	34.96	17.73	35.33
Sub-Total (EHT)	37.37	62.05	64.06	55.88	59.64	49.69	53.36	40.53	43.60	55.47	31.38	54.79
EV Charging Station	0.32	0.33	0.32	0.45	0.45	0.43	0.45	0.43	0.45	0.56	0.50	0.56
Distribution Franchisee	10.55	10.32	12.94	14.37	14.19	14.04	13.31	10.86	12.47	13.15	11.91	10.79
Grand Total	144.26	161.24	168.45	159.37	164.54	153.58	162.86	149.88	149.21	182.14	151.84	167.29

Table 17 Projected Monthly Sales for FY 2029-30

Category	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
DLT	42.09	37.64	39.80	37.78	39.10	39.69	41.57	43.35	39.38	51.46	47.80	44.00
CLT	15.61	14.32	14.07	14.05	14.65	15.04	14.23	15.41	13.62	17.42	16.33	15.43
ILT	0.41	0.38	0.36	0.36	0.39	0.38	0.36	0.36	0.38	0.37	0.37	0.34
AP	0.05	0.04	0.04	0.06	0.03	0.04	0.05	0.04	0.04	0.06	0.05	0.03
PL	0.15	0.14	0.14	0.16	0.15	0.13	0.15	0.15	0.15	0.14	0.15	0.17
WSLT	1.01	0.91	0.90	1.06	0.80	0.91	0.83	0.84	0.80	0.78	0.90	0.90
GP	1.60	1.38	1.52	1.40	1.45	1.66	1.41	1.64	1.61	1.64	1.78	2.24
CRM	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
BPL	3.44	3.28	3.38	3.48	3.74	2.87	3.28	3.59	2.94	3.58	3.32	3.12
Sub-Total (LT)	64.36	58.12	60.22	58.38	60.33	60.72	61.90	65.40	58.95	75.47	70.72	66.24
DHT	2.96	2.43	2.26	2.95	2.67	2.39	2.94	3.07	2.69	2.57	2.07	2.27
WSHT	5.47	5.40	4.77	4.99	4.69	4.83	5.09	4.85	5.31	5.62	5.30	5.51
BS	7.99	6.86	7.05	7.43	6.89	6.96	8.17	8.58	10.30	11.97	10.40	9.61
CHT	4.10	4.11	4.01	4.61	4.20	4.08	4.66	4.52	4.89	5.26	4.71	4.74
IHT	9.12	8.78	8.86	7.73	9.00	8.13	9.72	8.07	7.97	9.23	11.93	9.61
FAHT	2.76	3.35	4.25	3.08	2.89	2.95	3.52	3.96	3.11	3.44	3.22	3.54
Sub-Total (HT)	32.40	30.92	31.20	30.79	30.34	29.34	34.11	33.06	34.26	38.10	37.62	35.27
IEHT	12.92	22.40	25.24	22.75	24.64	16.63	25.56	11.44	12.35	21.50	14.32	20.41
FAEHT	27.57	44.77	44.02	37.53	39.69	37.14	31.74	32.43	34.85	38.20	19.37	38.60
Sub-Total (EHT)	40.49	67.17	69.25	60.28	64.32	53.77	57.30	43.87	47.20	59.70	33.69	59.01
EV Charging Station	0.54	0.56	0.54	0.56	0.56	0.54	0.78	0.76	0.78	0.78	0.71	0.78
Distribution Franchisee	10.78	10.55	13.23	14.69	14.51	14.35	13.61	11.10	12.74	13.44	12.17	11.03
Grand Total	148.57	167.32	174.45	164.70	170.05	158.72	167.70	154.18	153.94	187.50	154.90	172.33

Table 18 Projected Monthly Sales for FY 2030-31

Category	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
DLT	42.25	37.78	39.96	37.91	39.24	39.82	41.68	43.47	39.49	51.58	47.91	44.10
CLT	17.25	15.83	15.55	15.52	16.19	16.62	15.72	17.03	15.05	19.25	18.05	17.05
ILT	0.39	0.36	0.35	0.35	0.37	0.36	0.34	0.35	0.37	0.36	0.35	0.33
AP	0.06	0.05	0.04	0.07	0.04	0.05	0.06	0.05	0.05	0.07	0.06	0.04
PL	0.16	0.16	0.15	0.18	0.17	0.14	0.17	0.17	0.17	0.16	0.17	0.19
WSLT	1.00	0.90	0.89	1.06	0.79	0.90	0.82	0.83	0.79	0.77	0.88	0.88
GP	1.63	1.41	1.56	1.43	1.49	1.69	1.44	1.67	1.65	1.67	1.82	2.29
CRM	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
BPL	2.86	2.73	2.81	2.85	3.06	2.35	2.65	2.90	2.38	2.84	2.63	2.47
Sub-Total (LT)	65.62	59.25	61.32	59.39	61.36	61.96	62.91	66.48	59.96	76.72	71.89	67.36
DHT	3.06	2.51	2.34	3.05	2.76	2.47	3.04	3.17	2.78	2.66	2.14	2.35
WSHT	5.68	5.61	4.96	5.18	4.87	5.01	5.28	5.03	5.50	5.83	5.50	5.71
BS	8.18	7.02	7.22	7.60	7.05	7.13	8.36	8.78	10.54	12.25	10.64	9.83
CHT	4.18	4.20	4.09	4.70	4.29	4.17	4.76	4.61	4.99	5.37	4.80	4.83
IHT	8.45	8.12	8.20	7.14	8.32	7.52	8.97	7.45	7.36	8.50	10.99	8.86
FAHT	2.33	2.83	3.59	2.59	2.43	2.47	2.93	3.30	2.59	2.84	2.66	2.92
Sub-Total (HT)	31.88	30.29	30.40	30.27	29.71	28.76	33.34	32.35	33.76	37.45	36.72	34.49
IEHT	13.54	23.48	26.45	23.82	25.80	17.42	26.75	11.97	12.93	22.49	14.97	21.35
FAEHT	30.07	48.83	48.00	40.86	43.20	40.43	34.49	35.24	37.87	41.44	21.02	41.87
Sub-Total (EHT)	43.60	72.30	74.45	64.68	69.00	57.85	61.24	47.22	50.79	63.93	35.99	63.22
EV Charging Station	0.76	0.78	0.76	0.78	0.78	0.76	0.78	0.76	0.78	1.00	0.91	1.00
Distribution Franchisee	11.02	10.79	13.52	15.02	14.83	14.67	13.92	11.35	13.03	13.74	12.44	11.28
Grand Total	152.89	173.41	180.45	170.14	175.68	163.99	172.19	158.15	158.32	192.84	157.95	177.36

Table 19 Projected Monthly Sales for FY 2031-32

Category	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
DLT	42.32	37.85	40.03	37.96	39.29	39.87	41.71	43.50	39.52	51.59	47.92	44.11
CLT	19.06	17.49	17.18	17.15	17.88	18.37	17.37	18.82	16.63	21.26	19.94	18.83
ILT	0.37	0.35	0.33	0.33	0.35	0.34	0.33	0.33	0.35	0.34	0.33	0.31
AP	0.06	0.06	0.05	0.08	0.04	0.05	0.07	0.05	0.06	0.08	0.06	0.04
PL	0.18	0.18	0.17	0.20	0.19	0.16	0.19	0.18	0.19	0.17	0.19	0.21
WSLT	0.99	0.89	0.88	1.03	0.77	0.88	0.80	0.81	0.77	0.75	0.86	0.86
GP	1.67	1.44	1.59	1.47	1.52	1.73	1.47	1.71	1.69	1.71	1.86	2.34
CRM	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
BPL	2.22	2.12	2.18	2.17	2.33	1.79	1.96	2.15	1.76	2.04	1.89	1.78
Sub-Total (LT)	66.90	60.40	62.43	60.41	62.39	63.21	63.92	67.57	60.98	77.96	73.07	68.48
DHT	3.16	2.59	2.42	3.15	2.85	2.55	3.14	3.28	2.87	2.75	2.21	2.43
WSHT	5.88	5.81	5.13	5.36	5.04	5.18	5.46	5.19	5.68	6.02	5.67	5.89
BS	8.36	7.18	7.38	7.77	7.21	7.29	8.55	8.98	10.78	12.52	10.87	10.05
CHT	4.27	4.28	4.17	4.80	4.37	4.25	4.85	4.70	5.08	5.47	4.90	4.92
IHT	7.77	7.47	7.55	6.56	7.64	6.90	8.22	6.83	6.74	7.78	10.05	8.10
FAHT	2.72	3.30	4.19	3.03	2.84	2.89	2.49	2.80	2.20	2.98	2.78	3.06
Sub-Total (HT)	32.16	30.63	30.83	30.67	29.94	29.06	32.71	31.79	33.36	37.51	36.48	34.45
IEHT	14.15	24.54	27.65	24.89	26.95	18.19	27.93	12.50	13.49	23.46	15.62	22.27
FAEHT	32.56	52.88	51.99	44.18	46.72	43.72	37.24	38.05	40.88	44.68	22.66	45.15
Sub-Total (EHT)	46.72	77.42	79.63	69.07	73.67	61.91	65.17	50.55	54.38	68.14	38.28	67.41
EV Charging Station	0.97	1.00	0.97	1.12	1.12	1.08	1.12	1.08	1.12	1.12	1.04	1.12
Distribution Franchisee	11.27	11.03	13.83	15.35	15.17	15.00	14.23	11.60	13.32	14.05	12.72	11.53
Grand Total	158.02	180.48	187.69	176.61	182.28	170.26	177.14	162.59	163.15	198.77	161.60	182.99

5. PAST PERFORMANCE IN TERMS OF TECHNICAL LOSSES AND PROJECTION OF LOSS FOR FIFTH CONTROL PERIOD

MePDCL would like to submit that the Hon'ble Commission has approved the T&D Losses for the fourth control period i.e., 2024-25 to FY 2026-27 as under:

Table 20 T&D Loss Trajectory Approved for Fourth Control Period

Particular	FY 2024-25	FY 2025-26	FY 2026-27
T&D Losses Approved	17.00%	16.50%	16.00%

Against the approved figure the actual achievement in the first two years of the control period has been as under:

Table 21 Actual T&D Losses till 2025-26

Particular	FY 2024-25	FY 2025-26	FY 2026-27
T&D Losses Actual	16.60%	14.81%	—

MePDCL would like to submit that the loss trajectory approved by the Hon'ble Commission in the fourth control period was based on the target set under the RDSS scheme. Though MePDCL has been able to achieve the targets for the first two years however, the Loss Reduction works under RDSS are still under progress and is expected to be completed in FY 2027-28. Further, though the sunset date of the RDSS scheme has been extended to March 2028, no new loss trajectory has been provided by Ministry of Power and the targets set under RDSS scheme were till FY 2024-25 only.

However, keeping in mind that the implementation of the loss reduction works will help in reducing the T&D losses gradually, MePDCL would like to propose the T&D losses and collection efficiency for the fifth control period as under:

Table 22 Proposed Trajectory of T&D Losses and Collection Efficiency for Fifth Control Period

Particular	Capitalization 2027-28	Capitalization 2028-29	Capitalization 2029-30	Capitalization 2030-31	Capitalization 2031-32
T&D Losses	15.50%	15.50%	15.00%	15.00%	14.50%
Collection Efficiency	99.75%	99.75%	99.75%	99.75%	99.75%

6. POWER PROCUREMENT PLAN FOR FIFTH CONTROL PERIOD

MePDCL would like to submit that the State is having allocation from the Central Generating Stations owned by NTPC, NEEPCO, NHPC and OTPC as well as from State Generating Stations

owned and operated by Meghalaya Power Generation Corporation Limited. The details of allocation are tabulated below:

Table 23 Existing Allocation of Power from Various Generating Stations

Name of Generating Station	Installed Capacity (MW)	Allocation to Meghalaya (MW)
MePGCL		
Umiam -I	36.00	36.00
Umiam -II	20.00	20.00
Umiam -III	66.00	66.00*
Umiam -IV	60.00	60.00
MLHEP	126.00	126.00
Sonapani	1.50	1.50
New Umtru	50.00	50.00
Ganol	22.50	22.50
Lakroh	1.50	1.50
NEEPCO		
Kopili	200.00	34.79
Kopili-Ext	25.00	3.42
Khandong	50.00	8.45
Ranganadi	405.00	46.60
Doyang	75.00	8.59
AGBPP	291.00	34.37
AGTPP CC	135.00	17.06
Pare	110.00	14.67
Kameng	600.00	15.00
NHPC		
Loktak	105	13.00
Subansiri	2000	49.41#
NTPC		
Bongaigaon TPS	750	88
OTPC		
Pallatana	726	78.99@

* The existing capacity of the Umiam Stage III is expected to increase by 6 MW after completion of RMU.

The Subansiri Project of the NHPC consists of 8 units out of which 4 have been commissioned and the balance 4 are expected to be commissioned by end of current financial year hence from FY 2027-28 entire allocation of 49.41 MW has been considered.

@ The allocation from OTPC is 78.99 MW however due to availability of the Gas the Station is running at a reduced capacity and the allocation of Meghalaya based on reduced capacity is around 56 MW.

6.1 UPCOMING PROJECTS

MePDCL would like to submit that apart from allocations shown in the table above certain new upcoming projects have been considered for estimating the power availability for fifth control period.

a. Small Hydro Projects within State:

MePGCL would like to submit that the Government of Meghalaya has allotted two small hydro projects i.e., Umran Small Hydro Project with capacity of 13.5 MW and Nongummer Small Hydro Project with capacity 24 MW. The implementation agreement for both the projects have been signed. The corporation is in the process of signing PPA with for these two projects for 30% of the installed capacity of each project.

The State will also be entitled for 13% free power from each of the two generating stations. Since, the developer has agreed for a generic tariff, the power generation from these stations has been considered at a CUF of 45% net of the free power provided to State.

The energy to be procured from these stations and the free power has been projected based on the computation as below:

Umran Small Hydro Power Project

Capacity 13.5 MW

CUF- 45%

Gross Generation (MU) = $(13.5 * 1000 * 45 * 8760) / 10^6 = 53.22$ MU (Annually)

Net Generation (MU) (Auxiliary Consumption @1%) = $53.22 * (1 - 1\%) = 52.68$

Free Power to Host State = $52.68 * 12\%$ (Only 12% has been considered of net generation as 1% would be provided in form of LADF = 6.32 MU

Procurement by MePDCL – Gross Generation -13% Free power* 30% = 13.89 MU.

Nongummer Small Hydro Power Project

Capacity 24 MW

CUF- 45%

Gross Generation (MU) = $(24 * 1000 * 45 * 8760) / 10^6 = 94.61$ MU (Annually)

Net Generation (MU) (Auxiliary Consumption @1%) = $94.61 \times (1-1\%) = 93.66$

Free Power to Host State = $93.66 \times 12\%$ (Only 12% has been considered of net generation as 1% would be provided in form of LADF = 11.24 MU

Procurement by MePDCL – Gross Generation -13% Free power* 30% = 24.69 MU.

150 MW Solar Plus BESS Project from SJVN

Meghalaya Power Distribution Corporation is also in the process of finalizing the arrangement of power purchase from 150 MW Solar Plus BESS Project through SJVN. The project is expected to be commissioned by June 2028 and hence the power procurement from this Station has been considered from July 2028. The estimated generation from the Solar is 362 MU annually while the estimated generation from BESS is 135 MU annually. Thus the total expected generation from the project is 497 MU on annual basis which has been considered from FY 2029-30 onwards. For FY 2028-29 since the project would be commissioned in June 2028, the power availability from the project has been considered as 353.78 MU only.

Allocation of 50 MW Thermal Power from APDCL

Meghalaya Power Distribution Corporation Limited following the recommendations provided in the Meghalaya Resource Adequacy Plan prepared by Central Electricity Authority has given in principle consent to APDCL for an allocation of 50 MW thermal power projects from the projects allocated by APDCL through competitive bidding process. The projects are expected to be commissioned in FY 2030-31 as informed by APDCL and hence the power procurement from this allocation has been considered from 2031-32 @ 85% Plant Load Factor.

Riangdo Small Hydro Project

Riangdo Small Hydro Project which was earlier conceptualized by MePGCL for 3 MW has been re-engineered to 6 MW and the construction is under progress. As per the latest report submitted by MePGCL, the progress is 37% and the project is expected to be commissioned by 2029-30. The annual design energy of the project is expected to 28 MU annually. Since, the entire energy from the project is to be sold to MePDCL, the procurement of 28 MU has been considered from FY 2029-20

Methodology for Estimation of Power Procurement from Existing Stations

Procurement from Hydro Generating Stations has been considered as the design energy of the project.

Procurement from thermal generating stations has been considered as the average power procured from these stations in last three years except Bongaigaon and OTPC where the average has been considered for two years.

Procurement from New Generating Stations has been considered as per the methodology explained in earlier section.

Based on the above the annual procurement without short-term procurement is projected as under:

Table 24 Power Procurement Plan from Long Term Sources for Fifth Control Period

Name of Generating Station	2027-28	2028-29	2029-30	2030-31	2031-32
Within the State					
MePGCL					
Umiam -I	116.00	116.00	116.00	116.00	116.00
Umiam -II	46.00	46.00	46.00	46.00	46.00
Umiam -III	152.90	152.90	152.90	152.90	152.90
Umiam -IV	207.00	207.00	207.00	207.00	207.00
MLHEP	486.00	486.00	486.00	486.00	486.00
Sonapani	5.00	5.00	5.00	5.00	5.00
New Umtru	235.00	235.00	235.00	235.00	235.00
Ganol	88.70	88.70	88.70	88.70	88.70
Lakroh	11.00	11.00	11.00	11.00	11.00
Riangdo	0.00	0.00	28.00	28.00	28.00
Total MePGCL	1347.60	1347.60	1375.60	1375.60	1375.60
Private Developers					
Nongummer SHP	0.00	0.00	0.00	24.69	24.69
Umran SHP	0.00	0.00	0.00	13.89	13.89
Free Power from Private Developers	0.00	0.00	0.00	17.56	17.56
Total Private	0	0	0	56.14	56.14
Total Within State	1347.60	1347.60	1375.60	1431.74	1431.74
Out Side State					
NEEPCO					
Kopili	106.82	106.82	106.82	106.82	106.82
Kopili-Ext	10.12	10.12	10.12	10.12	10.12
Khandong	26.82	26.82	26.82	26.82	26.82

Name of Generating Station	2027-28	2028-29	2029-30	2030-31	2031-32
Ranganadi	162.88	162.88	162.88	162.88	162.88
Doyang	19.76	19.76	19.76	19.76	19.76
AGBPP	103.80	103.80	103.80	103.80	103.80
AGTPP CC	50.81	50.81	50.81	50.81	50.81
Pare	71.03	71.03	71.03	71.03	71.03
Kameng	58.93	58.93	58.93	58.93	58.93
Free Power from NEEPCO	78.19	78.19	78.19	78.19	78.19
NHPC					
Loktak	140.78	140.78	140.78	140.78	140.78
Subansiri	183.35	183.35	183.35	183.35	183.35
NTPC					
Bongaigaon TPS	386.27	386.27	386.27	386.27	386.27
OTPC					
Pallatana	384.14	384.14	384.14	384.14	384.14
New Proposed					
Thermal Allocation from Assam	0.00	0.00	0.00	0.00	372.30
Solar Plus BESS	0.00	353.78	497.00	497.00	497.00
Total Outside the State	1783.69	2059.28	2202.50	2202.50	2574.80
Total Procurement	3131.29	3406.87	3578.10	3634.24	4006.54

6.2 ESTIMATION OF POWER REQUIRED FROM SHORT TERM SOURCES AND SURPLUS POWER AVAILABLE

Meghalaya Power Distribution Corporation Limited would like to submit that apart from the power procured from the long term sources, there would be requirement of power from short term sources. However, the same cannot be computed on annual basis. Hence, the requirement and availability of power from long term sources has been compared on monthly basis.

To this the power procured from each of the station one monthly basis has been converted into percentage as the total power procured from the particular station. This percentage has been then multiplied with the power projected to be procured from the station during the fifth control period to get the monthly power availability. Further, the power procured from the central generating stations/ stations outside the state has been reduced by the auxiliary consumption and inter-state transmission losses. For the estimation purpose the actual

transmission losses as declared by POSOCO during FY 2025-26 has been used which comes out to be 3.87%.

The power estimated to be procured from generating stations within the State has also been converted into monthly projection using the same methodology as above.

Further, the Stations which have not been commissioned and are projected to be commissioned during the course of the fifth control period, the projected availability has been converted into monthly availability using the average percentage of hydro and thermal stations.

The power availability in terms of percentage of total power from the generating station is tabulated below:

Table 25 Availability of Power as Percentage from Solar Plus BESS Project

Month	Solar	BESS
Apr	10.91%	8.22%
May	11.45%	8.49%
Jun	7.91%	8.22%
Jul	5.45%	8.49%
Aug	5.93%	8.49%
Sept	7.10%	8.22%
Oct	8.66%	8.49%
Nov	7.71%	8.22%
Dec	7.38%	8.49%
Jan	8.14%	8.49%
Feb	8.51%	7.67%
Mar	10.85%	8.49%

Table 26 Availability of Power as Percentage from New Hydro and Thermal Generating Stations

	Hydro	Thermal
Apr	5%	7%
May	9%	8%
Jun	14%	7%
Jul	15%	8%
Aug	15%	9%
Sept	12%	9%
Oct	10%	9%
Nov	5%	9%
Dec	4%	9%
Jan	4%	9%
Feb	3%	7%
Mar	4%	9%
Total		

The availability of power from the existing generating stations in terms of percentage of total power procurement from the respective station is tabulated below:

Table 27 Availability of Power as Percentage from Existing Hydro and Thermal Generating Stations

Month	Loktak	Kopili I	Kopili Ext	Khandong	Ranganadi	Doyang	AGBPP	AGTCPP	Pare	Kameng	Bongaigaon	Pallatana	MePGCL
Apr	2%	3%	5%	8%	6%	1%	9%	9%	6%	4%	6%	7%	6%
May	3%	6%	8%	6%	9%	3%	10%	10%	9%	7%	8%	8%	9%
Jun	8%	9%	12%	9%	14%	8%	8%	9%	14%	11%	9%	6%	15%
Jul	12%	10%	12%	11%	14%	20%	9%	10%	15%	14%	9%	8%	16%
Aug	14%	11%	12%	14%	15%	23%	8%	8%	15%	14%	8%	9%	15%
Sept	14%	15%	12%	17%	12%	20%	9%	9%	12%	12%	10%	9%	12%
Oct	13%	16%	12%	17%	11%	10%	7%	8%	12%	11%	10%	9%	10%
Nov	11%	7%	7%	7%	5%	4%	8%	8%	6%	8%	11%	9%	4%
Dec	9%	4%	8%	5%	4%	4%	8%	8%	4%	5%	8%	9%	4%
Jan	7%	7%	7%	2%	2%	3%	8%	8%	3%	4%	8%	9%	4%
Feb	4%	6%	3%	1%	2%	2%	7%	7%	2%	4%	6%	8%	3%
Mar	3%	7%	2%	2%	5%	2%	9%	7%	4%	5%	8%	9%	4%

Based on the percentages in the tables above the monthly availability of power in terms of MU have been computed for all the generating stations.

For the purpose of the requirement of power, the monthly sales as computed in the respective head above has been grossed up with the projected distribution losses.

The difference of the power available at DISCOM periphery and the power required at DISCOM periphery has been computed to assess the month wise availability of surplus power and requirement of power to be bought from short term sources such as open market.

The monthly estimations for each year of the control period is tabulated below.

An excel sheet with detailed computation is being submitted with the Petition for the purpose clarity.

Table 28 Estimation of Surplus Power and Short Term Procurement for FY 2027-28

Particular	Apr-27	May-27	Jun-27	Jul-27	Aug-27	Sep-27	Oct-27	Nov-27	Dec-27	Jan-28	Feb-28	Mar-28
Availability from Thermal	62.67	76.36	70.66	78.74	79.16	85.08	84.91	85.17	79.98	77.67	65.01	79.59
Auxiliary Consumption	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
Net Generation	57.03	69.49	64.30	71.66	72.04	77.43	77.27	77.50	72.78	70.68	59.15	72.43
Availability from Hydro and RE	37.91	60.81	97.92	113.33	119.62	115.79	106.74	58.11	42.19	39.06	29.67	37.52
Auxiliary Consumption	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Net Availability Hydro	37.53	60.20	96.94	112.19	118.42	114.64	105.68	57.53	41.77	38.67	29.37	37.15
Total Net Availability from CGS	94.57	129.69	161.24	183.85	190.46	192.06	182.95	135.04	114.55	109.35	88.52	109.57
Inter-State Transmission Losses	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%
Power Available from CGS at State Periphery	90.91	124.67	155.00	176.73	183.08	184.63	175.87	129.81	110.12	105.12	85.10	105.33
Inter-State Generation from MePGCL	78.66	126.30	202.71	209.80	201.60	160.69	128.05	54.95	47.85	50.60	39.04	47.35
Auxiliary Consumption MePGCL	1.10	1.76	2.83	2.93	2.81	2.24	1.79	0.77	0.67	0.71	0.54	0.66
Intra State Generation from Private Developers	0	0	0	0	0	0	0	0	0	0	0	0
Auxiliary Consumption Private Developers	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Net Generation from Private Developers	0	0	0	0	0	0	0	0	0	0	0	0
Free Power From Private Developers	0	0	0	0	0	0	0	0	0	0	0	0
Net Intra-State Generation	77.56	124.53	199.88	206.87	198.79	158.44	126.27	54.18	47.18	49.90	38.49	46.69
Intra-State Transmission Losses	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Power Available at DISCOM Periphery	163.41	241.73	344.24	372.09	370.41	332.78	293.07	178.48	152.58	150.37	119.88	147.46
Projected Sales	158.02	180.48	187.69	176.61	182.28	170.26	177.14	162.59	163.15	198.77	161.60	182.99
Projected Distribution Loss	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Requirement at DISCOM Periphery	187.01	213.58	222.12	209.01	215.72	201.49	209.64	192.42	193.08	235.23	191.24	216.56
Surplus/ Deficit	-23.59	28.14	122.12	163.09	154.69	131.29	83.44	-13.94	-40.50	-84.87	-71.36	-69.10

Surplus Power (MU)	682.76
Short Term Procurement (MU)	303.35

Table 29 Estimation of Surplus Power and Short Term Procurement for FY 2028-29

Particular	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29
Availability from Thermal	62.67	76.36	70.66	78.74	79.16	85.08	84.91	85.17	79.98	77.67	65.01	79.59
Auxiliary Consumption	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
Net Generation	57.03	69.49	64.30	71.66	72.04	77.43	77.27	77.50	72.78	70.68	59.15	72.43
Availability from Hydro and RE	37.91	60.81	97.92	144.53	152.54	152.59	149.57	97.12	80.36	79.99	70.84	88.26
Auxiliary Consumption	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Net Availability Hydro	37.53	60.20	96.94	143.09	151.02	151.06	148.07	96.15	79.56	79.19	70.13	87.38
Total Net Availability from CGS	94.57	129.69	161.24	214.74	223.05	228.49	225.35	173.65	152.34	149.87	129.28	159.81
Inter-State Transmission Losses	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%
Power Available from CGS at State Periphery	90.91	124.67	155.00	206.43	214.42	219.65	216.62	166.93	146.45	144.07	124.28	153.62
Inter-State Generation from MePGCL	78.66	126.30	202.71	209.80	201.60	160.69	128.05	54.95	47.85	50.60	39.04	47.35
Auxiliary Consumption MePGCL	1.10	1.76	2.83	2.93	2.81	2.24	1.79	0.77	0.67	0.71	0.54	0.66
Intra State Generation from Private Developers	0	0	0	0	0	0	0	0	0	0	0	0
Auxiliary Consumption Private Developers	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Net Generation from Private Developers	0	0	0	0	0	0	0	0	0	0	0	0
Free Power From Private Developers	0	0	0	0	0	0	0	0	0	0	0	0
Net Intra-State Generation	77.56	124.53	199.88	206.87	198.79	158.44	126.27	54.18	47.18	49.90	38.49	46.69
Intra-State Transmission Losses	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%	2.90%
Power Available at DISCOM Periphery	163.58	241.98	344.59	401.32	401.22	367.13	332.95	214.71	188.01	188.34	158.05	194.50
Projected Sales	144.26	161.24	168.45	159.37	164.54	153.58	162.86	149.88	149.21	182.14	151.84	167.29
Projected Distribution Loss	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Requirement at DISCOM Periphery	170.73	190.82	199.35	188.61	194.72	181.75	192.73	177.38	176.58	215.55	179.69	197.98
Surplus/ Deficit	-7.15	51.16	145.25	212.71	206.50	185.38	140.22	37.33	11.43	-27.21	-21.64	-3.47

Surplus Power (MU)	989.97
Short Term Procurement (MU)	59.47

Table 30 Estimation of Surplus Power and Short Term Procurement for FY 2029-30

Particular	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29
Availability from Thermal	62.67	76.36	70.66	78.74	79.16	85.08	84.91	85.17	79.98	77.67	65.01	79.59
Auxiliary Consumption	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
Net Generation	57.03	69.49	64.30	71.66	72.04	77.43	77.27	77.50	72.78	70.68	59.15	72.43
Availability from Hydro and RE	88.51	113.71	137.64	144.53	152.54	152.59	149.57	97.12	80.36	79.99	70.84	88.26
Auxiliary Consumption	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Net Availability Hydro	87.62	112.57	136.27	143.09	151.02	151.06	148.07	96.15	79.56	79.19	70.13	87.38
Total Net Availability from CGS	144.66	182.06	200.57	214.74	223.05	228.49	225.35	173.65	152.34	149.87	129.28	159.81
Inter-State Transmission Losses	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%
Power Available from CGS at State Periphery	139.06	175.02	192.81	206.43	214.42	219.65	216.62	166.93	146.45	144.07	124.28	153.62
Inter-State Generation from MePGCL	80.29	128.92	206.93	214.16	205.79	164.03	130.72	56.09	48.84	51.65	39.85	48.33
Auxiliary Consumption MePGCL	1.12	1.80	2.89	2.99	2.87	2.29	1.82	0.78	0.68	0.72	0.56	0.67
Intra State Generation from Private Developers	0	0	0	0	0	0	0	0	0	0	0	0
Auxiliary Consumption Private Developers	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Net Generation from Private Developers	0	0	0	0	0	0	0	0	0	0	0	0
Free Power From Private Developers	0	0	0	0	0	0	0	0	0	0	0	0
Net Intra-State Generation	79.17	127.12	204.04	211.17	202.92	161.74	128.89	55.31	48.16	50.93	39.29	47.66
Intra-State Transmission Losses	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Power Available at DISCOM Periphery	212.77	294.59	386.92	407.16	406.90	371.85	336.88	216.69	189.74	190.13	159.48	196.25
Projected Sales	148.57	167.32	174.45	164.70	170.05	158.72	167.70	154.18	153.94	187.50	154.90	172.33
Projected Distribution Loss	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%
Requirement at DISCOM Periphery	174.79	196.84	205.23	193.77	200.06	186.73	197.29	181.39	181.10	220.59	182.24	202.74
Surplus/ Deficit	37.98	97.74	181.69	213.39	206.84	185.12	139.58	35.30	8.64	-30.46	-22.76	-6.49

Surplus Power (MU)	1106.29
Short Term Procurement (MU)	59.71

Table 31 Estimation of Surplus Power and Short Term Procurement for FY 2030-31

Particular	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29
Availability from Thermal	62.67	76.36	70.66	78.74	79.16	85.08	84.91	85.17	79.98	77.67	65.01	79.59
Auxiliary Consumption	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
Net Generation	57.03	69.49	64.30	71.66	72.04	77.43	77.27	77.50	72.78	70.68	59.15	72.43
Availability from Hydro and RE	88.51	113.71	137.64	144.53	152.54	152.59	149.57	97.12	80.36	79.99	70.84	88.26
Auxiliary Consumption	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Net Availability Hydro	87.62	112.57	136.27	143.09	151.02	151.06	148.07	96.15	79.56	79.19	70.13	87.38
Total Net Availability from CGS	144.66	182.06	200.57	214.74	223.05	228.49	225.35	173.65	152.34	149.87	129.28	159.81
Inter-State Transmission Losses	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%
Power Available from CGS at State Periphery	139.06	175.02	192.81	206.43	214.42	219.65	216.62	166.93	146.45	144.07	124.28	153.62
Inter-State Generation from MePGCL	80.29	128.92	206.93	214.16	205.79	164.03	130.72	56.09	48.84	51.65	39.85	48.33
Auxiliary Consumption MePGCL	1.12	1.80	2.89	2.99	2.87	2.29	1.82	0.78	0.68	0.72	0.56	0.67
Intra State Generation from Private Developers	2.07	3.33	5.31	5.75	5.69	4.78	4.03	1.95	1.55	1.47	1.15	1.49
Auxiliary Consumption Private Developers	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Net Generation from Private Developers	2.05	3.29	5.26	5.69	5.64	4.74	3.99	1.93	1.53	1.46	1.14	1.47
Free Power From Private Developers	0.94	1.51	2.42	2.62	2.59	2.18	1.83	0.89	0.70	0.67	0.52	0.68
Net Intra-State Generation	82.17	131.93	211.72	219.48	211.14	168.65	134.71	58.13	50.39	53.06	40.95	49.81
Intra-State Transmission Losses	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Power Available at DISCOM Periphery	215.70	299.28	394.41	415.26	414.92	378.59	342.55	219.44	191.92	192.21	161.10	198.35
Projected Sales	152.89	173.41	180.45	170.14	175.68	163.99	172.19	158.15	158.32	192.84	157.95	177.36
Projected Distribution Loss	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%
Requirement at DISCOM Periphery	179.87	204.01	212.30	200.17	206.69	192.93	202.58	186.06	186.26	226.87	185.83	208.65
Surplus/ Deficit	35.83	95.27	182.12	215.09	208.24	185.66	139.97	33.38	5.66	-34.67	-24.72	-10.31

Surplus Power (MU)	1101.21
Short Term Procurement (MU)	69.70

Table 32 Estimation of Surplus Power and Short Term Procurement for FY 2031-32

Particular	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28	Jan-29	Feb-29	Mar-29
Availability from Thermal	89.02	107.40	98.03	110.01	111.40	118.71	117.93	117.84	112.65	109.59	92.64	112.09
Auxiliary Consumption	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
Net Generation	81.01	97.73	89.21	100.11	101.37	108.02	107.32	107.24	102.51	99.73	84.31	102.00
Availability from Hydro and RE	88.51	113.71	137.64	144.53	152.54	152.59	149.57	97.12	80.36	79.99	70.84	88.26
Auxiliary Consumption	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Net Availability Hydro	87.62	112.57	136.27	143.09	151.02	151.06	148.07	96.15	79.56	79.19	70.13	87.38
Total Net Availability from CGS	168.63	210.31	225.48	243.19	252.39	259.09	255.39	203.39	182.07	178.92	154.43	189.38
Inter-State Transmission Losses	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%	3.87%
Power Available from CGS at State Periphery	162.11	202.17	216.75	233.78	242.62	249.06	245.51	195.51	175.02	172.00	148.46	182.05
Inter-State Generation from MePGCL	80.29	128.92	206.93	214.16	205.79	164.03	130.72	56.09	48.84	51.65	39.85	48.33
Auxiliary Consumption MePGCL	1.12	1.80	2.89	2.99	2.87	2.29	1.82	0.78	0.68	0.72	0.56	0.67
Intra State Generation from Private Developers	2.07	3.33	5.31	5.75	5.69	4.78	4.03	1.95	1.55	1.47	1.15	1.49
Auxiliary Consumption Private Developers	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Net Generation from Private Developers	2.05	3.29	5.26	5.69	5.64	4.74	3.99	1.93	1.53	1.46	1.14	1.47
Free Power From Private Developers	0.94	1.51	2.42	2.62	2.59	2.18	1.83	0.89	0.70	0.67	0.52	0.68
Net Intra-State Generation	82.17	131.93	211.72	219.48	211.14	168.65	134.71	58.13	50.39	53.06	40.95	49.81
Intra-State Transmission Losses	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%
Power Available at DISCOM Periphery	238.78	326.58	418.83	443.06	443.56	408.31	371.67	247.94	220.35	219.99	185.15	226.64
Projected Sales	158.02	180.48	187.69	176.61	182.28	170.26	177.14	162.59	163.15	198.77	161.60	182.99
Projected Distribution Loss	14.50%	14.50%	14.50%	14.50%	14.50%	14.50%	14.50%	14.50%	14.50%	14.50%	14.50%	14.50%
Requirement at DISCOM Periphery	184.82	211.09	219.53	206.56	213.20	199.13	207.18	190.16	190.82	232.48	189.00	214.03
Surplus/ Deficit	53.96	115.50	199.30	236.50	230.36	209.18	164.48	57.77	29.53	-12.49	-3.85	12.62

Surplus Power (MU)	1309.19
Short Term Procurement (MU)	16.34

Based on the above computation the overall power procurement plan along with the power required to be procured from short term sources for the entire control period is tabulated below:

Table 33 Overall Power Procurement Plan for Fifth Control Period

Name of Generating Station	2027-28	2028-29	2029-30	2030-31	2031-32
Within the State					
MePGCL					
Umiam -I	116.00	116.00	116.00	116.00	116.00
Umiam -II	46.00	46.00	46.00	46.00	46.00
Umiam -III	152.90	152.90	152.90	152.90	152.90
Umiam -IV	207.00	207.00	207.00	207.00	207.00
MLHEP	486.00	486.00	486.00	486.00	486.00
Sonapani	5.00	5.00	5.00	5.00	5.00
New Umtru	235.00	235.00	235.00	235.00	235.00
Ganol	88.70	88.70	88.70	88.70	88.70
Lakroh	11.00	11.00	11.00	11.00	11.00
Riangdo	0.00	0.00	28.00	28.00	28.00
Total MePGCL	1347.60	1347.60	1375.60	1375.60	1375.60
Private Developers					
Nongummer SHP	0.00	0.00	0.00	24.69	24.69
Umran SHP	0.00	0.00	0.00	13.89	13.89
Free Power from Private Developers	0.00	0.00	0.00	17.56	17.56
Total Private	0	0	0	56.14	56.14
Total Within State	1347.60	1347.60	1375.60	1431.74	1431.74
Out Side State					
NEEPCO					
Kopili	106.82	106.82	106.82	106.82	106.82
Kopili-Ext	10.12	10.12	10.12	10.12	10.12
Khandong	26.82	26.82	26.82	26.82	26.82
Ranganadi	162.88	162.88	162.88	162.88	162.88
Doyang	19.76	19.76	19.76	19.76	19.76
AGBPP	103.80	103.80	103.80	103.80	103.80
AGTPP CC	50.81	50.81	50.81	50.81	50.81
Pare	71.03	71.03	71.03	71.03	71.03
Kameng	58.93	58.93	58.93	58.93	58.93
Free Power from NEEPCO	78.19	78.19	78.19	78.19	78.19
NHPC					
Loktak	140.78	140.78	140.78	140.78	140.78
Subansiri	183.35	183.35	183.35	183.35	183.35
NTPC					

Name of Generating Station	2027-28	2028-29	2029-30	2030-31	2031-32
Bongaigaon TPS	386.27	386.27	386.27	386.27	386.27
OTPC					
Pallatana	384.14	384.14	384.14	384.14	384.14
New Proposed					
Thermal Allocation from Assam	0.00	0.00	0.00	0.00	372.30
Solar Plus BESS	0.00	353.78	497.00	497.00	497.00
Total Outside the State	1783.69	2059.28	2202.50	2202.50	2574.80
Short -Term Power Procurement	303.35	59.47	59.71	69.70	16.34
Total Procurement	3434.64	3466.35	3637.80	3703.94	4022.88

7. CAPITAL INVESTMENT PLAN

Meghalaya Power Distribution Corporation Limited would like to submit that the capital investment plan has been prepared keeping in view various long-term needs and areas for capital expenditure as highlighted below:

- Strengthening of Aging Network
- Evacuation of Power from upcoming MePTCL Grid Substations
- Supply of Power to new load centres
- Increasing Distribution Network capacity for increased load
- Increased Quality and Reliability of Power
- Appropriate Loading of Distribution Network
- Increased Control and Protection for Grid Stability
- Loss Reduction
- Outage Reduction

The Capital Investment Plan includes the details of ongoing schemes, their tentative completion, funding pattern and the expected capitalization during the control period.

MePDCL would like to submit that in the instant Petition only those capital investments have been included which have already been identified and the DPRs have been prepared. However, MePDCL would like to submit that the distribution business is complex and need for capital expenditure might arise during course of the control period which might not be included in this Petition. Further, the distribution infrastructure also depends on the scheme of the Centre and State Government. Hence, MePDCL craves leave of the Hon'ble Commission to claim any such capital expenditure which has not been included in the instant Petition as and when it is taken up with proper justification.

7.1 ONGOING SCHEMES

MePDCL would like to submit that it is in the process of implementing some of the schemes the details which are expected to be in the fifth control period. These schemes have been included in the instant Petition under Capital Investment Plan.

1. Revamped Distribution Sector Scheme- Loss Reduction Works

The government of India has approved the Revamped Distribution Sector Scheme (RDSS) to help DISCOMs improve their operational efficiencies and financial sustainability by providing result-linked financial assistance to DISCOMs to strengthen supply infrastructure based on meeting pre-qualifying criteria and achieving basic minimum benchmarks.

The scheme aims to meet the following objectives:

- Reduction of AT&C losses to Pan-India levels of 12-15%.
- Reduction of ACS-ARR gap to zero by 2024-25.
- Improvement in the quality, reliability and affordability of power supply to consumers through a financially sustainable and operationally efficient distribution sector.

The Scheme has two broad components i.e., Smart Metering at consumer end along with the Smart metering of feeders and Distribution Transformers and Distribution Loss Reduction Works. MePDCL would like to submit that the Smart Metering component has to be undertaken under the TOTEX mode and hence there would no capitalization against this component.

The loss reduction works or the Distribution Infrastructure has to be done through capital expenditure funded through grants and the details of the scheme are as under:

Table 34 Details of RDSS Scheme- Sanction and Funding Pattern

Name of Component	Sanctioned Amount (Rs. Cr.)	Awarded Cost (Rs. Cr.)	Funding Pattern	Grants from Central Government (Rs. Cr)	Grants from State Government (Rs. Cr.)
Loss Reduction Works	764.82	904.05	90% of Sanctioned Cost from GOI 10% Counter Funding From State Government	688.39	76.48

However, since the awarded cost was higher than the sanctioned cost there was a gap of around Rs. 140 Crore which was required to funded from own resources. However, MePDCL has approached the State Government to take over the balance fund requirement so that there is no burden on the end consumers and the Government of Meghalaya has approved the same. Thus the revised funding pattern based on the awarded cost is as under:

Table 35 Revised Funding Pattern of LR Works

Name of Component	Sanctioned Amount (Rs. Cr.)	Awarded Cost (Rs. Cr.)	Grants from Central Government (Rs. Cr)	Grants from State Government (Rs. Cr.)
Loss Reduction Works	764.82	904.05	688.39	216.00

The physical works involved under the LR works along with the completion till 31st March 2026 is tabulated below:

Table 36 Current Status of LR Works (Physical Progress)

S/No.	A. Distribution Infrastructure Works	UOM	Scope Quantity	Completed as on 31.03.2026	Balance
1	33 KV Reconductoring of lines	Ckm	244.85	31.35	213.50
2	11 KV Reconductoring of lines	Ckm	1137.19	238.45	898.74
3	LTABC Reconductoring	Km	2373.03	1514.30	858.73
4	New 11 KV Lines	Ckm	1091.12	446.50	644.62
5	LT to HT Conversion	Ckm	1926.03	76.95	1849.08
6	New LT AB Cable	km	1249.81	710.60	539.21
7	63 KVA Distribution Transformer	No.	1234.00	578.00	656.00
8	100 KVA Distribution Transformer	No.	1354.00	675.00	679.00
9	250 KVA Distribution Transformer	No.	7.00	3.00	4.00

The amount of completed works is Rs. 339.92 Crore which and the capitalization till 31.03.2026 against this scheme is NIL. The amount against the completed works is expected to be capitalized in FY 2026-27. The value of the balance works is Rs. 564.42 Crore which is expected to be completed by FY 2027-28 and capitalized by FY 2028-29.

The projected physical progress during the fifth control period is tabulated below:

Table 37 Physical Targets of LR Works for Fifth Control Period

S/No.	A. Distribution Infrastructure Works	UOM	Scope Quantity	Balance as On 31.03.2026	FY 2026-27	FY 2027-28
1	33 KV Reconductoring of lines	Ckm	244.85	213.50	42.70	170.80
2	11 KV Reconductoring of lines	Ckm	1137.19	898.74	179.75	718.99
3	LTABC Reconductoring	Km	2373.03	858.73	171.75	686.98
4	New 11 KV Lines	Ckm	1091.12	644.62	128.92	515.70
5	LT to HT Conversion	Ckm	1926.03	1849.08	369.82	1479.26
6	New LT AB Cable	km	1249.81	539.21	107.84	431.37
7	63 KVA Distribution Transformer	No.	1234.00	656.00	131.00	525.00
8	100 KVA Distribution Transformer	No.	1354.00	679.00	136.00	543.00
9	250 KVA Distribution Transformer	No.	7.00	4.00	1.00	3.00

The details of capitalization in terms of amount for Fifth control period is tabulated below:

Table 38 Capitalization Pertaining to LR Works in Fifth Control Period

Name of the Scheme	Amount in Rs. Cr.				
	Capitalization FY 2027-28	Capitalization FY 2028-29	Capitalization FY 2029-30	Capitalization FY 2030-31	Capitalization FY 2031-32
RDSS (LR Works)	112.88	451.54	0.00	0.00	0.00

The detailed working is provided in the excel sheet Capital Investment Plan being submitted along with the Petition.

2. Revamped Distribution Sector Scheme- Additional Household Electrification Works

The Sanction for the Additional Household works under RDSS for Meghalaya was received on 06th March 2024 for Rs. 429.26 Crore. Subsequently proposal was put up before the Hon'ble Cabinet of Government of Meghalaya which accorded its approval on 12th March 2024. As per the sanction letter received from the REC, it was mandatory to submit the detail listing of all households (Habitation wise). Accordingly, survey was carried out and the number of un-electrified households increased from 50501 Nos to 55628 Nos and habitations also increased from 1939 to 2500. The survey was completed in June 2024.

The details of District wise villages and Households identified for the electrification are as under:

Table 39 District Wise Details of Households and Villages under AHHE

SL No.	Districts	Household	Villages/Habitations
1	East Khasi Hills	10032	426
2	Southwest Khasi Hills	3081	158
3	West Khasi Hills & Eastern West Khasi Hills	8817	552
4	Ri-Bhoi	6046	303
5	West Jaintia Hills	8123	222
6	East Jaintia Hills	4318	121
7	West Garo & Southwest Garo Hills	7766	342
8	East Garo & North Garo Hills	4557	252
9	South Garo Hills	1562	72
10	West Garo Hills	1326	52
Total		55628	2500

To cover all the households and villages in parallel the corporation has awarded the total scope into 12 packages. The details of these packages are as under:

Table 40 Package Wise Details of Households and Villages under AHHE

SL No.	Circle	Division	Packages	Household	Villages/Habitations
1	Shillong	Shillong (East+West+ Central)	Package-I	3401	91
2	Khasi Hills	East Khasi Hills Dist Division (EKHDD)	Package-II	6631	335
3		South Khasi Hills Dist Division(SKHDD)	Package-III	3081	158
4		West Khasi Hills Dist Division (WKHDD)	Package-IV	8817	552
5	Ri- Bhoi	Nongpoh Dist Division NDD+ Byrnihat (BDD)	Package-V	2147	135
6		Umiam Dist Division (UDD)	Package-VI	3899	168
7	JH	Jowai Rural Dist. Division (JRDD)	Package-VII	5612	129
8		Jowai Dist. Division (JDD)	Package-VIII	2511	93
9		Khliehriat Dist. Division (KDD)	Package-IX	4318	121
10	WGH	West Garo Hills Dist. Division (WGHDD)+South West Garo Hills Dist. Division (SWGHHDD)	Package-X	7766	342
11	EGH	East Garo Hills Dist. Division (EGHDD)	Package-XI	4557	252
12		South Garo Hills Dist. Division (SGHDD)	Package-XII	1562	72
13	Tura	Tura East Dist. Division(TEDD)+ Tura West Dist. Division (TWDD)+ Tura North Dist. Division (TNDD)	Package-XIII	1326	52
Total				55628	2500

*Package 13 and Package 10 have been merged together.

Apart from the household electrification, there will be an essential requirement of infrastructure addition and upgradation to provide new connection to 55628 households.

The details of infrastructure addition and upgradation under the 13 packages (now 12) is tabulated below:

Table 41 Total Scope of Physical Infrastructure Under AHHE

Sno.	Description	Unit	Total Scope
1	New 11KV Lines	CKM	1145
2	New DTs (25 KVA)	No.	527
3	New DTs (63KVA)	No.	786
4	New DTs (100KVA)	No.	194
5	New AB Cable -(3 Ph-4Wire)	KM	328
6	New AB Cable -(1 Ph-2-Wire)	KM	2961
7	New DT(250 KVA)	No.	16
8	Material for Providing Service Connection to Households.	No.	55628

It was proposed to award the total scope of work under Additional Household Electrification Works under RDSS in 13 packages to cover the entire the State. Accordingly, the Board of Directors of MePDCL accorded approval for tendering of 13 packages with an estimated cost of Rs. 472. 84 Crore on 22nd August 2024. After retendering few of the packages the awarded cost comes out to be Rs. 426.07 Crore which is within the Sanctioned Cost.

The details of package wise awarded quantity and amount is provided in the excel sheet Capital Investment Plan being submitted along with the Petition.

The details of Physical Progress under the Additional Household Works under RDSS during the fifth control period is as under:

Table 42 Projected Physical Progress Under AHHE

Description	Unit	Total Quantity in Scope	FY 2026-27	FY 2027-28
New 11KV Lines	CKM	1145	343.39	801.23
New DTs (25 KVA)	No.	527	159	370
New DTs (63KVA)	No.	786	236	551
New DTs (100KVA)	No.	194	58	136
New AB Cable -(3 Ph-4Wire)	KM	328	98.4	229.6
New AB Cable -(1 Ph-2-Wire)	KM	2961	888.3	2072.7
New DT(250 KVA)	No.	16	6	11
Material for Providing Service Connection to Households.	No.	55628	16688	38940

Based on the above the capitalization during the fourth control period is projected as under:

Table 43 Projected Capitalization in Rs. Cr. under AHHE in Fifth Control Period

Name of the Scheme	Amount in Rs. Cr.				
	Capitalization FY 2027-28	Capitalization FY 2028-29	Capitalization FY 2029-30	Capitalization FY 2030-31	Capitalization FY 2031-32
RDSS (AHHE Works)	128.01	298.30	0.00	0.00	0.00

3. ADB Distribution Improvement Program Meghalaya

The project proposal from the Govt. of Meghalaya for financial assistance from Asian Development Bank (ADB) for **Meghalaya Power Distribution Sector Improvement Project** was accorded approval by the Dept. of Economic Affairs (Fund Bank & ADB Division) & recommended by ADB in October 2020.

Approved Cost: USD 168 Million = INR 1240.51 Cr (1 USD = 73.84 INR). This include JFPR (Japan Fund for Poverty Reduction) Grant of USD 2 Million being executed by MNREDA.

- ADB Contribution (Loan) is 80% of USD 166 Million = USD 132.8 Million. Out of this Central Government Share for the State is 90% (i.e. USD 119.52 Million) and State Government is 10% (i.e. USD 13.28 Million)
- State Government 20% = USD 33.2 Million
- It may be mentioned that the total share towards counterpart funding is USD 46.48 Million i.e. USD (33.2+13.28= 46.48 Million)

The objective of the Project is

- To improve reliability and quality of power supply for distribution consumers in the State.
- Strengthen and modernize the power distribution network, reduce technical and commercial losses, and improve the power quality of the distribution network in Meghalaya State.
- Enhance the institutional capacity of Meghalaya Power Distribution Corporation Limited (MePDCL) by (i) supporting the preparation of a distribution sector road map and financial road map to improve MePDCL's planning capability, and financial performance and sustainability; (ii) introducing innovative components in project design, and (iii) building MePDCL's capacity to monitor project implementation, including the environmental and social impacts of the projects.

- iv. The project will also support pilot testing of gender and socially inclusive renewable mini grid energy systems, which have the potential for future replication.

To meet the objectives, the following components are being taken up in East Garo Hills Circle, West Garo Hills Circle & Central Circle (East & West Khasi Hills);

1. Installation of 24 Numbers of new 33/11 KV sub stations and Augmentation, Renovation, and Bay extension of 45 numbers of existing 33/11 KV sub stations.
 - The work is being executed under four (4) packages. The total awarded cost is ₹341.83 crore, inclusive of taxes. Four (4) packages were awarded under four (4) separate contracts, and four (4) contractors were engaged.
 - Due to non-performance by one contractor for one (1) package under East Garo Hills, namely M/s RKL, MePDCL terminated the contract and re-tendered the work. The new contractor was on-boarded on 19th May 2025..
2. Installation of new 33 KV & 11 KV Lines and re-conductoring, augmentation & replacement of existing 33 KV & 11 KV Lines.
 - The project scope was initially designed under two (2) packages. The total awarded cost is ₹596.56 crore, inclusive of taxes. Two (2) packages were awarded under two (2) separate contracts, and two (2) contractors were engaged.
 - Due to non-performance by one contractor for one (1) package under Khasi Hills (East & West), namely M/s Gupta Power Infrastructure Ltd., and consequent surrender of the assigned scope, MePDCL is proceeding with re-tendering of the de-scoped works.
3. Replacement of 1,80,000 numbers of existing consumer meters with Smart Meters along with Advance Metering Infrastructure & System Metering. Total awarded cost is Rs. 239.59 Crore inclusive of Taxes.
4. Consultancy Services for Project Implementation and Management Support. Awarded cost is Rs. 6.05 Crore.
5. Consultancy Services for Developing Distribution Master Plan. Awarded cost is Rs 8.96 Crore.

The Overall physical progress under this project is as under:

Table 44 Current Physical Progress under ADB Project

S No.	Work Description	Unit	Scope	Completed as on 31.03.2026
1	33/11kV New Substation Development	NOS	23	9
2	Augmentation /Upgradation of existing 33/11 Kv Substations	NOS	45	24
	Total for Substation work		68	33
3	New 33kV Single Circuit Line	CKM	424	150
4	New 11kV Single Circuit Line	CKM	218	105
5	Reconductoring of existing 33kV Line	CKM	205	147
6	Reconductoring of existing 11kV Line	CKM	157	98
7	Fault Passage Indicator	Nos	324	324
8	11Kv Poles Replacement	Nos	6305	6305
	Total for Distribution Line work		1004	7129
9	Installation of Consumer Smart Meter	Nos	195943	142740

Table 45 Physical Targets Under ADB Scheme

S No.	Work Description	Unit	Balance Scope	Target 2026-27	Target 2027-28
1	33/11kV New Substation Development	NOS	14	5	9
2	Augmentation /Upgradation of existing 33/11 Kv Substations	NOS	21	9	12
3	Total for Substation work		35	14	21
4	New 33kV Single Circuit Line	CKM	274	100	174
5	New 11kV Single Circuit Line	CKM	113	60	53
6	Reconductoring of existing 33kV Line	CKM	58	30	28
7	Reconductoring of existing 11kV Line	CKM	59	29	30
8	Fault Passage Indicator	Nos	0	0	0
9	11Kv Poles Replacement	Nos	0	0	0
	Total for Distribution Line work		504	219	285
10	Installation of Consumer Smart Meter	Nos	53203	23000	30203

Based on the physical progress projected above the capitalization under the scheme for the fifth control period is projected to be as under:

					Amount in Rs. Cr.
Name of the Scheme	Capitalization FY 2027-28	Capitalization FY 2028-29	Capitalization FY 2029-30	Capitalization FY 2030-31	Capitalization FY 2031-32
ADB DIP	182.41	254.16	0.00	0.00	0.00

**An amount of Rs. 268.85 Crore has been capitalized till FY 2025-26 and Rs. 295.62 Crore is expected to be capitalized in FY 2026-27*

4. Projected to be Constructed Under Special Assistance to States for Capital Investment (SASCI) Scheme.

In order to reduce the congestion and burden on existing sub-station and to improve the reliability and quality of power supply in Garo Hills Region, MePDCL has conceptualized construction of 7 nos. of new sub-stations in Garo Hills region. The proposal was put up before the Government of Meghalaya for funding under SASCI scheme which has been approved. The project is currently under progress and is expected to be completed in 2028-29.

The details of the sub-stations proposed for construction are as under;

Table 46 Details of Sub-Stations to Be Constructed under SASCI Scheme

SL No.	Package	Name of Districts	Locations	Unit	Qty	Capacity (MVA)	Sanctioned Cost (Rs in Lakh)
1	I	West Garo Hills	Tura Sericulture	No.	1	5	784.43
2		West Garo Hills	Tura SSB Land	No.	1	5	774.44
3		West Garo Hills	Dakopgre	No.	1	5	636.37
Sub Total					3	15	2195.24
1	II	West Garo Hills	Kherapara	No.	1	5	677
2		South Garo Hills	Karukhol	No.	1	5	738.88
Sub Total					2	10	1415.88
1	III	North Garo Hills	Bhaghabatta	No.	1	5	454.55
2		East Garo Hills	Cherangre	No.	1	5	755.15
Sub Total					2	10	1209.7
Grand Total					7	35	4820.82

Table 47 Physical Targets Under SASCI Scheme

S No.	Work Description	Unit	Balance Scope	Target 2026-27	Target 2027-28	Target 2028-29
1	Construction of 7 New 33/11 kV Sub-Stations under SASCI	NOS	7	1	4	2

Based on the physical progress above the capitalization during the fifth control period is tabulated below;

Table 48 Projected Capitalization under SASCI Scheme for Fifth Control Period

Name of the Scheme	Amount in Rs. Cr.				
	Capitalization FY 2027-28	Capitalization FY 2028-29	Capitalization FY 2029-30	Capitalization FY 2030-31	Capitalization FY 2031-32
SASCI	28.92	19.28	0.00	0.00	0.00

7.2 UPCOMING SCHEMES

1. Meghalaya Power Distribution Sector Strengthening Program

Meghalaya Power Distribution Corporation in order to further strengthen the distribution network has submitted the proposal for ABD like scheme to be funded under External Aided Projects to Government of Meghalaya for approval of 09th January 2026. Though the approval is yet to be received from the Government of Meghalaya, MePDCL has considered the same in the capital investment plan as it is funded through grants entirely. The total projected expenditure under the scheme is expected to be Rs. 540 Crore out of which 80% funding has been sought through ADB/ World Bank and 20% counterpart funding has been sought from Government of Meghalaya.

The Goal and Objectives of the proposed project are as under:

To Create a resilient 33/11kV distribution network in Ri Bhoi (Byrnihat) to ensure uninterrupted quality power, eliminate single-point blackout risks, reduce AT&C losses, and meet growing industrial demand.

Objectives:

- Improve supply reliability by converting radial to meshed/ring configuration.
- Reduce AT&C losses via reconductoring, metering, and energy accounting.
- Cater to load growth with new feeders, substations, and transformers.
- Renovate ageing infrastructure for safety and efficiency.

The tentative activities involved in the project are as under:

- | | |
|---------------------------------------|-------------|
| • Creation of New 33/11 Kv Substation | - 7 Nos |
| • Augmentation of 33/11 Kv Substation | -4 Nos. |
| • Creation of New 33 Kv Line | -316 Ckm |
| • R&M of 33 Kv Line | - 325Ckm |
| • Creation of New 11 Kv Line | -452.20 Ckm |
| • R&M of 11 Kv Line | -513Ckm |
| • New DT Works | -53 Nos |
| • DT Aug | -94 Nos. |
| • New LT Line | - 75.60 Ckm |
| • LT Aug | -202.10 Ckm |
| • LT Line Conversion | -5Ckm |

Outcomes of the Project

The expected benefits of the project are as under:

- Energy Security: Reduction in power outages and elimination of total blackout risks by reducing interruption.
- Revenue Protection: By reducing the Distribution & AT&C losses.
- Social Impact: Reliable power supply to Ri Bhoi and villages, improving quality of life and security.

The proposed capitalization under the scheme is as under:

Table 49 Projected Capitalization Under Meghalaya PDSP in Fifth Control Period

Name of the Scheme	Amount in Rs. Cr.				
	Capitalization FY 2027-28	Capitalization FY 2028-29	Capitalization FY 2029-30	Capitalization FY 2030-31	Capitalization FY 2031-32
Meghalaya PDSP	0.00	162.00	108.00	216.00	54.00

2. Re-engineering and augmentation of 33 KV Double Circuit Line from Mawprem to Rilbong and Rilbong to 33/11 KV Kench's Trace Sub-Station from ACSR Wolf to HTLC Copenhagen Conductors and Re-engineering and augmentation of 33 KV Single Circuit Line from 132 KV NEHU Sub-Station to 33 KV SE Falls Sub-Station from ACSR Wolf to HTLC Copenhagen Conductors

The proposed upgrade is essential to cater to the increasing load requirements, as the current infrastructure is nearing its operational limits. HTLS conductors offer better performance by allowing higher current transmission with reduced sag and lower thermal expansion. This enhancement will contribute to improved reliability and efficiency of Shillong's power supply system.

The proposed upgrade will also ensure the city is well-prepared for the upcoming **National Games**, and provide a reliable and efficient power supply system that meets the region's growing demands.

Objective of the Project:

- To upgrade the existing 33KV DC lines with HTLS Wolf conductors, increasing load capacity from 15–18 MW to 25–30 MW.
- Improving the infrastructure
- Improvement of Operational Efficiency
- Improvement of Reliability of Power

Estimated Cost and Funding Pattern

The estimated cost of the project is Rs. 14.91 Crore and 9.01 Crore for the two augmentations and the funding is proposed to be sought under SASCI however since the project is yet to be approved, in the instant Petition the funding is considered through own resources. However, MePDCL craves leave of the Hon'ble Commission to change the funding pattern from Equity to Grants once the project is approved by Government of Meghalaya under SASCI.

The project is expected to be completed in FY 2027-28 and accordingly the capitalization has been considered as under:

Table 50 Estimated Capitalization under Re-engineering Schemes in Fifth Control Period

Name of the Scheme	Amount in Rs. Cr.				
	Capitalization FY 2027-28	Capitalization FY 2028-29	Capitalization FY 2029-30	Capitalization FY 2030-31	Capitalization FY 2031-32
Re-engineering and augmentation of 33 KV Double Circuit Line from Mawprem to Rilbong and Riblong to 33/11 KV Kench's Trace Sub-Station from ACSR Wolf to HTLC Copenhagen Conductors	7.46	7.46	0.00	0.00	0.00
Re-engineering and augmentation of 33 KV Single Circuit Line from 132 KV NEHU	4.51	4.51	0.00	0.00	0.00

Sub-Station to 33 KV SE Falls Sub-Station from ACSR Wolf to HTLC Copenhagen Conductors					
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7.3 **MATERIALS OF CAPITAL NATURE REQUIRED IN ROUTINE REPAIR AND MAINTENANCE**

MePDCL would like to submit that the routine repair and maintenance is a major part of the distribution business. This enables the DISCOM to maintain the existing system in healthy position and ensure supply of quality and reliable power. During the repair and maintenance activities the corporation has to incur expenditure on purchase of materials which are capital in nature to replace damage or obsolete equipments in the existing system. These expenditures are those which are not covered under any scheme and is required to be met by the corporation through its own resources i.e., equity.

MePDCL would like to submit that under O&M head the materials that have been procured include Poles, Distribution Transformers, Cables and conductors, current transformer, CT-PT Sets, insulators and other accessories.

MePDCL would like to submit that the details of the materials purchased under O&M head in last two years is as under:

Particular	Amount in Cr.
Purchase in FY 2024-25	50.73
Purchase in FY 2025-26	27.42
Average	39.07
Utilization Rate	80.00%
Amount Put to Use	31.26
Amount Put to Use	31.26

Based on the above pattern MePDCL has considered a capitalization of Rs. 31.26 Crore in each financial year of the control period. The funding pattern of such capitalization has been considered as equity.

Based on the above schemes the projected capitalization and funding pattern of the capitalization in the fifth control period as a whole is presented below:

Table 51 Summary of Capitalization Proposed During Fifth Control Period (Rs. Cr.)

S No.	Name of Project	Capitalization 2027-28	Capitalization 2028-29	Capitalization 2029-30	Capitalization 2030-31	Capitalization 2031-32
1	RDSS Loss Reduction Works	112.88	451.54	0.00	0.00	0.00
2	ADB Distribution Improvement Program	182.41	254.16	0.00	0.00	0.00
3	RDSS Additional Household Works	128.01	298.30	0.00	0.00	0.00
4	Construction of 33/11 kV Sub-Station in Garo Hills Region	28.92	19.28	0.00	0.00	0.00
5	Meghalaya Power Distribution Sector Strengthening Program	0.00	162.00	108.00	216.00	54.00
6	Re-engineering and augmentation of 33 KV Double Circuit Line from Mawprem to Rilbong and Riblong to 33/11 KV Kench's Trace Sub-Station from ACSR Wolf to HTLC Copenhagen Conductors	7.46	7.46	0.00	0.00	0.00
7	Re-engineering and augmentation of 33 KV Single Circuit Line from 132 KV NWHU Sub-Station to 33 KV SE Falls Sub-Station from ACSR Wolf to HTLC Copenhagen Conductors	4.51	4.51	0.00	0.00	0.00
8	Operation and Maintenance Materials	31.26	31.26	31.26	31.26	31.26
	Total	495.45	1228.50	139.26	247.26	85.26

7.4 UPGRADATION IN MAWSYNRAM SUB-DIVISION

MePDCL would like to submit that as stated earlier the Mawsynram sub-division was under the Distribution Franchisee since 2019. However, due to poor performance and lacunas in operational management, the contract of M/S FEDCO was terminated with effect from 31st October 2025. The new RfP was floated simultaneously and M/S Sai Computers was selected through competitive bidding process as the new franchisee operator however, due to the

public protest M/S Sai Computers could not take over the operations and finally it was decided to that the operations of the sub-division would be taken over by MePDCL.

Since, M/S FEDCO has not maintained the sub-division as per the expectation, the infrastructure in the area needs to be upgraded. Though while floating the new RfP MePDCL has taken care that the Loss reduction works under RDSS would also be taken up in the franchisee areas however, some preliminary works are required to be taken on urgent basis. MePDCL is carrying out a detailed survey for the same. Though the survey is yet to be completed an estimated amount of Rs. 5 Crore has been identified which would be required for the area which would include replacement of transformers, cables, CT-PT sets and metering of consumers.

Accordingly, MePDCL is claiming an estimated amount of Rs. 5 Crore to funded through equity for Mawsynram area. However, MePDCL craves leave of the Hon'ble Commission to revise the figure before filing the Petition for Multi Year Tariff based on the actual estimates.

Based on above the final capitalization during the fifth control period i.e., FY 2027-28 to FY 2031-32 along with funding pattern would be as under:

Table 52 Funding Pattern of the Projected Capitalization During Fifth Control Period (In Rs. Cr.)

Particular	Capitalization 2027-28	Capitalization 2028-29	Capitalization 2029-30	Capitalization 2030-31	Capitalization 2031-32
Additional Capitalization Funded Through Grants	452.22	1185.27	108.00	216.00	54.00
Additional Capitalization Funded Through Equity	48.22	43.22	31.26	31.26	31.26
Total	495.45	1228.50	139.26	247.26	85.26

MePDCL would like to humbly submit that there are multiple Government and Private constructions are coming up in New Shillong. There would be essentially capital expenditure required for providing the electricity connections to new constructions coming up. However, at present the estimates and the schemes required for providing the connections cannot be estimated as the requirement is yet to be received. However, MePDCL would like to submit that most of the capital expenditure required for New Shillong would either be covered under SASCI or deposit works and hence it would have minimal or no impact on the tariff. Hence, MePDCL craves the leave of the Hon'ble Commission to seek approval of these schemes as and when the requirement arises.

Prayers:

1. To approve the projected number of consumers and connected load for the period FY 2027-28 to FY 2031-32
2. To approve projected sales to various consumer categories for the period FY 2027-28 to FY 2031-32.
3. To approve the Power Procurement Plan for the period FY 2027-28 to FY 2031-32
4. To approve the Capital Investment Plan for the Period FY 2027-28 to FY 2031-32
5. Condone any inadvertent error in the Petition and allow the correction of the same during the course of proceeding of the Petition.
6. To allow modification/ addition in the Petition during the course of the proceedings of the Petition.
7. Pass any order that Hon'ble Commission deems fit to do so.

8. LIST OF ANNEXURES

1. Annexure A- Board Resolution
2. Annexure B- Copy of Excel Models for Projections of Various Components of Business Plan (Submitted in Soft Copy)