

A Study of Eastern Region Discoms: Performance Trends and Insights



Objective:

The presentation will focus on:

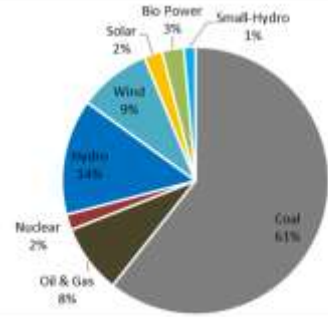
- I. Interactive Discussion & Presentation on India Climate & Energy Dashboard (ICED) focusing on Distribution Sector
- II. Deep-dive into Operational & Financial Parameters of each Distribution Companies in the Eastern and North-Eastern Region

- **Decarbonisation:** Generate over 80% of installed capacity and two-thirds of total from non-fossil fuel sources by 2047.
- **Electrification:** Double electricity's share in final energy consumption, driven by large-scale electrification of transport, industry and cooking.
- **Energy Storage:** Achieve 300 GWh storage capacity target by 2030 and dedicated green energy transmission corridors to integrate high shares of variable renewables without grid instability – the essential enabling layer for the 60% target
- **Low carbon anchors:** Target 100 GW of nuclear power by 2047 and 100 GW of Pumped Storage capacity by 2035-36 to ensure grid stability against intermittent renewables.
- **Investments:** A massive capital infusement of ₹200 lakh crore needed by 2047 for generation, transmission, and distribution strengthening.
- **Energy Security:** Need for building resilient energy sector through renewable led direct and indirect electrification, nuclear and strategic reserves to reduce the dependence on imported fuels and safeguard against global disruptions.

India's Energy Transition Story

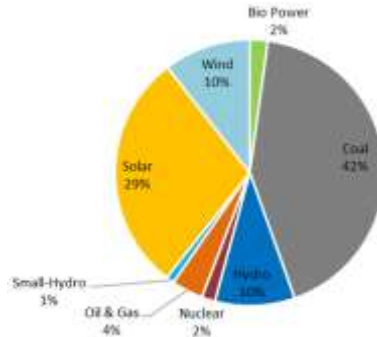
Source-Wise Electricity Installed Capacity (in %)

2015-16



Total: 305 GW

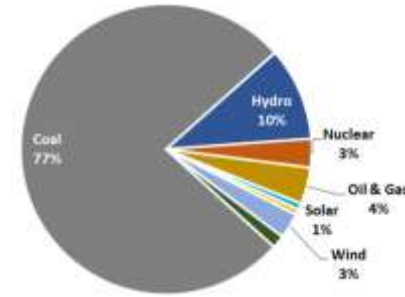
2026-27 (As on May 2026)



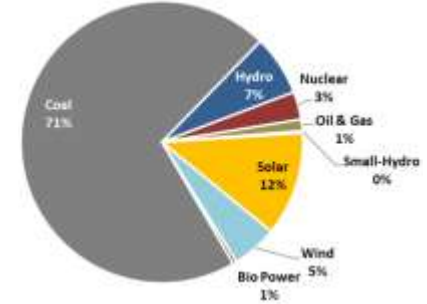
Total: 542 GW

Source-Wise Electricity Generation (in %)

2015-16

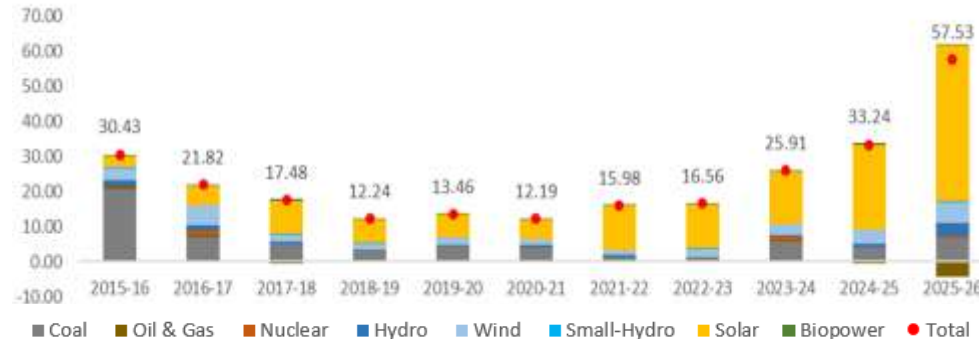


2026-27 (As on May 2026)



Solar Generation increased from 1% to 12% over a decade

Net Capacity Addition Trend from 2015-16 to 2025-26 (in GW)

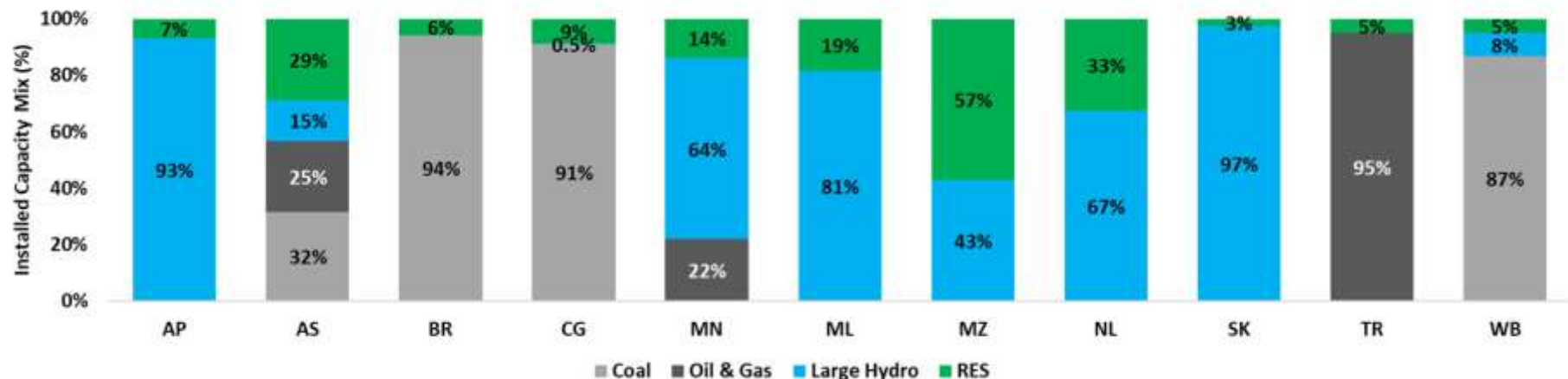


India's Electricity Demand vs. Deficit



Source: ICED & CEA

Central Region States/ UTs: Installed Capacity Mix (as on May 2026)



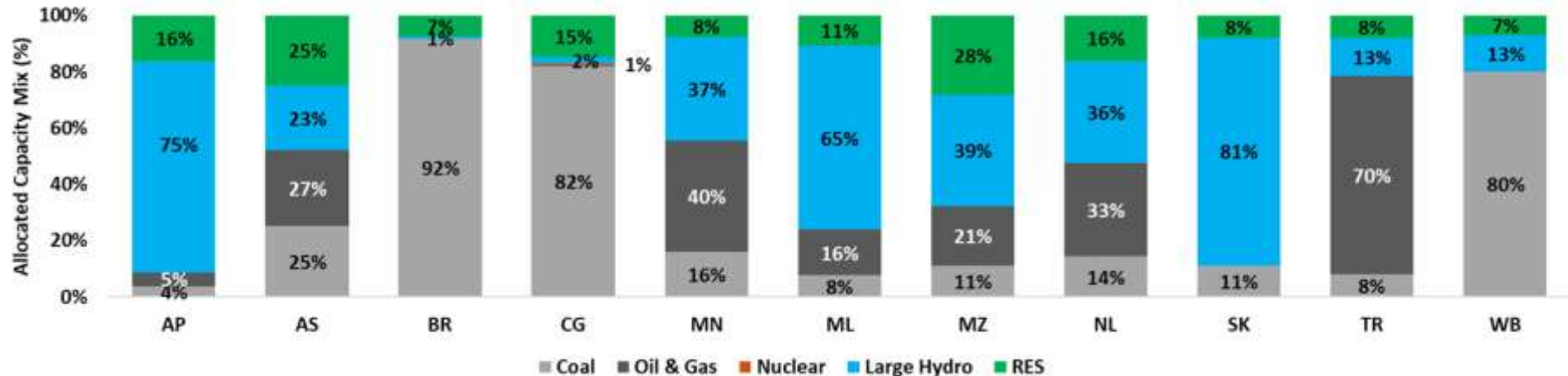
Numbers are in GW

Parameters	AP	AS	BR	CG	MN	ML	MZ	NL	SK	TR	WB
Total Installed Capacity	2.27	2.38	10.82	26.52	0.16	0.40	0.14	0.11	2.34	1.12	16.05
Total RE Capacity	2.27	1.03	0.65	2.42	0.13	0.40	0.14	0.11	2.34	0.06	2.15
RE Share	100%	43%	6%	9%	78%	100%	100%	100%	100%	5%	13%

NOTE: RES includes solar, wind, biopower and small hydro.

Source: ICED & CEA

Central Region States/ UTs: Allocated Capacity Mix (as on May 2026)



Numbers are in GW

Parameters	AP	AS	BR	CG	MN	ML	MZ	NL	SK	TR	WB
Total Installed Capacity	0.95	2.76	8.70	15.49	0.30	0.68	0.28	0.22	0.80	0.69	11.49
Total RE Capacity	0.87	1.32	0.72	2.65	0.13	0.51	0.19	0.12	0.71	0.15	2.30
RE Share	91%	48%	8%	17%	44%	76%	68%	52%	89%	21%	20%

NOTE: RES includes solar, wind, biopower and small hydro.

Source: ICED & CEA

Seasonal Variation in Peak Demand (in MW): State-wise Comparison

Bihar (MW)

Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
2015-16	3000	3024	3011	3106	3303	3416	3554	3552	3631	3500	3500	3615
2016-17	3569	3685	3563	3600	3600	3700	3700	3800	3800	3900	3900	3900
2017-18	3800	3800	3900	3900	3900	3900	4000	3900	3800	4370	4367	4511
2018-19	5053	5008	5000	5251	5007	5425	5157	4536	4272	4417	4322	4923
2019-20	5217	5545	5467	5437	5892	5893	5105	4312	5101	4743	4537	4251
2020-21	4757	5415	5922	5948	6023	6006	5850	4955	4794	5348	5312	5979
2021-22	6219	5874	6273	6966	6581	6752	6652	4770	5204	6153	5284	5943
2022-23	7138	6405	7045	7861	7508	7354	6625	5077	5047	5751	5326	5378
2023-24	6820	6657	7071	7578	7258	7387	6597	5519	4963	5625	5190	5758
2024-25	7051	7546	7588	7909	7905	8243	7204	6056	5424	5672	5386	6518
2025-26	7674	7736	8491	8752	8327	8628	7676	5519	6459	6695	6024	6928

Chhattisgarh (MW)

Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
2015-16	6789	6757	6757	6899	6502	6346	6938	6755	6550	6863	7116	7391
2016-17	7370	7390	7000	7175	7962	7733	7404	7296	7136	7367	7528	7663
2017-18	7879	7882	8017	7939	7458	7992	7750	8166	8400	8558	8982	8983
2018-19	8945	9264	9198	8550	8729	9439	9439	9439	9439	9439	9439	8984
2019-20	9160	9854	7447	7036	9854	8672	7988	8426	9118	9605	9963	10207
2020-21	8595	10125	9423	8500	8892	9523	8820	9493	8937	9977	10463	11193
2021-22	11694	10390	10172	9994	11018	10445	9865	7865	9462	10128	11342	12032
2022-23	12293	11218	11218	9805	11300	10920	9734	9605	10268	11448	11980	12181
2023-24	12494	12653	12903	11619	12508	12343	13039	12085	12085	11052	12216	12216
2024-25	13418	13712	12578	11020	11825	12714	11545	11023	10527	12027	12726	13110
2025-26	13117	12600	12251	12956	12879	12527	10851	10076	11586	12622	13444	14011

West Bengal (MW)

Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
2015-16	7283	7492	7423	7489	7522	7853	7976	7199	6468	6686	7111	7793
2016-17	8083	8256	7875	7959	8220	8300	8019	7073	6842	6739	7845	8439
2017-18	8570	8350	8365	8340	8315	8470	8245	7375	7140	7005	7661	8625
2018-19	8538	8731	8896	8811	8557	8819	8894	7634	6270	6501	6950	8441
2019-20	8723	9432	9347	9138	8881	9025	8221	7206	6247	6372	6724	7097
2020-21	7051	7856	8233	8430	8506	8648	8618	7547	6530	6725	7298	8949
2021-22	9108	8855	8612	8909	8812	8791	8894	7302	6493	6663	7044	8990
2022-23	9905	9225	9743	9778	9764	9748	9239	7933	7027	7456	7630	8784
2023-24	11868	11105	11806	10675	10642	10667	9684	8481	7096	7281	7522	10188
2024-25	12756	12670	12412	11672	10707	11845	11227	8765	7256	7843	8337	10702
2025-26	12386	12781	13108	12940	11451	11914	10306	9111	7940	8289	8745	10365

Assam (MW)

Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
2015-16	1396	1385	1391	1491	1416	1437	1404	1387	1319	1341	1340	1341
2016-17	1448	1497	1512	1598	1658	1616	1677	1532	1395	1466	1404	1396
2017-18	1417	1649	1749	1671	1727	1773	1818	1515	716	1535	1506	1471
2018-19	1528	1621	1775	1857	1829	1865	1784	1547	1442	1491	1420	1542
2019-20	1712	1756	1846	1840	2051	1980	1770	1508	1380	1366	1381	1467
2020-21	1419	1720	1798	1839	1943	2073	1987	1724	1437	1461	1485	1747
2021-22	1913	1952	2062	2104	2096	2104	2121	1636	1475	1505	1499	1901
2022-23	1796	2146	2140	2231	2376	2342	2312	1714	1590	1643	1572	1670
2023-24	2013	2219	2307	2390	2353	2413	2226	1931	1553	1538	1634	1814
2024-25	2012	2404	2386	2524	2617	2812	2262	1853	1543	1581	1647	1917
2025-26	2081	2336	2717	2805	2582	2812	2412	1912	1684	1634	1775	1888

NOTE: Green to Red Colours Signify the Increasing Intensity of Peak Demand.

Source: ICED & CEA

Seasonal Variation in Peak Demand (in MW): North-East State-wise Comparison

Arunachal Pradesh (MW)													
Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
2015-16	138	138	110	110	116	122	129	120	133	118	139	115	
2016-17	141	119	131	135	149	143	128	128	131	122	139	139	
2017-18	133	145	124	132	132	135	145	144	72	139	133	129	
2018-19	130	128	138	130	135	132	129	128	133	126	150	133	
2019-20	139	140	146	137	155	152	137	146	139	125	158	154	
2020-21	77	108	145	155	157	157	130	149	81	149	156	143	
2021-22	174	154	141	197	182	185	162	170	146	164	197	143	
2022-23	133	142	158	119	155	144	121	125	145	166	159	172	
2023-24	155	165	155	151	155	163	167	160	163	181	186	177	
2024-25	185	198	170	186	195	194	170	167	167	196	218	180	
2025-26	172	184	203	223	221	196	200	178	186	190	194	186	

Manipur (MW)													
Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
2015-16	150	160	148	139	150	147	147	165	167	168	159	155	
2016-17	146	145	153	141	145	151	145	152	161	164	163	160	
2017-18	155	163	156	161	164	166	174	180	82	190	198	185	
2018-19	193	179	179	173	177	184	187	189	214	219	192	203	
2019-20	197	183	188	182	207	190	197	224	216	221	226	210	
2020-21	215	208	220	225	200	243	219	232	252	239	231	216	
2021-22	208	208	212	206	206	210	219	223	246	258	257	225	
2022-23	202	197	201	201	207	203	202	219	247	248	225	212	
2023-24	213	193	185	202	209	209	214	207	235	258	252	226	
2024-25	214	227	225	213	214	235	226	233	269	267	248	213	
2025-26	228	248	242	233	233	239	235	247	266	277	273	252	

Sikkim (MW)													
Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
2015-16	86	94	91	91	84	86	79	101	112	85	96	94	
2016-17	88	122	84	90	85	85	85	85	90	90	90	90	
2017-18	85	85	85	85	85	85	85	85	90	107	107	101	
2018-19	99	104	88	94	100	99	99	108	108	107	109	110	
2019-20	115	97	97	104	98	104	106	129	133	189	157	173	
2020-21	107	105	98	100	88	99	96	113	142	143	129	120	
2021-22	80	101	91	121	87	105	104	121	131	124	130	122	
2022-23	117	113	116	101	105	117	119	118	132	132	122	115	
2023-24	105	104	101	96	92	98	86	101	115	117	128	118	
2024-25	105	102	99	94	104	98	99	111	127	134	134	126	
2025-26	104	109	105	95	94	106	91	106	125	136	124	124	

Meghalaya (MW)													
Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
2015-16	400	401	300	317	322	286	324	338	350	379	322	322	
2016-17	295	282	312	293	296	298	301	312	310	332	300	298	
2017-18	298	304	272	304	297	326	300	339	163	331	311	307	
2018-19	307	368	326	332	326	317	336	352	366	372	356	357	
2019-20	336	329	367	333	333	336	338	350	365	371	370	343	
2020-21	261	322	335	321	320	334	336	353	384	376	377	348	
2021-22	357	329	322	317	331	327	368	378	391	408	405	369	
2022-23	359	343	342	332	349	354	356	381	395	404	394	374	
2023-24	336	353	333	330	322	331	334	363	349	405	399	398	
2024-25	408	394	330	359	346	317	354	368	378	393	352	354	
2025-26	340	339	330	337	350	344	343	358	361	374	368	359	

Nagaland (MW)													
Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
2015-16	120	120	123	140	133	121	122	121	140	122	119	114	
2016-17	110	107	119	120	117	123	130	128	127	122	148	123	
2017-18	121	132	147	140	138	147	137	137	73	125	130	148	
2018-19	155	147	129	132	134	142	134	139	135	141	130	127	
2019-20	157	130	144	169	192	176	151	150	167	182	165	157	
2020-21	143	136	151	147	149	154	160	151	155	134	152	150	
2021-22	154	151	158	149	168	173	155	152	154	145	157	149	
2022-23	138	145	150	159	162	161	167	165	152	139	148	156	
2023-24	150	152	167	167	174	172	166	147	162	162	156	158	
2024-25	166	177	184	188	183	184	176	178	176	172	173	164	
2025-26	176	187	203	193	190	191	188	175	184	177	194	168	

Tripura (MW)													
Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
2015-16	264	301	250	250	262	269	270	244	222	220	229	249	
2016-17	272	252	275	259	266	277	284	266	231	224	224	228	
2017-18	252	280	280	270	275	307	302	240	171	226	238	257	
2018-19	268	276	280	297	291	296	269	259	240	224	231	250	
2019-20	292	297	320	298	300	303	291	257	224	229	222	252	
2020-21	239	284	287	288	301	313	314	270	239	228	241	236	
2021-22	300	306	287	296	303	305	327	253	227	224	227	283	
2022-23	316	303	306	319	324	333	321	282	241	248	252	264	
2023-24	338	345	362	343	330	344	349	299	239	235	201	288	
2024-25	363	386	353	359	341	376	333	310	239	234	252	322	
2025-26	334	347	366	374	362	377	347	310	240	237	246	289	

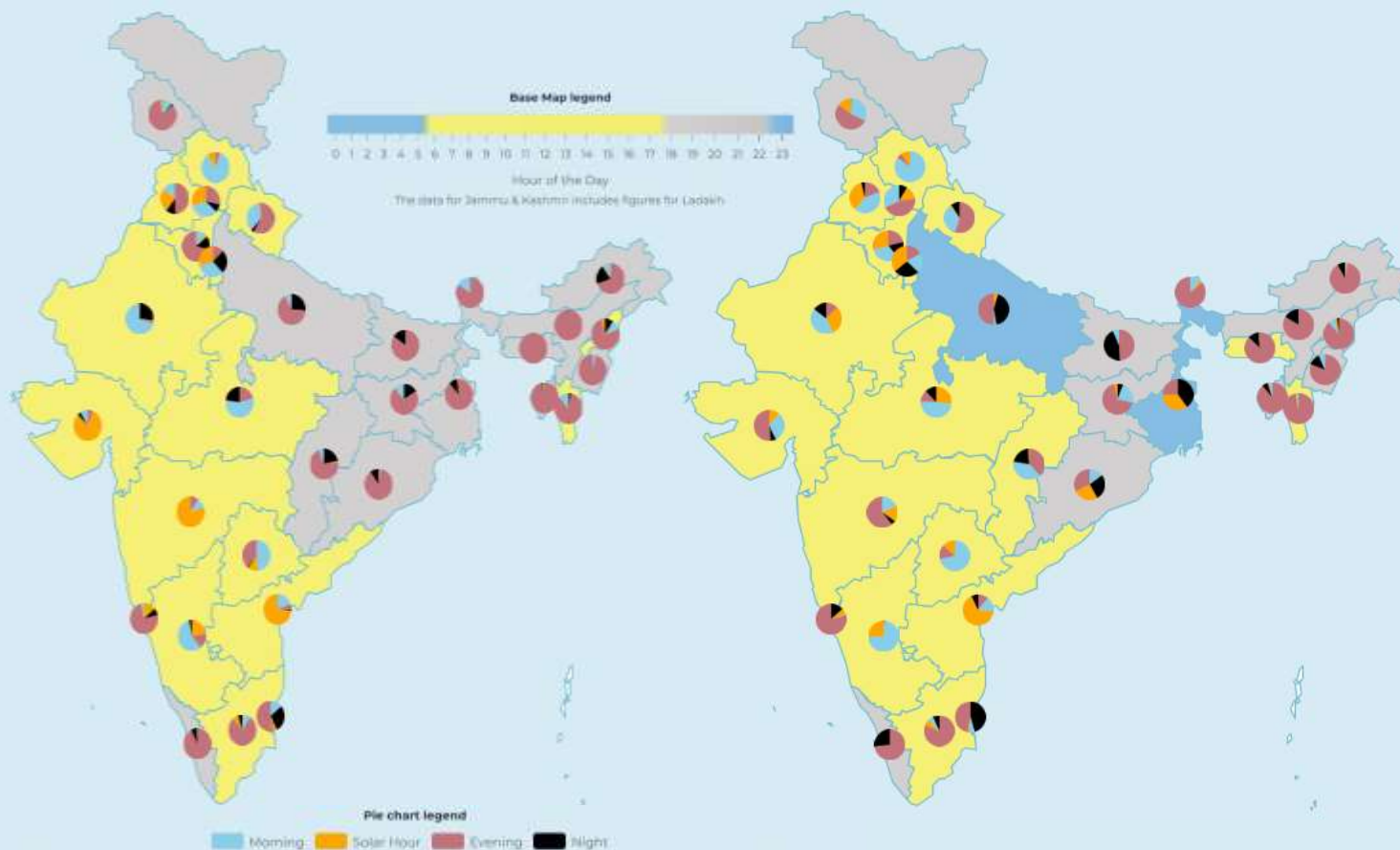
NOTE:
Green to Red
Colours
Signify
the
Increasing
Intensity of Peak
Demand

Source:
ICED &
CEA

Comparison of Hourly Peak Demand Patterns: State-wise Comparison

2018

2025



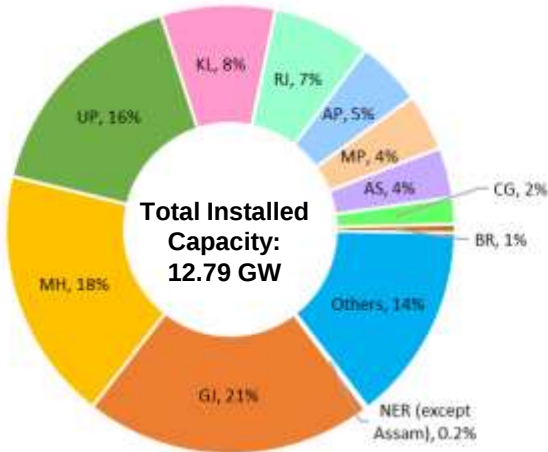
- Bihar witness its peak demand mostly in evening and night time.
- Chhattisgarh and Telangana has increasingly shifted from the evening to the morning hours.
- West Bengal has shifted from evening peaks to solar hour and night time peak.
- North-Eastern states primarily characterised by domestic loads experienced a night-time peak demand.

PM KUSUM Progress
(Installed vs.Sanctioned)
(as on 31st May 2026)

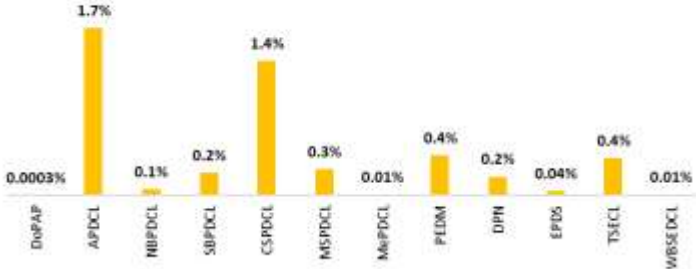
Component A Chhattisgarh: 2% Assam (2 MW) and Tripura (5 MW) have sanctioned RE power plants, but no progress has been reported.	Component B Nagaland : 100% Arunachal Pradesh : 100% Tripura : 76% Assam : 37% Manipur : 36% Mizoram : 35% Meghalaya : 4%
Component C (IPS) Tripura : 33% West Bengal : 20%	Component C (FLS) Bihar (1.4 lakh) and Chhattisgarh (0.1 lakh) have sanctioned feeder solarisation projects, but no progress has been reported.

Source: PM KUSUM
Dashboard

**PM Surya Ghar Muft Bijli
Yojana Progress**
(as on 22nd June 2026)



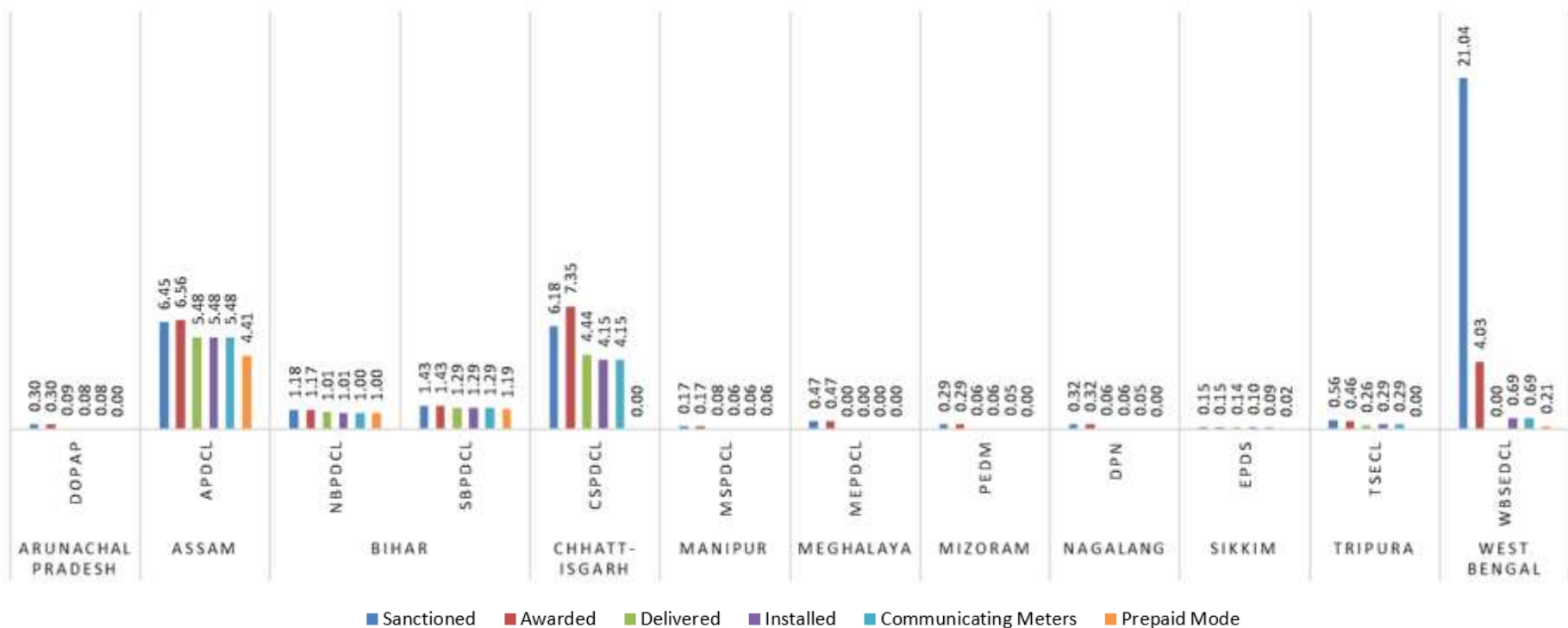
Progress of Solar rooftop Installation against Domestic Consumers across DISCOMS under PMSGMBY scheme



Source: PM Surya Ghar Dashboard

National Scheme Progress

Smart Meter Installation Progress under RDSS (Numbers in Millions) (as on 22nd June 2026)



A Snapshot of Integrated Ratings and Scores for Eastern-Region DISCOMs

State	DISCOM	2020-21	2021-22	2022-23	2023-24	2024-25
Arunachal Pradesh	Department of Power Arunachal Pradesh	C-	C-	C	A	B
Assam	Assam Power Distribution Company Limited	B-	A	B-	A	A
Bihar	North Bihar Power Distribution Company Limited	C-	C-	C	B	A
	South Bihar Power Distribution Company Limited	C-	C-	C	B-	A
Chhattisgarh	Chhattisgarh State Power Distribution Company Limited	C	C	B-	B	A
Manipur	Manipur State Power Distribution Company Limited	C	C	C	B-	B-
Meghalaya	Meghalaya Power Distribution Corporation Limited	D	C	C-	C	B
Mizoram	Power & Electricity Department, Mizoram	C	C-	C	C	A
Nagaland	Department of Power Nagaland	C-	C-	B	B	A
Sikkim	Energy and power department (Govt. of Sikkim)	C-	B-	B-	A	A
Tripura	Tripura State Electricity Corporation Limited	B-	B-	C	C	C
West Bengal	West Bengal State Electricity Distribution Company Limited	C	B	B-	B	A

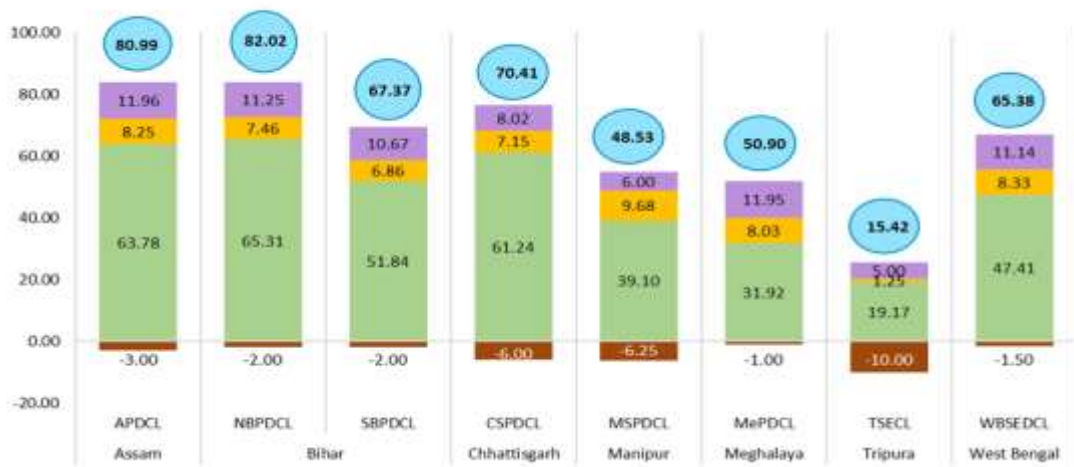
D C- C B- B A A+

- Bihar has steadily improved its performance rating from **C-** in 2020-21 to **A** in 2024-25. This improvement was driven by sustained gains in operational and financial parameters, including lower AT&C losses, higher collection efficiency, a reduced ACS-ARR gap and an improved debt service coverage ratio.
- Mizoram rating improved from **C** in 2023-24 to **A** in 2024-25, driven primarily by the clearance of long-pending government subsidy dues and the benefits arising from timely payment incentives.
- Similarly, West Bengal's improved rating in 2024-25 – from **B** to **A** – was supported by revenue grants received from the Government of West Bengal.
- Assam's rating recovered to **A** in 2024-25 after dipping to **B-** in 2022-23, supported by gains in operational and financial performance. . APDCL achieved lower AT&C losses, enhanced collection efficiency and a narrowing of the ACS-ARR gap, contributing to the overall improvement.

A Snapshot of Integrated Ratings (IR) and Scores for Eastern-Region DISCOMs for 2024-25

State DISCOMs

Power Departments



■ Financial Sustainability
 ■ Performance Excellence
 ■ External Environment
 ■ Specific Disincentives
 ● Total Score

Parameter	State DISCOMs	Power Departments
Financial Sustainability	75	55
Performance Excellence	13	35
External Environment	12	10
Total Score	100	100

Parameter	Indicator
Financial Sustainability	ACS-ARF Gap (cash-adjusted)
	Days Receivable
	Days Payable to GenCo & TransCo
	Adjusted Book Ratio
	DUCK (cash-adjusted)
Performance Excellence	Revenue (cash-adjusted)
	Billing Efficiency
	Collection Efficiency
	Provision (loss) (MNC approved)
	Corporate Governance
External Environment	Subsidy Realized (last 3 FYs)
	Loss Takeover by State Government
	Government Debt (last 3 FYs)
	Tariff Cycle Timeliness
	Auto Pass Through of Fuel Costs

Specific Disincentives
Auditor's Adverse Opinion
Availability of Audited Accounts
Default to Banks/Fin
Audit Qualifications
Governance (Audit Committee, External MD & CFO, Quarterly Accounts)
Tariff Cycle Delays
Tariff Independent of Subsidy
Uncovered Revenue Gap (Current Year)
Regulatory Assets

Source: PFC

A Snapshot of Eastern-Region Distribution Utilities Ranking (DUR) Report for 2024-25

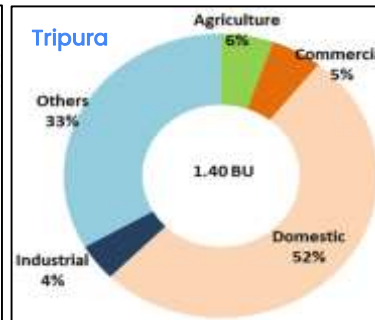
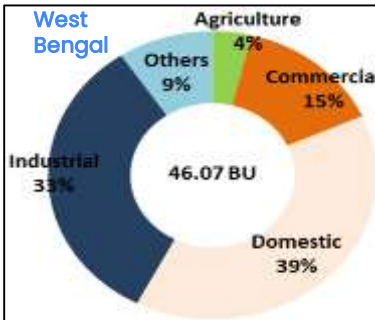
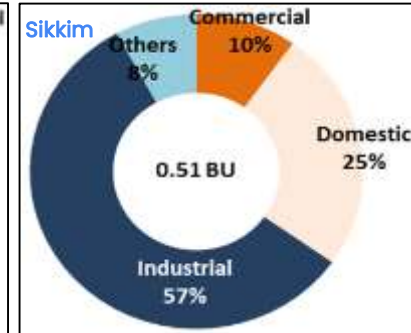
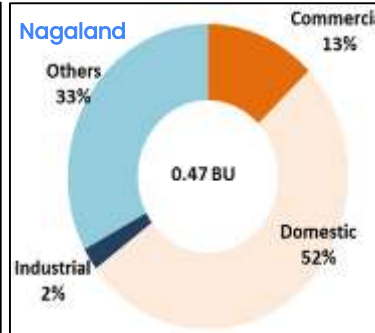
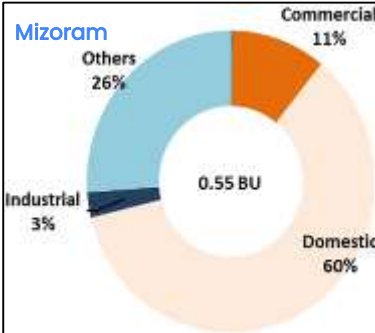
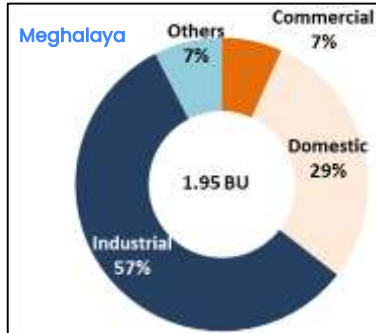
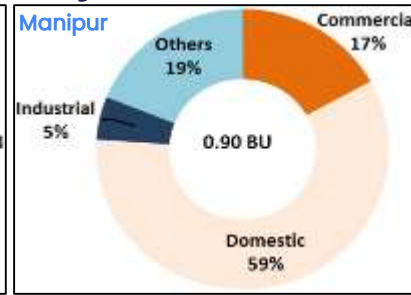
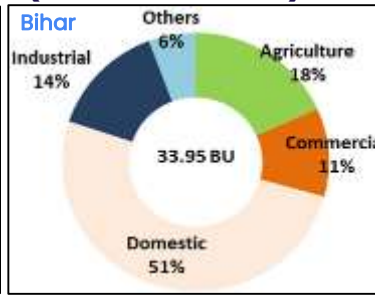
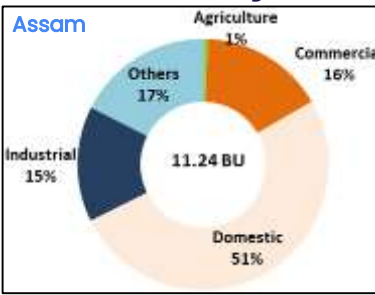
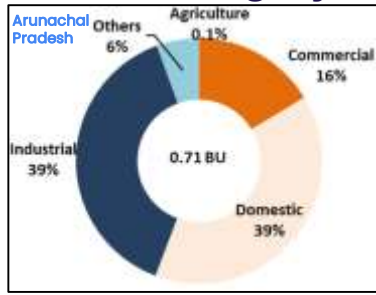
State/UT	DISCOM/ Power Department	IR Report	Consumer Service Rating of DISCOMs	RPO Achievement	Communicable System Metering	Demand-side Response	Resource Adequacy	Combined Score
	(Score)	35	35	5	5	5	15	100
Arunachal Pradesh	Arunachal PD	19.7	24.4	4.0	0.0	2.5	6.0	56.5
Assam	APDCL	28.4	29.0	2.5	5.0	2.4	14.8	84.6
Bihar	NBPDCL	28.7	30.0	0.0	2.5	4.4	12.4	78.0
	SBPDCL	23.6	27.2	0.5	2.5	3.9	12.4	70.0
Chhattisgarh	CSPDCL	24.6	22.4	3.0	1.3	2.8	11.2	69.4
Manipur	MSPDCL	17.0	31.4	2.0	3.8	0.0	10.4	64.6
Meghalaya	MePDCL	17.8	26.3	3.0	1.3	0.2	15.0	63.5
Mizoram	Mizoram PD	23.6	22.0	4.5	1.3	2.4	0.0	53.7
Nagaland	Nagaland PD	26.8	21.6	2.0	0.0	2.5	7.5	60.4
Sikkim	Sikkim PD	28.5	24.2	3.0	1.3	0.6	13.5	71.1
Tripura	TSECL	5.4	29.5	1.0	2.5	2.1	9.7	50.2
West Bengal	WBSEDCL	22.9	26.9	0.0	2.5	2.5	0.0	54.8

Source: REC Limited



Consumer Profile

Category-wise Electricity Sales (Billion Units) for the year 2024-25



State-wise Approved Tariff Comparison for Different Consumer Categories for the year 2024-25

(in ₹/kWh)

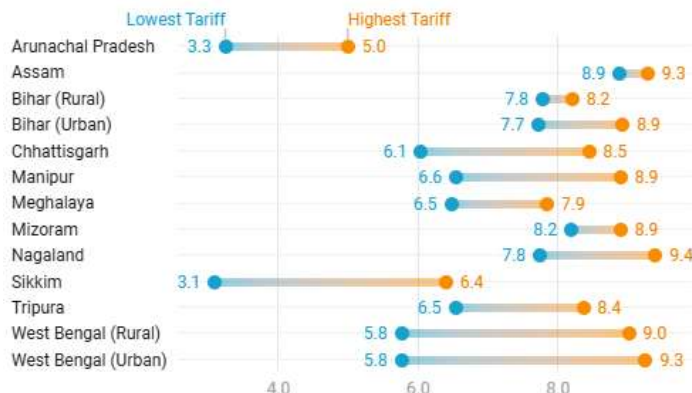
Domestic



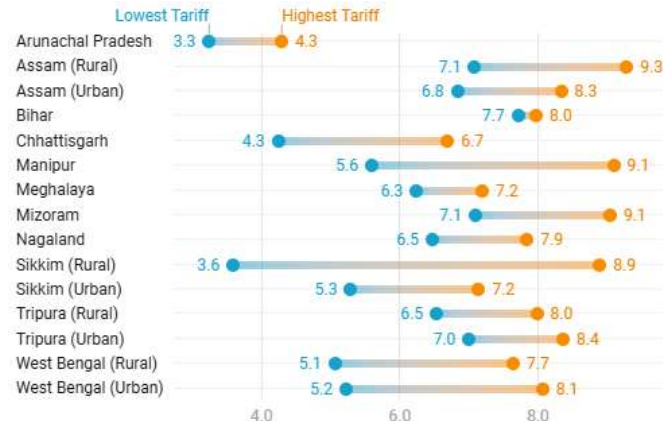
Agricultural



Commercial



Industrial

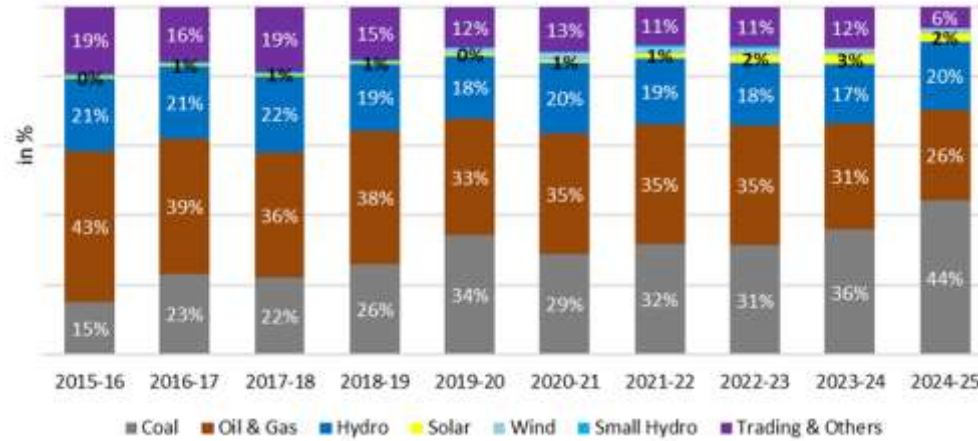




Power Procurement Snapshot

Power Procurement from expensive short-term sources - APDCL

Power Procurement Trends (%)



Power Procurement Cost Trends (Rs./kWh)



Facts:

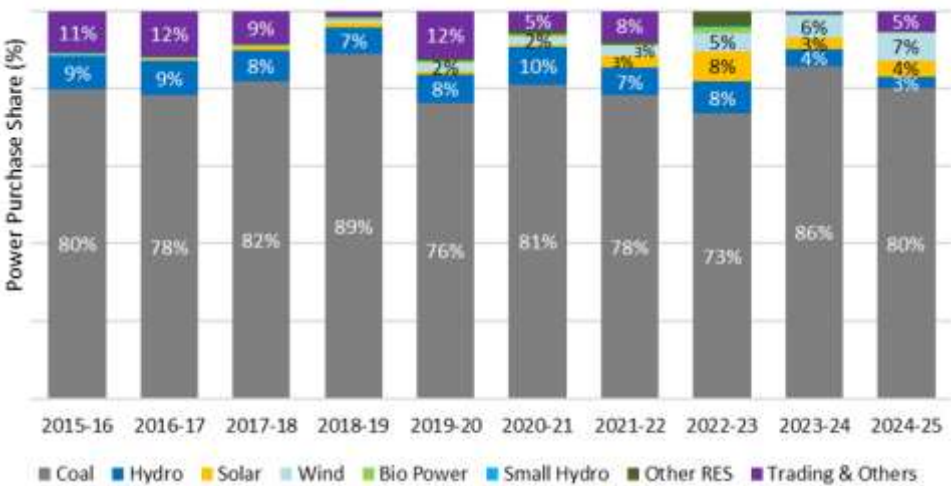
- The share of gas-based power in the procurement mix declined from 43% in 2015-16 to 26% in 2024-25
- while coal-based procurement increased from 15% in 2015-16 to 44% over the same period.
- APDCL procured 15,555.9 MU of power, lower than the approved quantum of 16,299.6 MU.
- Continuous dependence on expensive power sources, Suryatap Solar at ₹8.78/kWh and JNNSM solar bundled power at ₹12.73/kWh.
- In 2024-25, the utility added the power sourced from unapproved sources such as bilateral sources at ₹7.19/kWh & Patanjali solar & BRBCL.

Reflection:

- Robust resource planning and Strengthening demand forecasting



Power Procurement Trends (%)



Capacity Distribution among different generating sources (MW)

Generating Sources	Resource Adequacy Estimated Capacity (MW) for 2024-25 (RA Plan 2035-36)	Share Allocated Capacity (MW) for 2024-25 (Tariff Order)
Coal	8227	7892
Hydro	925	1209
RE (includes Solar, Wind, Biomass, DRE, Storage)	3,806	2966
Market (SToA/LToA)	1917	0
Total Capacity	14,875	12,067

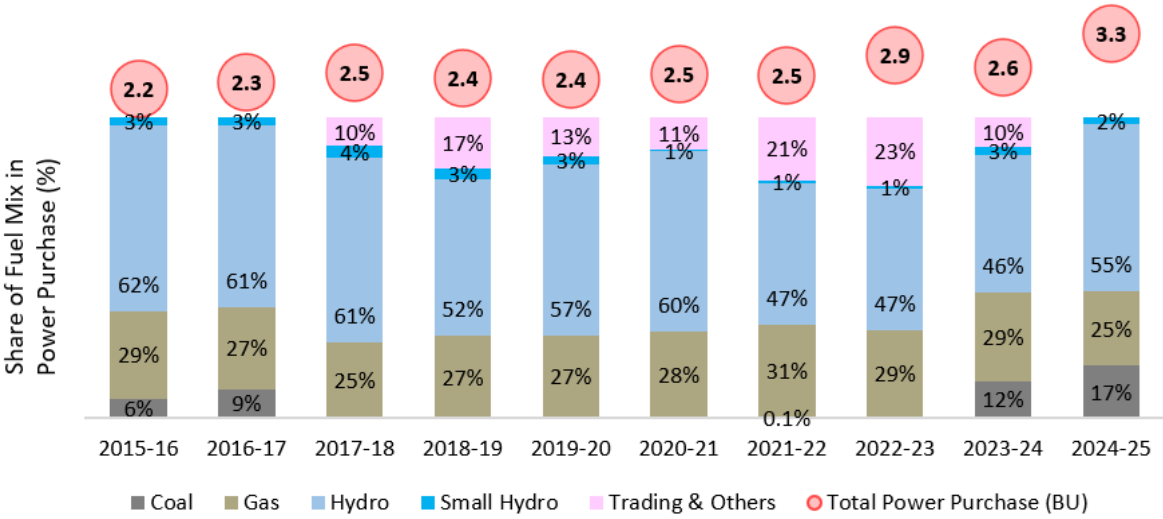
Facts:

- Historically relied heavily on coal-based power, with coal accounting for nearly 80–85% of its total power procurement
- The contribution of RES (incl. large hydro) to total power procurement increased from 9% in 2015-16 to 15% in 2024-25.
- Solar power procurement grew from zero to 4%, while wind increased from zero to 7%,
- Coal cost range from ₹2.82/kWh to ₹7.62/kWh, while solar ranges from ₹2.51/kWh to ₹8.73/kWh and market price stood at ₹8.34/kWh in 2024-25

Reflection:

- Enhance transparency in market-based power procurement
- Diversify the resource mix by increasing renewable energy integration to enhance energy security and meet RPO targets.

Power Procurement Trends (%)



Facts:

- Hydropower remains the primary source (47–62% share) at a low cost of ~₹3/kWh
- Followed by Gas-based power (25–31%) at ~₹3.7/kWh.
- From 2017-18 to 2022-23, coal power purchase stopped as NTPC imposed power regulation due to outstanding dues.
- MePDCL relied on high-cost short-term market purchases in the same period.

Rising Industrial Demand:

- Industrial sales share surged from 30.3% in 2019–20 to 56.93% in 2024–25.
- Meghalaya Power Policy 2024 emphasises need for reliable thermal base-load.

Power Procurement Quantum- Power & Electricity Department, Government of Mizoram (PEDM)

Power Procurement Trends (%)



Facts:

Power Mix Trends:

- Thermal power dominates (50–65%)
- Hydro share increased significantly from 27% to 41% over the past decade
- Solar contribution: ~4%
- Gas share has declined

Plant-wise Power Purchase Quantum and Cost in 2024-25

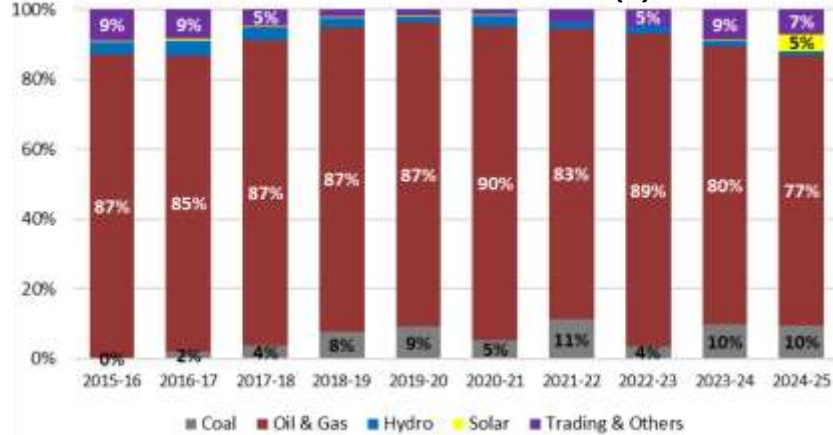


High Cost Drivers (2024-25):

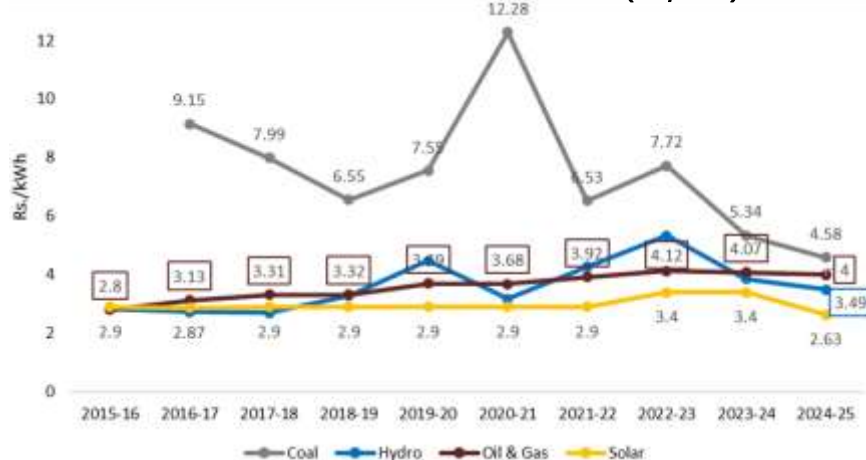
- ~85% of coal procurement (total coal) from NTPC Bongaigaon TPS (182 MU @ ₹7.7/kWh)
- Much higher than other coal stations (Farakka, Kahalgaon, Talcher @ ₹2.3–4.8/kWh)
- Additional high-tariff sources:
 - Gas plants: ₹7–11/kWh (except Palatana @ ₹3.6/kWh)
 - Doyang Hydro: ₹7.5/kWh (since 2021-22)

Power Procurement Quantum & Resource Adequacy- Tripura

Power Procurement Trends (%)



Power Purchase Cost Trends (Rs./kWh)



Facts:

- Tripura has the largest share of Oil & Gas across all the years
- Solar contribution increased from 0.22% to 5%,
- Hydro contributed around 1%
- Dependence on market-based power purchases declined from 9% in 2023-24 to 7% in 2024-25, primarily due to the increased procurement of solar power, whose share rose from 0.22% to 5% during the same period.

Resource Adequacy Going Ahead:

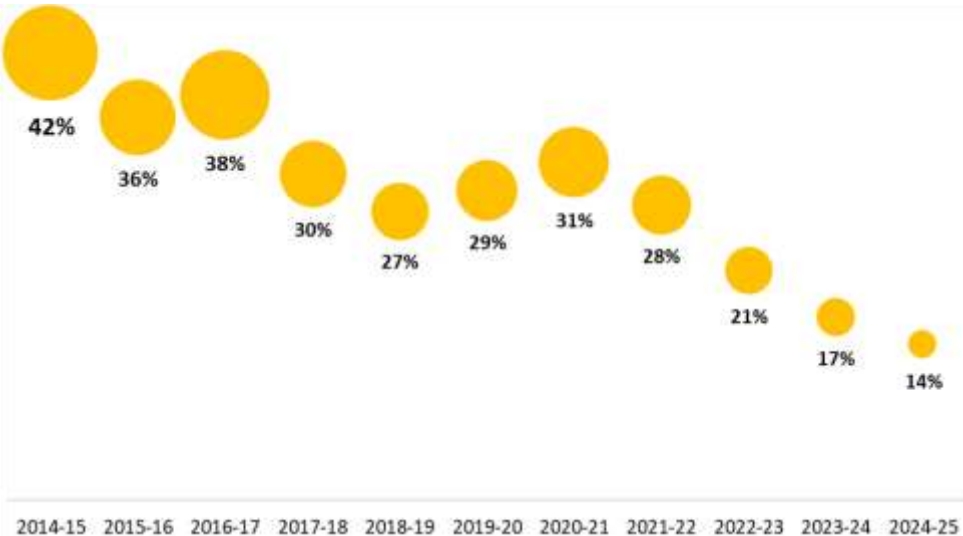
- By 2031-32, the state envisages a portfolio with 508 MW of gas-based capacity, 190 MW of hydro, 320 MW of solar, 27 MW of wind and 321 MW of market-based resources.
- The ageing 63 MW open-cycle gas plant at Rokhia is replaced by a more efficient 120 MW CCGT unit, scheduled for commissioning in 2027-28.
- The state has also tied up around 74 MW from the Subansiri Hydro Electric Project, expected to be available from 2026-27 onwards.



Operational Performance

Operational Performance: North Bihar Power Distribution Company Limited (NBPDCCL)

NBPDCCL AT&C Losses Trends



NBPDCCL has achieved AT&C losses of 14.5%, meeting the RDSS target range of 12–15%.

Key Initiatives undertaken by the DISCOM:

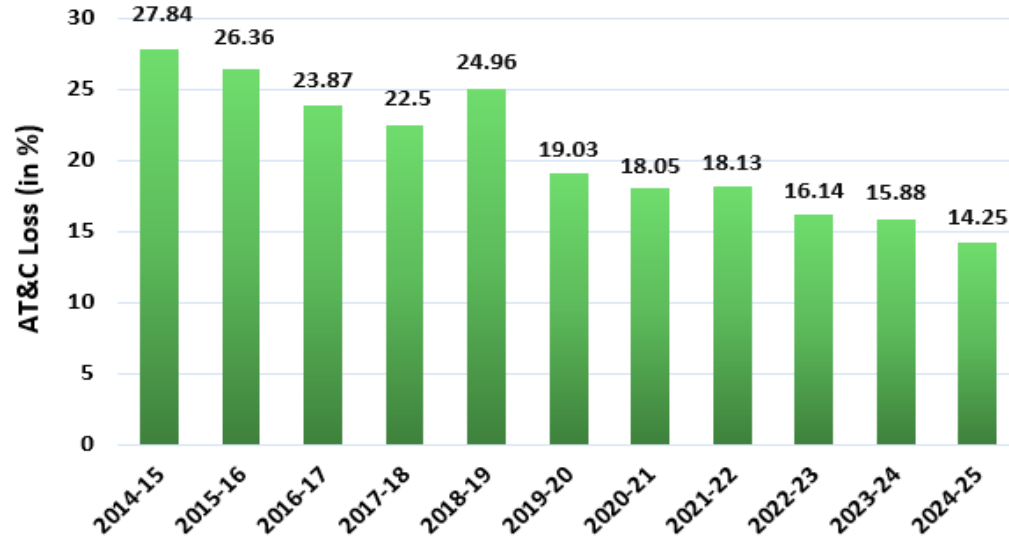
- Smart Metering and Accurate Billing
- AI-Driven Energy Accounting
- Network Strengthening & Modernisation
- Consumer-Centric Service Delivery
- Digitalisation of Consumer Services
- Data-Driven Governance and Accountability
- Capacity Building and Workforce Strengthening

Reflection:

- NBPDCCL sets new benchmarks in Distribution Performance through Smart Governance and Technology

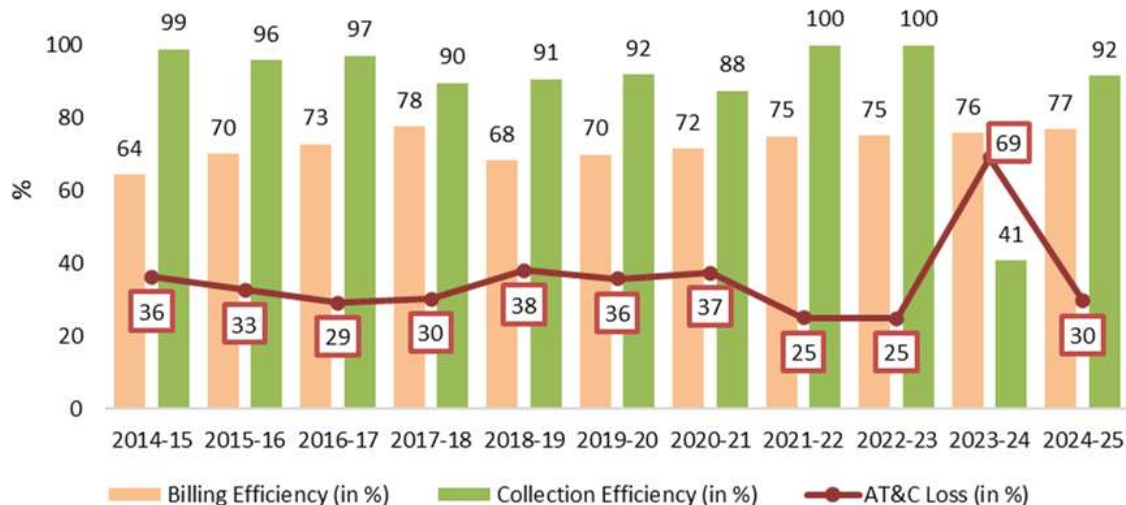
Operational Performance: Chhattisgarh Power Distribution Company Limited (CSPDCL)

CSPDCL DISCOMs Trends of AT&C Losses (%)



- CSPDCL witnessed a gradual AT&C losses reduction over the years.
- Key developments: invested ~₹230 crore to separate agricultural feeders and install feeder meters, installed 4.12 million smart meters under RDSS scheme.

Operational Parameters Trends (%) : Tripura (TSECL)



Inconsistencies in data from PFC & True-Up Tariff Order for 2023-24:

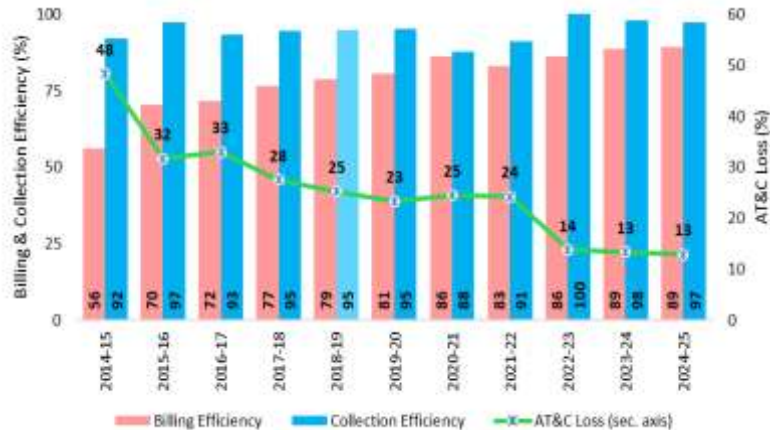
- According to PFC, the AT&C losses stood at 69% in 2023-24, while the collection efficiency at 41%
- However, according to the True-Up Tariff Order, the AT&C losses stood at 26.67% & collection efficiency at 102.65% in 2023-24.

Reflection:

- Strengthen data governance and reporting practices to ensure consistency across data sources and enable reliable analysis.

Operational Parameters- Manipur (MSPDCL) and Meghalaya (MePDCL)

Manipur's AT&C Loss, Billing and Collection Efficiency Trends



Facts

Root Causes of Historical High Losses:

- Long LT lines in difficult hilly terrain
- Rapid rural electrification adding low-density consumers
- Power theft and unauthorised consumption

Key Loss Reduction Initiatives under RDSS:

- Reconductoring of 11 kV lines & bifurcation of overloaded feeders
- State-wide replacement of bare LT conductors with Aerial Bundled (AB) Cables (most impactful)
- Expansion of metering & improved billing efficiency.

Meghalaya's AT&C Loss, Billing and Collection Efficiency Trends

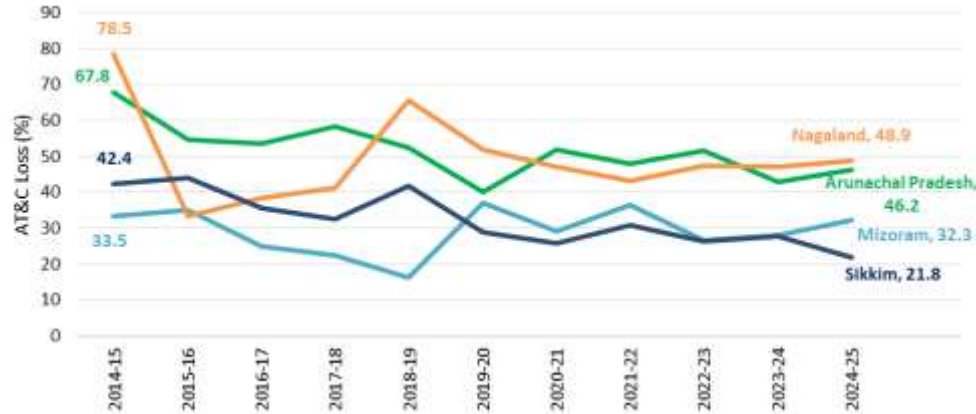


Manipur's Major Achievements:

- **1,42,751 unmetered consumers** regularised (Mar 2019 – Feb 2022) → Recovered **₹156.62 Crores**
- Prepaid meter installation reached **92%** as of 2025

Operational Parameters Trends : North-Eastern States

AT&C Loss Trends



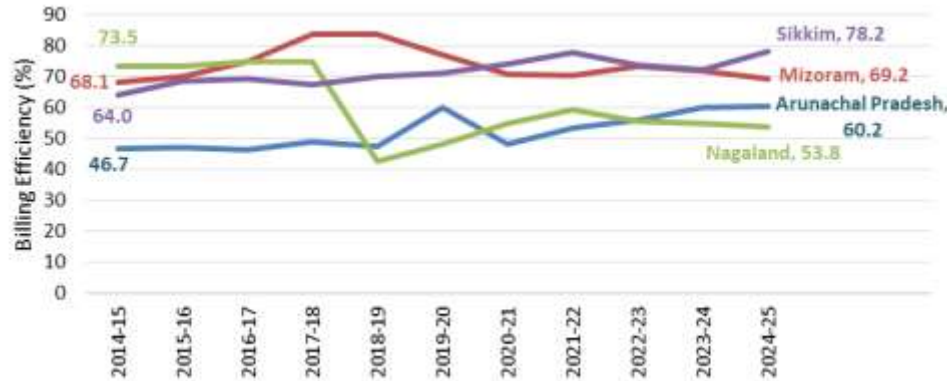
Facts

- **Elevated AT&C Losses:** Persistently high (often 40–49%) across several North-Eastern states.
- **Low Billing Efficiency:** Major concern — large portion of supplied energy remains un-billed (ranging from 54% to 70–85% in recent years).

Root Causes:

- Electricity theft, defective & tampered meters & illegal connections
- Obsolete metering infrastructure
- Absence of regular energy audits and poor identification of high-loss pockets
- Long LT lines in difficult hilly/mountainous terrain serving scattered rural consumers
- Weak monitoring, vigilance and inefficient billing practices

Billing Efficiency Trends

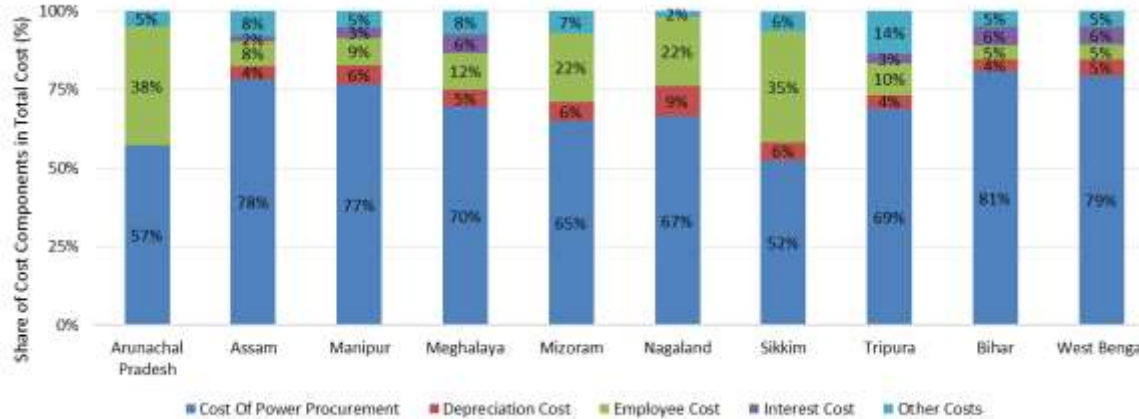




Financial Performance

Share of Cost Components for Eastern Region DISCOMs in 2024-25

Share of Cost Components in Total Cost



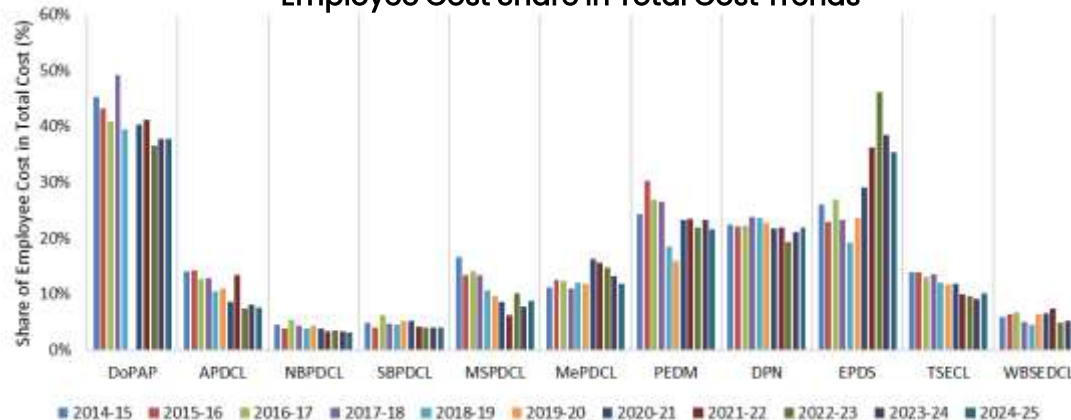
Fact:

- Employee Cost share is high in north-east state such as, Arunachal Pradesh, Sikkim, Mizoram and Nagaland.

Key Challenges:

- Vast mountainous terrain with low population density.
- Highly scattered consumer base across remote locations.
- Extensive LT network spread over difficult, inaccessible areas.
- High manpower requirement for maintenance, meter reading, billing & loss control.

Employee Cost Share in Total Cost Trends



Financial Parameter: Arunachal Pradesh

Total Revenue and Share of Revenue Components Trends



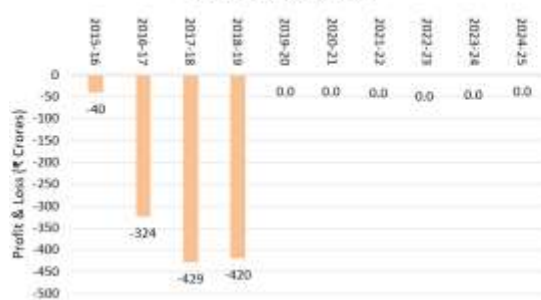
Facts:

- Significant revenue growth driven largely by large government grants
- Revenue from operations contributes only 40–48% of total revenue (last 4 years)
- Government grants & other income accounted for 52% of total revenue in 2024-25
- Maintained at NIL since 2019-20 entirely due to Revenue Grants-in-Aid from Government of Arunachal Pradesh.

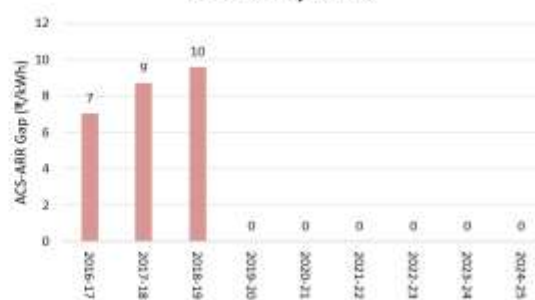
Regulatory Concern:

- Grants treated as direct revenue without accounting for **“Cost of Money”** (Return on Equity, Return on Investment & Interest)
- Leads to inefficiency in the power ecosystem, including persistently high AT&C losses

Profit & Loss Trends



ACS-ARR Gap Trends



Financial Parameter: Chhattisgarh Power Distribution Company Limited (CSPDCL)

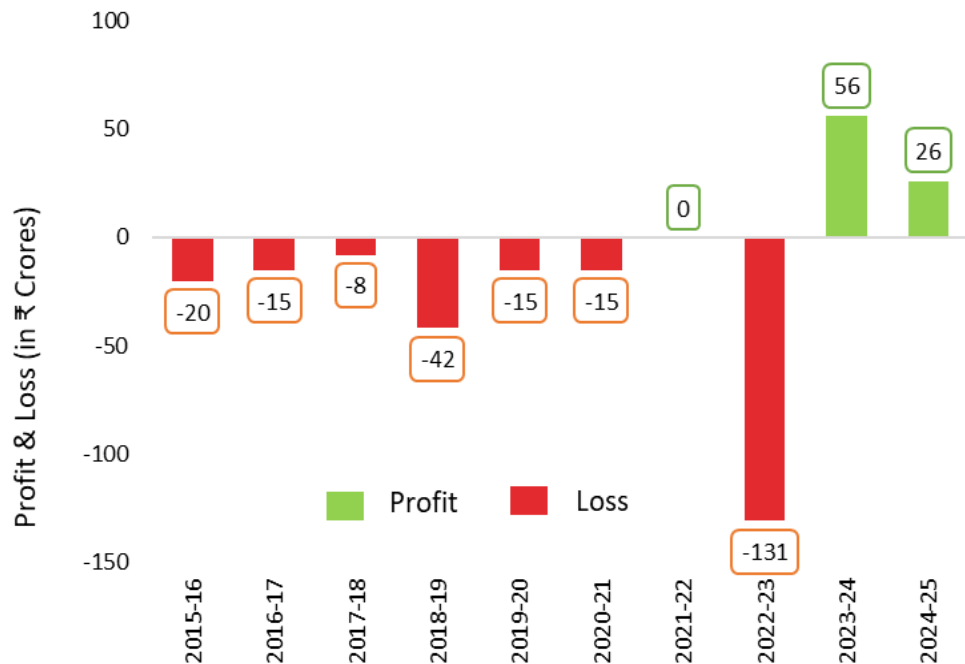
Profit/Loss of CSPDCL (in Rs Crore)



- In 2023-24, a turnaround in profit was observed primarily driven by revenue from aggressive sale of surplus power in the energy market after **discontinuing** supply to **Telangana** from 2023-24 due to long-pending dues.
- In 2023-24 and 2024-25, CSPDCL sold 6,841.9 MU and 5,105.2 MU of surplus power, respectively, enabling it to increase revenue from sale of power at 17,209 crores in 2023-24 and 18,850 crores in 2024-25.
- In 2024-25 a ₹1,000 Cr state government grant and tariff hikes of 10-70 paise/kWh across consumer categories contributed to the standalone surplus in that year.

Financial Parameter: Manipur State Power Distribution Company Limited (MSPDCL)

Profit/Loss of MSPDCL (₹ crore)



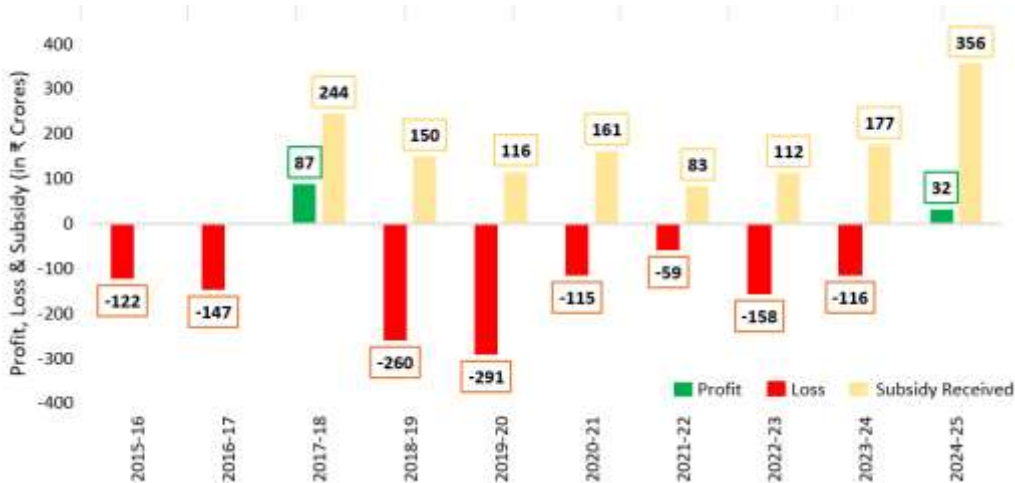
Fact

- 2021-22: Achieved break-even (zero profit/loss)
Supported by ₹11 crore tariff subsidy from Government of Manipur
- Sharp Deterioration in 2022-23:** Posted a heavy loss of ₹131 crore.
Major reasons:
 - Surge in power purchase cost (17% rise in gas price; gas contributed 54% of power)
 - Additional ₹83.52 crore supplementary bills from generators
 - Employee costs jumped 62.7% due to 7th Pay Commission arrears and provisions
- Strong Recovery in 2023-24:**
Recorded profit of ₹56 crore, driven by massive government support of ₹367 crore (including ₹310 crore tariff subsidy).
- 2024-25 Performance:**
Achieved surplus of ₹26 crore, further strengthened by robust Non-Tariff Income of ₹114.38 crore.

Financial Parameter: Power & Electricity Department, Government of Mizoram (PEDM)

Fact

Profit/Loss of PEDM (₹ crore)



Source: ICED

High AT&C Losses:

- Persistently above 30%, significantly eroding revenue

Skewed Consumer Mix:

- Domestic consumers dominate (~60% of retail sales)
- Billed at low subsidized rates of ₹5-7/kWh
- Industrial sales remain minimal (2-3% only)

Weak Revenue Base:

- Struggles to recover high power procurement costs
- Structurally limited ability to generate sufficient revenue from operations

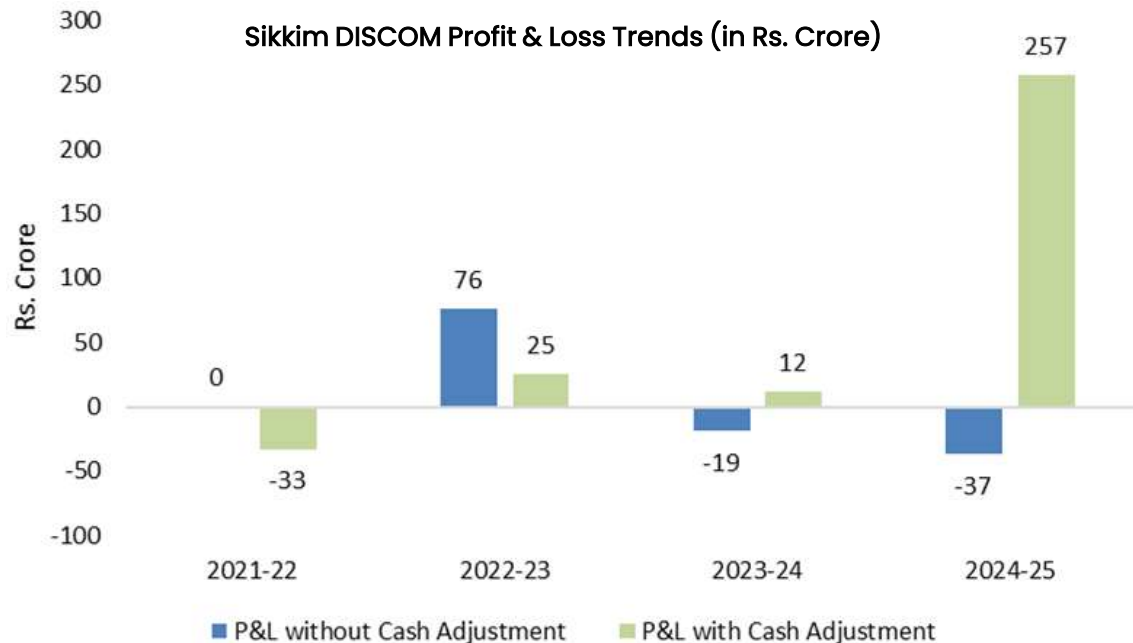
High Fixed Cost Burden:

- Employee costs: 22-23% of total expenses
- Depreciation: 5-6%
- Combined share: ~28-29% of total expenses (last 5 years)

Fragile Financial Position:

- 2024-25: Reported profit of ₹32 Crore — entirely due to ₹356 Crore government tariff subsidy
- 2023-24: Even ₹177 Crore subsidy could not prevent a deficit
- Persistent gap between ARR and realizable revenue at subsidized tariffs

Financial Parameter: SIKKIM (EPDS)



Contrasting picture between P&L with & without Cash Adjustments:

- **Without Cash Adjustments:** The utility reported a profit of ₹76 crore in 2022-23, followed by losses of ₹19 crore and ₹37 crore in 2023-24 and 2024-25, respectively.
- **With Cash Adjustments:** A loss of ₹33 crore in 2021-22, followed by profits of ₹25 crore in 2022-23, ₹12 crore in 2023-24 and a substantial ₹257 crore in 2024-25.

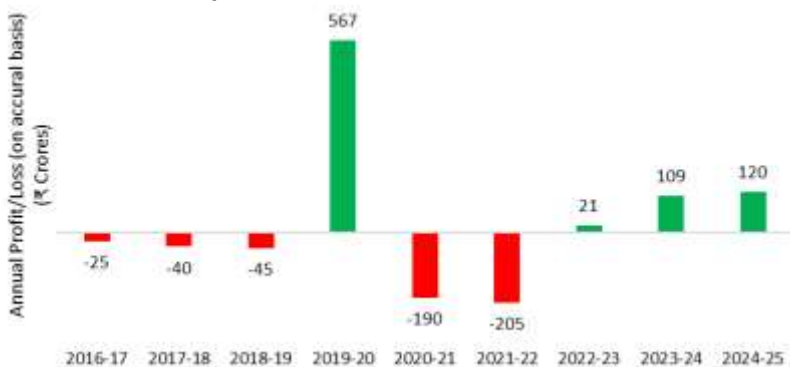
This divergence indicates that non-operational receipts, grants, previous year expense on power cost and other cash adjustments (payments received from consumers) played a significant role in supporting the utility's finances.

Financial Parameter: West Bengal State Electricity Distribution Company Limited (WBSEDCL)

Accumulated Profit and Loss Trends



Yearly Net Profit and Loss Trends



2019-20: Strong Profitability

- Supported by robust revenue from power sales
- Boosted by **one-time gains**:
 - ₹119 crore from Power Purchase Fund
 - ₹166 crore from write-back of provisions
 - ₹70.4 crore from sale of land
- Total one-time gains contributed **~₹567 crore** to the bottom line

2020-21 & 2021-22: Net Losses

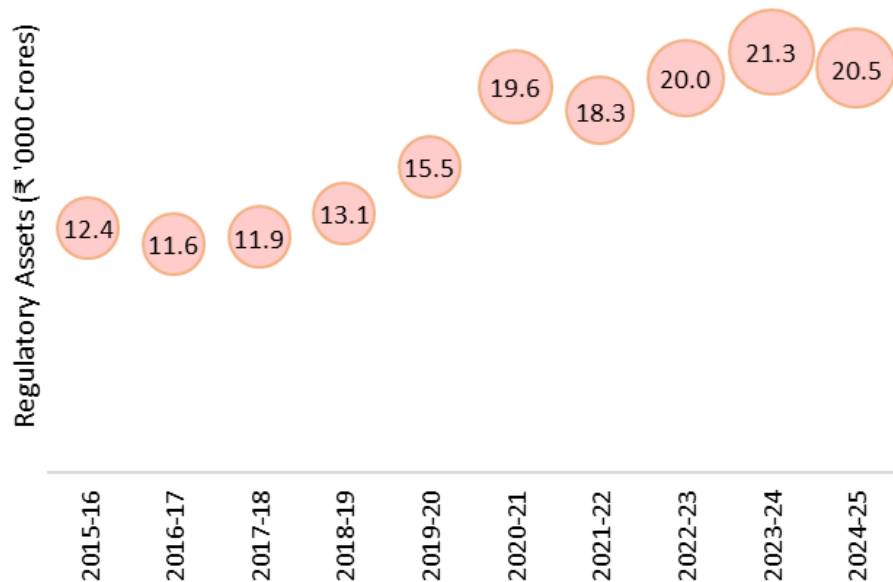
- Primarily due to **adverse regulatory adjustments**
- Impact of Annual Performance Review (APR) and Tariff orders significantly higher than recoverable through tariffs
- Reflects persistent **cost under-recovery and regulatory lag**

2022-23 Onwards: Return to Profitability

- Driven mainly by **regular revenue grants** from the Government of West Bengal to bridge the revenue gap

Financial Parameter: West Bengal State Electricity Distribution Company Limited (WBSEDCL)

Regulatory Assets



Facts:

- Accumulated ₹20,467 crore as of March 31, 2025
- West Bengal ranks 3rd nationally (~20% of India's total)
- WBSEDCL is 2nd highest among all DISCOMs in regulatory assets

Root Cause:

- Systemic **under-recovery of costs** in tariff determination
- Limited use of Monthly Variable Cost Adjustment despite rising power purchase costs
- Large pending true-ups, especially fuel & power purchase costs

Liquidation Plan (as per Supreme Court direction):

- Balance regulatory asset: **₹35,596 crore** (after liquidating ₹6,507 Cr)
- Target: Full liquidation by **March 31, 2028**
- Annual target: **₹17,798 crore** each for 2026-27 & 2027-28 (with carrying cost)

Liquidity Pressures:

- Outstanding dues from Govt departments & local bodies: **₹1,258 crore**
- Government Revenue Grants: **₹3,700 crore** sanctioned (₹1,500 Cr received)

Financial Parameter: West Bengal State Electricity Distribution Company Limited (WBSEDCL)

Rank	Red Card	Name of Utility	State	Ownership	14th IR		13th IR		Grade Movement
					Score	Grade	Score	Grade	
20		SBPDCL	Bihar	State	67.37	A	38.51	B-	Upgrade
21		UHBVNL	Haryana	State	66.32	A	92.83	A+	Downgrade
22		WBSEDCL	West Bengal	State	65.39	A	55.32	B	Upgrade
23	●	APCPDCL	Andhra Pradesh	State	67.53	B	31.52	C	Upgrade
24	●	KSEBL	Kerala	State	63.25	B	58.33	B	-
25		UPCL	Uttarakhand	State	60.97	B	67.50	B*	-
26		MESCOM	Karnataka	State	56.44	B	32.24	C	Upgrade
27	●	APSPDCL	Andhra Pradesh	State	54.24	B	19.52	C	Upgrade
28		HPSEBL	Himachal Pradesh	State	53.69	B	47.87	B-	Upgrade
29		MePDCL	Meghalaya	State	50.90	B	20.54	C	Upgrade
30		JdvVNL	Rajasthan	State	50.47	B	43.70	B-	Upgrade
31	●	APEPDCL	Andhra Pradesh	State	50.46	B	65.12	A	Downgrade
32		TPDDL	Delhi	Private	84.35	B-#	84.81	B-#	-
33		BRPL	Delhi	Private	70.24	B-#	73.98	B-#	-
34		BYPL	Delhi	Private	69.54	B-#	73.73	B-#	-
35		TPSODL	Odisha	Private	63.91	B-*	51.40	B-*	-
36	●	MSPDCL	Manipur	State	48.53	B-	47.51	B-	-
37		JVVNL	Rajasthan	State	47.27	B-	51.30	B-#	-
38		DVVNL	Uttar Pradesh	State	45.04	B-	11.23	C-	Upgrade
39	●	TNPDCL	Tamil Nadu	State	43.92	B-	23.10	C	Upgrade
40		KESCO	Uttar Pradesh	State	42.52	B-	35.64	B-	-
41		MVVNL	Uttar Pradesh	State	38.82	B-	14.39	C-	Upgrade
42		AVVNL	Rajasthan	State	37.51	B-	62.50	B	Downgrade
43		MPPoKVCL	Madhya Pradesh	State	37.14	B-	32.34	C	Upgrade
44		CHESCOM	Karnataka	State	36.85	B-	73.15	A	Downgrade
45		PuVVNL	Uttar Pradesh	State	29.38	C	18.76	C-*	Upgrade
46		MPMKVCL	Madhya Pradesh	State	27.77	C	37.85	B-	Downgrade
47		HESCOM	Karnataka	State	27.15	C	18.74	C	-
48	●	GESCOM	Karnataka	State	18.45	C	57.28	B	Downgrade
49	●	MSEDCL	Maharashtra	State	16.63	C	1.52	C-	Upgrade
50		TSECL	Tripura	State	15.42	C	23.65	C	-
51	●	BESCOM	Karnataka	State	12.44	C-	40.43	B-	Downgrade
52		TGSPDCL	Telangana	State	11.84	C-	11.43	C-	-
53		JBVNL	Jharkhand	State	9.65	C-	5.55	C-	-
54		TGNPDCL	Telangana	State	8.48	C-	16.74	C-*	-

Notes:

● Red card metrics attracted

*Grade override due to ACS-ARR Gap

#Grade override due to regulatory asset disincentive

Facts:

- WBSEDCL has the second-highest Regulatory Assets among all DISCOMs in India.
- Notably, these massive regulatory assets were not factored into the Power Finance Corporation rating methodology. As a result, WBSEDCL received a higher score and a better rating than it might have otherwise achieved.

Key aspects to be considered

- Resource Planning
- Financial Management & Payments
- Under Utilization & Stranded Capacity Assets
- Data Transparency and Disclosures
- Regulatory & Legal Compliance
- PPA Structures

Reflections:

1. How effectively are DISCOMs aligning power purchase strategies, including long-term PPAs, short-term trading, and evening peak procurement with demand forecasts to ensure adequacy of supply, cost efficiency, and transparency?
 - The DISCOMs does not provide in-depth information of its short-term power procurement, resulting in ambiguity over actual source of power purchases.
 - How to optimise fixed capacity charges on under-utilised long-term PPAs and to improve source-wise transparency in short-term and trading power purchases?
 - Resource Planning and Power purchase
 - Evaluation of PPAs and market purchases (including evening peak procurement), with cost, source, and time-of-day optimization.
 - Power purchase strategies alignment with demand forecasts, ensuring adequacy of supply and effective planning.
1. What measures can be taken to optimize fixed capacity charges, employee costs, and operational expenses, while ensuring timely payments to GENCOs and minimizing interest liabilities from delayed dues?
 - Optimisation of employee cost under the cost structure for EDG.
 - Review of timeliness and adequacy of payments to GENCOs and other stakeholders, including management of outstanding dues.
 - Total Interest Liability accrued due to delayed payments

Reflections:

3. How accurate and transparent is the voltage-wise cost accounting and how are regulators ensuring that cross-subsidization remains within permissible limits?
 - A detailed timeline for the adoption of voltage-wise cost accounting.
 - A comparative analysis showing the difference between current category-wise tariffs and the actual VCoS to determine the real extent of cross-subsidization.
3. Whether DISCOMs meeting Renewable Purchase Obligation (RPO) targets and adhering to Merit Order Despatch principles, avoiding procurement of expensive power when cheaper options are available?
4. Are smart meter rollouts and IT/SCADA implementations delivering measurable improvements in metering, billing, collection, and consumer engagement, or are they functioning merely as automated billing tools without advanced features?
 - A sampled report for circles whether the installed smart meters are able to demonstrate improvement in Metering, Billing and Collection practices.
 - Comparison of smart meter rollout versus conventional meters. Whether smart features really active such as TOD tariff, remote disconnection, hourly consumption profile or just providing for automated billing.
 - Technology & digitalisation – assessment of IT/SCADA implementation, adoption of digital billing and collection platforms.
 - A status report on the implementation of digital platforms for automated tariff filing and transparent approvals as envisioned in the Draft NEP 2026.

Reflections:

6. How well are DISCOMs planning and prioritizing capital investments, and do these projects demonstrate a favorable benefit-to-cost ratio with tangible improvements in AT&C losses and reliability indices (SAIDI/SAIFI)?
 - Evaluation of planning and prioritization for new asset purchases and ongoing asset management.
 - Is the DISCOM intentionally neglecting maintenance to justify a full replacement that earns a higher return on equity?
 - What is the Benefit-to-Cost Ratio for major CAPEX projects?
 - Did the investment result in a proportionate reduction in AT&C losses or an improvement in SAIDI/SAIFI metrics?
7. What are the underlying reasons for the widening ACS-ARR gap, and how dependent are DISCOMs on regulatory assets, subsidies, and delayed government payments for sustaining profitability?
8. How responsive are DISCOMs to consumer-centric performance needs in terms of quality of supply, grievance redressal, compensation for SOP violations, and timely provision of new connections, load enhancements, and GEOA applications?
 - Effectiveness of RTI response mechanisms and proactive disclosure practices.
 - Review performance against key reliability indices such as SAIFI, SAIDI, and CAIDI, including trend analysis and benchmarking against regulatory targets.
 - Compensation paid to consumers for SOP violations, complaints reaching CGRF/Ombudsman etc
 - Aging analysis of pending requests for load enhancement, specifically for industrial units and EV charging stations
 - Percentage of GEOA applications rejected or delayed beyond 15 days and their reasons.
7. How transparent is the data available by the DISCOMs regarding their liabilities and assets?