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MINISTRY OF POWER
सत्यमेव जयते

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CONSUMER SERVICE RATING OF DISCOMS (CSRD)

REPORT FY **2024-25**

CONSUMER SERVICE RATING OF DISCOMS (CSRD)

FY 2024-25

मनोहर लाल
MANOHAR LAL

सत्यमेव जयते

विद्युत मंत्री एवं
आवासन और शहरी कार्य मंत्री
भारत सरकार

Minister of Power and
Minister of Housing and Urban Affairs
Government of India

MESSAGE

India's progress towards becoming a developed nation by 2047 is closely linked to the availability of reliable, affordable, and high-quality electricity services for all citizens. The power sector continues to play a pivotal role in enabling economic growth, industrial development, digital transformation, and improvement in the quality of life. As the sector evolves, it is imperative that consumer service delivery keeps pace with rising expectations in an increasingly digital and service-oriented environment.

Over the years, India has made significant strides in strengthening its electricity infrastructure, transitioning from a power-deficit nation to one that is power-sufficient, supported by a robust national grid under the vision of "One Nation – One Grid." As electricity demand continues to grow, the focus must increasingly shift towards infrastructure readiness, operational efficiency, and consumer-centric service delivery, particularly at the distribution level.

Recognizing this need, the Central and State Governments have undertaken a series of reforms to strengthen Distribution Companies (DISCOMs), including investments in network augmentation, smart metering, automation, and digital systems. The recent National Conference on Artificial Intelligence (AI) and Machine Learning (ML) Applications in the Power Sector has highlighted how emerging technologies are revolutionizing utility operations—from predictive maintenance and demand forecasting to enhanced consumer engagement and grid optimization. In this context, the India Energy Stack (IES) represents a transformative step towards building a unified Digital Public Infrastructure for the power sector. By enabling interoperable, secure, and standardized digital platforms, the India Energy Stack will enhance utilities' ability to deliver reliable, transparent, and responsive services.

The Consumer Services Rating of DISCOMs (CSRD) framework plays a key role in advancing consumer-centric power sector reforms by objectively assessing utility's performance across critical service parameters. It encourages DISCOMs to strengthen infrastructure, adopt best practices, and continuously improve service quality.

As we advance toward Viksit Bharat @2047, the digitalization of the power sector would serve as a critical enabler—enhancing operational excellence, and building a resilient energy infrastructure that supports India's aspirations as a global leader.

I am pleased to release the fifth edition of the CSRD Report, covering the performance of DISCOMs for FY 2024-25. I firmly believe that this exercise will continue to make a significant contribution by encouraging DISCOMs to critically assess the quality of services being provided to consumers and to undertake focused improvements where required.

(Manohar Lal)

श्रीपाद नाईक
राज्य मंत्री
नवीन और नवीकरणीय ऊर्जा एवं विद्युत
भारत सरकार

SHRIPAD NAIK
Minister of State for
New and Renewable Energy & Power
**Government of India**

सत्यमेव जयते

MESSAGE

India's power sector is steadily evolving into a more consumer-centric, reliable system. The Consumer Service Rating of DISCOMs (CSRD)—prepared by REC Limited under the guidance of the Ministry of Power—serves as an annual benchmark to assess and enhance service delivery across operational reliability, connections, metering–billing–collection, and fault rectification & grievance redressal. The framework enables consistent measurement, peer comparison and targeted action, helping utilities close service gaps and improve the consumer experience.

Consumer welfare, transparency, and accountability remain central to these efforts. Financial sustainability remains key to enhancing service delivery. Under initiatives such as the Revamped Distribution Sector Scheme (RDSS), Central Government has been supporting States for improving service quality, reliability, and affordability. The reforms under RDSS address legacy inefficiencies and support DISCOMs for investing in infrastructure, technology, and consumer services. Smart meter deployment is further strengthening service quality by enabling accurate billing, near real-time consumption insights, and greater control for consumers, while helping utilities optimize operations and integrate renewable energy more efficiently.

The CSRD framework remains a vital instrument, enabling utilities to benchmark performance, adopt best practices, strengthen operations, and remain accountable to the citizens they serve. By identifying areas for improvement, publishing service quality ratings, and providing comprehensive insights, the framework supports DISCOMs in becoming more responsive, efficient, and consumer focused.

The CSRD Report has assessed DISCOM performance on key consumer-centric service parameters, enabling utilities to self-evaluate outcomes and benchmark themselves against peers and national averages. We now welcome the fifth edition of this report, prepared using the same methodology as earlier editions, and I am confident it will offer DISCOMs valuable insights into practices across utilities — supporting their journey to become more financially robust, consumer focused, and operationally efficient.
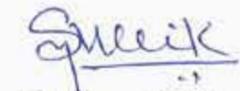
(Shripad Naik)

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MESSAGE

India's power sector is experiencing a transformative shift, driven by the rapid adoption of renewable energy, digitalization, decentralized generation models, and a decisive move toward consumer-centric service delivery. To objectively evaluate and benchmark DISCOM performance, the Consumer Service Rating of DISCOMs (CSRD) Report was launched in 2021. I am pleased to present the fifth edition of the CSRD Report for FY 2024-25. Through rigorous assessment and peer comparison for FY 2024-25, the CSRD Report empowers DISCOMs to identify performance gaps, adopt best practices, and drive continuous improvement in service delivery and consumer satisfaction.

In today's age of rapid digitalization, the Ministry recognizes that AI and ML are indispensable in building self-optimizing, resilient, and consumer-centric distribution networks, and actively a Digital encourages deepening digitalization in DISCOMs, promoting AI/ML adoption. To catalyze this transition, the Ministry is pioneering the development of the India Energy Stack (IES) Public Infrastructure designed to create a connected, intelligent, and interoperable energy ecosystem that will define the future of India's power sector

I extend my sincere appreciation to the Ministry of Power, State Governments and their distribution utilities, and REC Limited for their unwavering commitment and collaborative efforts in ensuring the continued success of this flagship initiative. Together, we are building a power sector that is efficient, inclusive, and future-ready one that truly serves the aspirations of every Indian citizen.
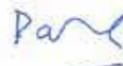
(Pankaj Agarwal)

जितेन्द्र श्रीवास्तव, भा.प्र.से.
अध्यक्ष एवं प्रबंध निदेशक
Jitendra Srivastava, IAS
Chairman & Managing Director

आर ई सी
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Endless energy. Infinite possibilities
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Message

Over the past decade, national-level policies and initiatives undertaken by the Government of India have fundamentally reshaped the power sector with an unwavering focus on sustainability, reliability, and consumer-centricity. These reforms reflect a comprehensive vision—strengthening supply-side capacity, reinforcing network infrastructure, and, most critically, transforming the last-mile delivery of electricity to consumers.

Distribution reforms constitute the cornerstone of this transformation, directly impacting both consumer experience and utility performance. Recognizing this strategic imperative, the Government of India launched the Revamped Distribution Sector Scheme (RDSS) in 2021 as a comprehensive initiative to address the operational, financial, and service-related challenges confronting DISCOMs.
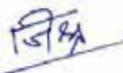
RDSS has established a robust foundation for distribution sector transformation through large-scale digitalization and infrastructure modernization. Smart metering stands as a key pillar, encompassing consumer metering complemented by extensive feeder metering, DT metering, and integrated IT/OT system upgrades. Smart meters are transforming consumer services through accurate billing, real-time consumption insights, and flexible payments, while providing DISCOMs with data for analytics, outage management, and demand forecasting.

Beyond conventional infrastructure and operational technologies, RDSS investments in emerging transformative technologies —including artificial intelligence, machine learning, advanced analytics platforms, and predictive modeling—are enabling DISCOMs transition to proactive operations and improve performance metrics.

Today's distribution sector operates in an increasingly complex environment characterized by rapidly evolving demand patterns, rising consumer expectations, and growing integration of distributed energy resources. These shifts are pushing DISCOMs to move beyond traditional models toward more agile, digital, and consumer-centric operations. In this transformative landscape, the Consumer Services Rating of DISCOMs (CSRD) provides a transparent framework to assess and benchmark utility performance across key service parameters, fostering accountability, peer learning, and driving evidence-based improvements.

Having established credibility through its first four editions (FY 2021–2024), the fifth CSRD Report for FY 2025 highlights DISCOMs' progress in digital adoption, infrastructure strengthening, and consumer-focused operations. REC Limited remains committed to leveraging CSRD as a catalyst for continuous improvement in efficiency, sustainability, and service quality across power distribution landscape.

I express my sincere appreciation to the Ministry of Power, State Governments, DISCOMs, regulators, and all stakeholders for their guidance, cooperation, and support in the successful publication of this report. I also acknowledge the dedicated efforts of all teams involved in this exercise. I am confident that the insights from the CSRD Report FY 2024-25 will contribute meaningfully to improving consumer satisfaction and building a resilient, efficient, and future-ready power distribution sector for India.

(Jitendra Srivastava)

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EXECUTIVE SUMMARY

Power systems and their broader ecosystems differ widely across countries, shaped by local conditions, economic structures, and social priorities. As a result, building an effective network that reliably serves end users requires a holistic approach. With more than 34 crore consumers and a vast service footprint, India operates one of the world's largest and most intricate power systems, now unified under the "One Nation, One Grid, One Frequency" framework following the creation of the national grid.

Worldwide, digitalization is reshaping the utility industry, especially in distribution, where it is driving operational efficiency and enhancing customer experience. Indian distribution utilities are actively adopting digital tools—ranging from digital payment platforms and smart grids to Advanced Metering Infrastructure (AMI) and web/mobile applications—to raise service performance. Looking ahead, the focus is on ensuring self-sufficiency and financial resilience in the distribution segment while maintaining strict compliance with mandated service standards for consumers.

Over time, the Government of India has introduced targeted programs to strengthen the distribution sector. These efforts aim to build out distribution networks, expand electricity access to homes and villages, and improve the operational and financial stability of Distribution Companies (DISCOMs). Flagship initiatives such as Saubhagya, the Integrated Power Development Scheme (IPDS), Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), Ujwal DISCOM Assurance Yojana (UDAY),

Rooftop Solar (RTS), PM Surya Ghar: Muft Bijli Yojna and the Revamped Distribution Sector Scheme (RDSS) have collectively transformed the functioning of DISCOMs and Power Departments (PDs), enhancing service delivery to end consumers.

The Electricity (Rights of Consumers) Rules, 2020, along with subsequent amendments, have further reinforced consumer entitlements and clarified the service obligations of distribution utilities. These rules establish detailed parameters for service delivery, including new connections, metering, billing, digital payment options, reliable supply, support for prosumers, and grievance redressal.

Additionally, the rules establish a compensation framework for consumers in instances where DISCOMs fail to meet the minimum performance standards.

These rules paved the way for the launch of the Consumer Service Rating of DISCOMs (CSRD) report in 2021. The report evaluates DISCOMs' performance in consumer service by setting baseline standards and expectations, including prompt and accurate metering and billing, timely and effective grievance redressal, and fair, transparent tariff-setting.

The CSRD report aims to craft a comprehensive strategy to elevate consumer satisfaction and foster cross-disciplinary learning. It examines a range of consumer-centric services, using the Electricity Rules' service standards for assessing DISCOMs across key areas, and it monitors and evaluates their compliance with and implementation of these rules.

Drawing on insights from the first four editions (FY2020-21, FY2021-22, FY2022-23, and FY2023-24), the fifth edition—CSRD 2024-25 is now being released. The grading exercise maintains last year's structural framework and the rigorous methodology used in earlier editions. It relies on meticulous data collection through a centralized online portal, enabling an in-depth analysis of multiple operational dimensions across four broad parameters.:

Operational Reliability	Connections and other Services	Metering, Billing and Collection	Fault Rectification and Grievance Redressal

For the CSRD-2025 assessment, outreach was made to 76 DISCOMs. Ten were removed from the exercise due to non-response or inadequate data submissions, leaving 66 DISCOMs for evaluation—10 private and 56 state-owned. Each was graded based on scores calculated from a defined methodology. DISCOMs were further classified as urban or rural according to their consumer profiles. In line with RDSS guidelines, 14 States and Union Territories—Andaman & Nicobar Islands, Arunachal Pradesh, Assam, Himachal Pradesh, Jammu & Kashmir, Ladakh, Lakshadweep, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, and Uttarakhand—are recognized as Special Category States (SCS), as noted in the report.

To present a detailed picture of performance, circle-level data was gathered from DISCOMs for most indicators, ensuring fine-grained analysis. The grading framework is anchored on four broader parameters, broken into 23 sub-metrics, offering a comprehensive evaluation across multiple dimensions. Based on the submitted data and resulting scores, DISCOMs receive one of seven grades: A+, A, B+, B, C+, C, or D. This tiered grading is intended to stimulate healthy competition and encourage continuous improvements in service quality.

OUT OF THE 66 DISCOMS BEING RATED:

| 6 DISCOMs have secured the highest grade i.e. A+. | No DISCOM has secured the lowest grade i.e., D | 27 DISCOMs have secured the average grade i.e. "B+" |

Number of DISCOMs across Grades

66

C+, 1 C, 1 A+, 6
B, 10
A, 21
B+, 27
D, 0

Grade, No. of DISCOMs

■ A+ ■ A ■ B+ ■ B ■ C+ ■ C ■ D

Consumer Spread across Grades

34.5 Cr.

C, 0.49, 1%
C+, 0.55, 2%
A+, 1.08, 3%
B, 2.46, 7%
A, 13.36, 39%
B+, 16.53, 48%
D, 0.00, 0%

Grade, Consumers in crore, (% of consumers)

■ A+ ■ A ■ B+ ■ B ■ C+ ■ C ■ D
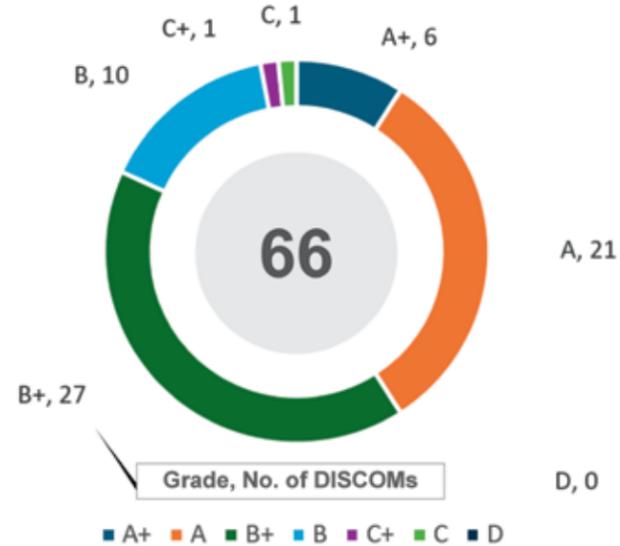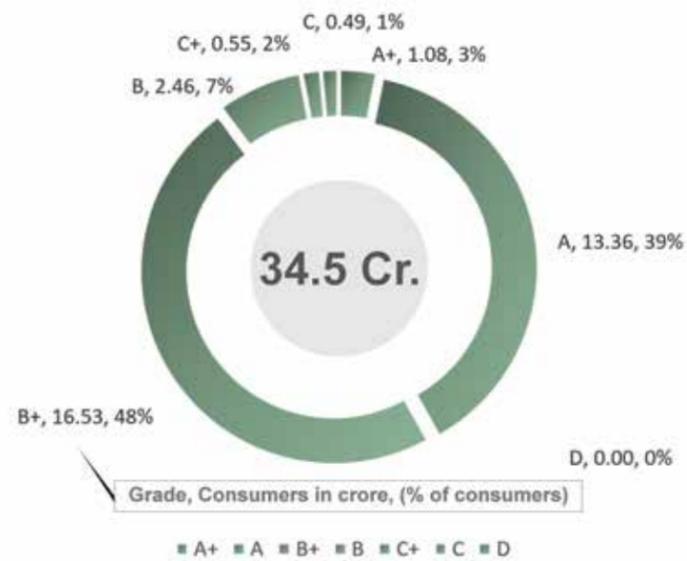
IMPROVEMENT IN PERFORMANCE OVER THE YEARS

DISCOMs' performance has strengthened, reflected by a higher proportion receiving top grades and more consumers benefiting from improved services, signaling a positive national trajectory. Simultaneously, fewer DISCOMs and consumers fall into the lower bands (C and D), indicating progress at the bottom end of the scale. The graphic below summarizes these improvements for FY 2024–25.

National Average Scores/Grades shifting towards improvement, Over the years

— Count-2025 — Count-2024 — Count-2023

The national average score increased by ~6%, leading to an improvement in the National average grade.

The national average score increased by ~4%.
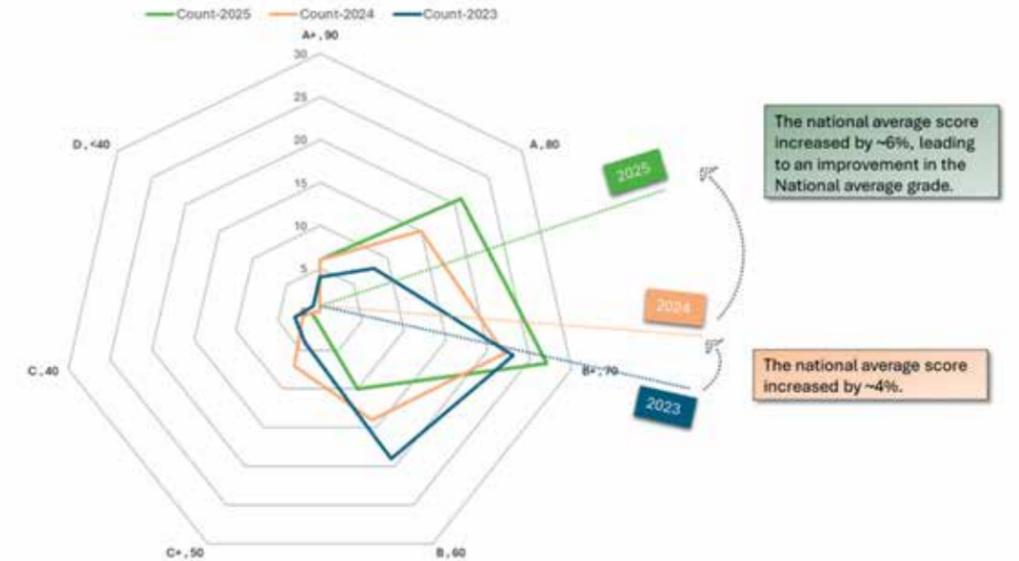
Positive Trends in DISCOM Performance Grades (A+ to D) over 3 fiscal years: Over the past three fiscal years, the distribution of DISCOMs across the seven grading categories (A+ to D) reflects a clear improvement in overall performance, with a gradual shift from lower to higher grades. By FY2024–25, the number of DISCOMs in the top categories (A+, A, and B+) has nearly doubled compared to FY2022–23. At the same time, the share of DISCOMs in the lower grades (below B+) has steadily declined, making FY2024–25 the most favorable distribution among the three years. Nevertheless, there is still substantial scope for progress. Additional efforts are needed to move more DISCOMs into the top tiers and achieve a distribution that progressively declines from a peak at A+.

■ FY2024–25 — FY2023–24 — FY2022–23
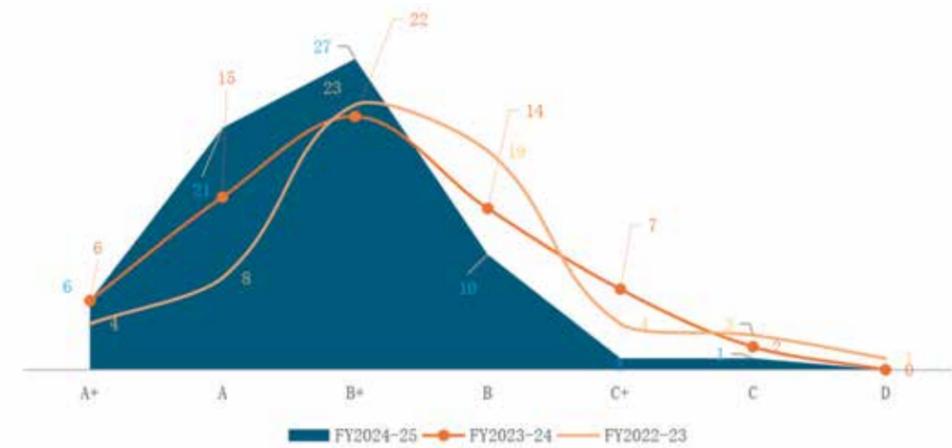
Grades obtained by DISCOMs and Power Departments for FY2024-25

The finalized dataset covered 66 DISCOMs, which together serve approximately 34.5 crore consumers, and all of them were included in the grading assessment. While several DISCOMs attained top grades, those in the lower categories need to improve in certain areas. The table below presents the grades secured by DISCOMs across each of the four key parameters.

S. No.	States / UT	DISCOM	Operational Reliability (45 Marks)	Connection and Other Services (10 Marks)	Metering, Billing and Collection (35 Marks)	Fault Rectification and Grievance Redressal (10 Marks)	Final Grade (100 Marks)	Change in Grade from FY24
1	Delhi	BRPL	A+	A	A	A+	A+	↔
2	Delhi	BYPL	A+	A	A	A+	A+	↔
3	Delhi	TPDDL	A+	A	A	A+	A+	↔
4	Maharashtra	AEML	A+	A+	B+	A+	A+	↔
5	Maharashtra	TPCL	A+	A+	A+	A+	A+	↔
6	Uttar Pradesh	NPCL	A+	A	A+	A+	A+	↔
7	Andhra Pradesh	APCPDCL	A+	B+	B	A+	A	↔
8	Andhra Pradesh	APEPDCL	A+	A	B+	A	A	↔
9	Andhra Pradesh	APSPDCL	A+	A+	C+	A+	A	↔
10	Assam	APDCL	A+	B+	B+	B	A	↔
11	Bihar	NBPDCL	A	B+	A	A+	A	↔
12	Gujarat	DGVCL	A+	A+	C+	A+	A	↔
13	Gujarat	UGVCL	A+	A+	C+	A+	A	↑
14	Haryana	UHBVNL	A	B+	B+	A+	A	↑
15	Karnataka	BESCOM	A+	A+	B+	A	A	↑
16	Manipur	MSPDCL	A+	A	A	A	A	↔
17	Odisha	TPCODL	A+	B	B+	A+	A	↑
18	Odisha	TPNODL	A+	B+	B+	A	A	↑
19	Odisha	TPSODL	A+	B+	B	A	A	↑
20	Odisha	TPWODL	A+	A	B	A+	A	↑
21	Tamil Nadu	TNPDCL	A+	A	B	A+	A	↔
22	Telangana	TGNPDCL	A+	B+	B+	A+	A	↔
23	Telangana	TGSPDCL	A+	B+	B+	A+	A	↔
24	Tripura	TSECL	A+	B+	B	A+	A	↑
25	Uttar Pradesh	DVVNL	A	B+	B+	A+	A	↑
26	Uttar Pradesh	KESCO	A+	A	B	A+	A	↔
27	Uttarakhand	UPCL	A	B+	B	A+	A	↔
28	Bihar	SBPDCL	A	D	A	A	B+	↔
29	Delhi	NDMC	A+	B	B	B	B+	*
30	Goa	Goa PD	A+	A	C	A	B+	↔
31	Gujarat	MGVCL	A+	A	C	A+	B+	↔
32	Gujarat	PGVCL	A+	A	D	A+	B+	↔
33	Haryana	DHBVNL	B+	B+	B+	A+	B+	↔

S. No.	States / UT	DISCOM	Operational Reliability (45 Marks)	Connection and Other Services (10 Marks)	Metering, Billing and Collection (35 Marks)	Fault Rectification and Grievance Redressal (10 Marks)	Final Grade (100 Marks)	Change in Grade from FY24
34	Himachal Pradesh	HPSEBL	A+	B	C	B	B+	↑
35	Jammu & Kashmir	KPDCL	B+	B	B	A	B+	↑
36	Karnataka	CESCOM	B+	A+	C	A+	B+	↔
37	Karnataka	GESCOM	A+	A	C+	A+	B+	↔
38	Karnataka	HESCOM	B+	A	C+	B+	B+	↑
39	Karnataka	MESCOM	A	A+	C+	B	B+	↑
40	Kerala	KSEBL	A+	A	C	A	B+	↔
41	Ladakh	Ladakh PDD	A+	B	C	B	B+	↑
42	Lakshadweep	Lakshadweep ED	A+	B	C	B+	B+	↑
43	Madhya Pradesh	MPMKVVCL	A	A	B	A+	B+	↔
44	Madhya Pradesh	MPPaKVVCL	A	A	C	A+	B+	↓
45	Madhya Pradesh	MPPoKVVCL	A	A	C+	A+	B+	↔
46	Maharashtra	BEST	A+	A	C+	B+	B+	↔
47	Maharashtra	MSEDCL	A+	A	C+	A+	B+	↔
48	Meghalaya	MePDCL	A+	B+	C+	B+	B+	↔
49	Puducherry	PED	A+	B+	D	B+	B+	↔
50	Punjab	PSPCL	A	C	B	A	B+	↔
51	Rajasthan	AVVNL	B+	C+	C+	A+	B+	↔
52	Uttar Pradesh	PuVVNL	B+	A	C+	A+	B+	↔
53	Uttar Pradesh	PVVNL	B+	B+	B	A+	B+	↔
54	West Bengal	WBSEDCL	A+	A	C+	A	B+	↔
55	Andaman & Nicobar Islands	A&N PD	B+	B+	D	B+	B	↑
56	Arunachal Pradesh	Arunachal PD	B	A	B+	B	B	↑
57	Chhattisgarh	CSPDCL	A	B+	D	A	B	↔
58	Jammu & Kashmir	JPDCL	B+	C+	C+	B+	B	↔
59	Kerala	TCED	A	B+	C	B+	B	↔
60	Mizoram	Mizoram PD	A	C+	C	C+	B	↑
61	Nagaland	Nagaland PD	A	C	D	B	B	↑
62	Rajasthan	JVVNL	B	B+	C+	A+	B	↔
63	Sikkim	Sikkim PD	A	C	C+	B	B	↑
64	Uttar Pradesh	MVVNL	B+	D	C+	A+	B	↔
65	Jharkhand	JBVNL	B+	D	C	D	C+	↔
66	Rajasthan	JdVVNL	C+	D	C	A+	C	↓

Excluded DISCOMs

S.No.	States / UTs	DISCOM	Remarks
1	Chandigarh	CPDL	Non Participation
2	DNH and DD	DNDDDPDCL	Non Participation
3	Gujarat	TPL Dahej	Non Participation
4	Gujarat	TPL Ahmedabad	Non Participation
5	Gujarat	TPL Surat	Non Participation
6	Karnataka	HRECS	Non Participation
7	West Bengal	CESC	Non Participation
8	West Bengal	IPCL	Non Participation
9	Telangana	CESS	Non Participation
10	West Bengal	DVC	Non Participation

Note:
1. Serial no. across the tables DO NOT represent any ranking whatsoever amongst the graded DISCOMs
2. SCS – Special Category State (states as per RDSS guideline)
* Discom did not participate in previous editions
↑ Grades higher than CSRD-2024
↔ Same grades as CSRD-2024
↓ Lower grades than CSRD-2024

Consumer expectations from distribution utilities have risen significantly over the years. The rapid pace of urbanization, increased electrification, and improvements in living standards have led to higher demand not only for uninterrupted power supply but also for superior service quality, faster response times, and accessible customer support systems. Modern consumers expect services comparable to other utility sectors such as telecommunications and banking—characterized by digital accessibility, real-time information, and quick resolution of issues.

A structured rating framework such as CSRD enables a systematic assessment of how well DISCOMs are responding to these evolving expectations and encourages adoption of consumer-centric practices. The rating exercise creates healthy competition, motivating utilities to benchmark against best performers and implement service improvements.

Technological advancements reinforce the need for a comprehensive evaluation. Deployment of smart grids, smart meters, digital billing platforms, and advanced data analytics has fundamentally transformed power distribution operations, offering significant potential to improve demand-supply management, reduce losses, enhance reliability, and improve customer engagement. However, technology deployment alone does not guarantee improved outcomes. The effective utilization of these investments requires continuous performance monitoring and outcome-based assessment. Consumer service ratings incentivize DISCOMs to leverage technologies efficiently and translate technological investments into improved service delivery and operational efficiency. The CSRD framework evaluates not just technology adoption but its effective implementation in enhancing consumer experience.

Growing complexity of distribution infrastructure, driven by network expansion, system strengthening, and grid modernization, presents additional operational challenges. A comprehensive rating exercise helps identify operational bottlenecks, highlight areas requiring corrective action, and promote best practices in managing system complexity.

Moreover, the distribution sector is undergoing broader transition towards sustainability, with increasing integration of renewable energy, distributed generation, rooftop solar, electric vehicle charging infrastructure, and evolving consumption patterns. India is witnessing a significant shift, necessitating a dynamic and holistic evaluation framework to ensure distribution utilities are adapting effectively to these structural changes and aligning with national energy transition and sustainability objectives.

By evaluating DISCOMs across key consumer service parameters—namely Operational Reliability, Connection and Other Services, Metering, Billing and Collection, and Fault Rectification and Grievance Redressal—the CSRD promotes a consumer-focused approach to performance assessment. The framework enables:

- Benchmarking of utilities against peers and established best practices
- Fostering a competitive environment where service quality and customer satisfaction are prioritized.
- Self-assessment through standardized performance indicators, allowing DISCOMs to identify gaps and monitor progress.
- Targeted interventions to improve service outcomes for consumers.

The structured assessment provides holistic view of DISCOM performance, moving beyond traditional financial and technical metrics to focus on actual consumer experience.

The CSRD has garnered significant interest among key stakeholders including utilities, regulators, policymakers, and consumers. Insights from previous editions have:

- Contributed to positive behavioral change by encouraging DISCOMs to strengthen service delivery.
- Enhanced operational accountability through peer comparison and public disclosure.
- Enabled regulators to identify systemic issues and design targeted interventions
- Empowered consumers with information about utility performance.

Continued public disclosure of ratings enhances transparency and reinforces accountability, making the CSRD a critical tool in advancing consumer-centric reforms in the power distribution sector.

In an era of rapid transformation, the CSRD serves as an essential instrument for driving consumer-centricity, promoting accountability, and fostering continuous improvement. By providing comprehensive, objective, and transparent assessment of distribution utility performance, the rating exercise aligns utility operations with policy objectives, regulatory standards, and consumer expectations—ultimately contributing to a more efficient, reliable, and consumer-responsive power distribution system in India.

1

NEED FOR A COMPREHENSIVE RATING EXERCISE

The Ministry of Power, Government of India, has undertaken transformative policy and regulatory reforms aimed at strengthening the power distribution sector and improving service delivery to electricity consumers. The Consumer Services Rating of DISCOMs (CSRD) serves as a strategic assessment tool that complements these reform initiatives by providing a transparent, objective, and data-driven evaluation of how effectively distribution utilities are implementing policy measures. By systematically evaluating consumer service performance, the CSRD creates an accountability framework that drives continuous improvement and ensures sectoral reforms translate into tangible outcomes for electricity consumers.

The imperative for a comprehensive consumer services rating stems from multiple interrelated factors that underscore the importance of accountability, service quality, and consumer satisfaction. The Electricity (Rights of Consumers) Rules, 2020, along with subsequent amendments, have played a pivotal role in clearly defining the rights, entitlements, and service expectations of electricity consumers. These rules establish minimum standards across critical service areas, including reliability of supply, transparency in billing and metering, timely provision of connections, and effective grievance redressal.

By laying down measurable service benchmarks, the regulatory framework necessitates that DISCOMs establish robust internal monitoring mechanisms to assess compliance and address service gaps. However, implementation quality varies significantly across utilities, making independent assessment essential for driving accountability.

76 DISCOMs Approached

66 DISCOMs Participated

180 Days Exercise

34+ Core Consumers

CSRD AT A GLANCE

TASK FORCE CREATION INDUSTRY EXPERTS INVOLVEMENT

4 KEY PARAMETERS
23 SUB PARAMETERS

7 STEP APPROACH
4 STAGES OF VERIFICATION

750 DATA POINTS PER DISCOM
OR | CoS | MBC | FRGR

22 REGIONAL OFFICES INVOLVED

Comprehensive Framework

Grade Spread of DISCOMs

A+	A	B+	B	C+	C	D	Excluded
6	21	27	10	1	1	0	10
Delhi BRPL BYPL TPDDL **Maharashtra** TPCL AEML **Uttar Pradesh** NPCL	**Andhra Pradesh** APCPDCL APEPDCL APSPDCL **Assam** APDCL **Bihar** NBPDCL **Gujarat** DGVCL UGVCL **Manipur** MSPDCL **Odisha** TPCODL TPNODL TPWODL TPSODL **Tamil Nadu** TNPDCL **Telangana** TGNPDCL TGSPDCL **Uttar Pradesh** KESCO DVVNL **Uttarakhand** UPCL **Karnataka** BESCOM **Tripura** TSECL **Haryana** UHBVNL	**Bihar** SBPDCL **Gujarat** MGVCL PGVCL **Goa** Goa PD **Haryana** DHBVNL **Karnataka** CESCOM GESCOM MESCOM HESCOM **Kerala** KSEBL **Madhya Pradesh** MPMKVVCL MPPoKVVCL MPPaKVVCL **Maharashtra** BEST MSEDCL **Meghalaya** MePDCL **Punjab** PSPCL **Uttar Pradesh** PVVNL PuVVNL **West Bengal** WBSEDCL **Delhi** NDMC **Lakshadweep** Lakshadweep ED **Himachal Pradesh** HPSEBL **Rajasthan** AVVNL **Ladakh** LPDD **Puducherry** PED **Jammu & Kashmir** KPDCL	**Chhattisgarh** CSPDCL **Kerala** TCED **Rajasthan** JVVNL **Uttar Pradesh** MVVNL **Arunachal Pradesh** Arunachal PD **Sikkim** Sikkim PD **Jammu & Kashmir** JPDCL **Mizoram** Mizoram PD **Andaman & Nicobar Islands** A&N PD **Nagaland** Nagaland PD	**Jharkhand** JBVNL	**Rajasthan** JdVVNL		**DNH & DD** DNDDDPDCL **Gujarat** TPLA TPLD TPLS **West Bengal** CESC IPCL DVC **Chandigarh** CPDL **Karnataka** HRECS **Telangana** CESS

RATING OF UTILITIES

This chapter provides an overview of each DISCOM's performance across the four core service parameters. The evaluation applied defined methodologies to DISCOM-submitted data to generate scores, which were then converted into grades using a approved grading framework, resulting in a comprehensive grade table. The subsequent section examines DISCOM performance across sub-parameters by ownership structure, explains the weightages assigned to each of the four parameters, and highlights key statistics such as national maximum, minimum, and average values for select sub-parameters.

2.1 DISCOMS PERFORMANCE – OVERVIEW

A total of 76 DISCOMs were approached, of which 10 were excluded due to non-response. This resulted in 66 DISCOMs being considered for the grading exercise. As noted earlier, data and information were collected for these 66 DISCOMs, which together serve approximately 34.47 crore consumers, and were accordingly included in the evaluation and rating process.

- Out of the 66 DISCOM's, 15 are Special Category DISCOMs from 14 states and union territories, while 10 are Urban DISCOM's from 5 states and union territories.
- 6 DISCOMs scored an A+ grades of which five TPCL, BRPL, BYPL, AEML and TPDDL are Urban DISCOMs except NPCL.
- Maximum concentration of DISCOMs - 58 Nos (88%) is observed across A, B+ and B grade.

> National Average (Score) : 76.97/100
>
> DISCOMs Participating: 66 Nos.
>
> DISCOMs above national average: 29 Nos.

2.1.1 DISCOMS PERFORMANCE – Ownership and Demographic Perspective

Evaluating DISCOM performance through the lenses of ownership, demographics, and geography is crucial, as inherent factors like administrative structures and terrain can shape outcomes. Understanding these dimensions offers valuable insight into the operational challenges and advantages different DISCOMs encounter.

The table below presents the performance grades for 10 private and 56 state-owned DISCOMs. Notably, 37 DISCOMs fall within the B+ and B categories. None of the private DISCOMs received a grade below B+, while among state-owned DISCOMs, none was assigned the lowest grade, D.

DISCOM ownership perspective								
Grades	A+	A	B+	B	C+	C	D	Total
Private DISCOMs	6	4	0	0	0	0	0	10
State Owned DISCOMs	0	17	27	10	1	1	0	56
Total	**6**	**21**	**27**	**10**	**1**	**1**	**0**	**66**

DISCOM demography Perspective								
Grades	A+	A	B+	B	C+	C	D	Total
Urban DISCOMs	5	1	3	1	0	0	0	10
General DISCOMs	1	20	24	9	1	1	0	56
Total	**6**	**21**	**27**	**10**	**1**	**1**	**0**	**66**

2.1.2 Sub-parameters coverage across broad parameters

There are 23 pre-identified sub-parameters across the 4 major parameters, which are evaluated individually in subsequent sections.

OPERATIONAL RELIABILITY	CONNECTIONS AND OTHER SERVICES	METERING, BILLING & COLLECTIONS	FAULT RECTIFICATION AND GRIEVANCE REDRESSAL
45 Marks	10 Marks	35 Marks	10 Marks

Number of Sub parameters covered - 23			
Weightage			
1. Hours of Supply	1. Alignment of Regulations with Industry best practices	1.Average time (days) taken for replacement of defective meters	1. Consumers registered at 24X7 customer care call centre
2. Interruption Index	2. Presence of pre-determined demand charges for new connections up to 150kW	2. Bills generated based on actual meter reading	2. Average Call Waiting Time (in seconds)
3. DT Failure rate	3. Applications processed through online portal	3. Bills generated on the basis of non-manual meter reading	3. Consumers receiving outage related updates
	4. Average deviation from SoP in time taken for providing connections	4. Billing frequency for domestic category consumers as per regulations	4. Deviation from specified time for complaint resolution
	5. No. of Prosumers/Lakh	5. Bills generated for domestic consumers in a year	5. Grievance redressal mechanism (2 tier)
		6. Consumers receiving billing updates on mobile	6. Number of CGRF's per 1 Lakh consumers
		7. % of prepaid consumers	
		8. No. of tariff categories	
		9. % of consumers paying digitally	

2.2 OPERATIONAL RELIABILITY (OR)

This parameter evaluates how efficiently DISCOMs deliver uninterrupted power to end consumers. It may be impacted by multiple factors including inadequate and inefficient O&M practices, faulty equipment, improper load management for a prolonged period etc.

The lower operational reliability may have varying impact on the DISCOMs in terms of Reduced customer satisfaction levels, Loss of revenue due to operational disruptions and Increased cost of Operations and Maintenance (O&M).

The key sub-parameters Hours of Supply (HoS), Interruption Index (II), and Distribution Transformer (DT) failure rate, across three categories of consumers (rural, urban and industrial) are considered to overall assess the OR. The data for FY-25 corresponding to each sub-parameter has been collected for analysis.

ANALYSIS OF SUB-PARAMETERS

2.2.1 Hours of Supply (HoS)- Urban

DISCOM	HoS
AEML	24.00
TPCL	24.00
BYPL	24.00
TPDDL	24.00
BRPL	23.99
MSPDCL	23.92
UGVCL	23.89
TPNODL	23.86
MGVCL	23.84
Goa PD	23.84
TGNPDCL	23.83
WBSEDCL	23.83
TNPDCL	23.82
NPCL	23.82
TPCODL	23.82
Lakshadweep ED	23.81
DGVCL	23.79
APEPDCL	23.78
KESCO	23.76
TSECL	23.75
APSPDCL	23.75
PGVCL	23.74
HPSEBL	23.73
PED	23.71
TPSODL	23.69
TGSPDCL	23.61
MPPoKVVCL	23.56
BESCOM	23.53
APCPDCL	23.52
MESCOM	23.52
MVVNL	23.51
TPWODL	23.48
KSEBL	23.44
APDCL	23.43
HESCOM	23.42
NDMC	23.39
AVVNL	23.39
GESCOM	23.37
BEST	23.33
UPCL	23.32
PVVNL	23.31
Sikkim PD	23.29
UHBVNL	23.29
TCED	23.28
CESCOM	23.24
Mizoram PD	23.19
CSPDCL	23.10
MePDCL	23.06
DHBVNL	23.00
MSEDCL	22.96
SBPDCL	22.90
MPMKVVCL	22.87
KPDCL	22.78
NBPDCL	22.77
PSPCL	22.75
Ladakh PDD	22.63
DVVNL	22.60
A&N PD	22.58
MPPaKVVCL	22.55
PuVVNL	22.54
JVVNL	22.51
JBVNL	22.41
JPDCL	22.33
Nagaland PD	22.02
JdVVNL	22.01
Arunachal PD	21.33

The Consumer Rules 2020 (Rule10) on Reliability of Supply, stipulates the distribution licensee to provide 24x7 power supply to all consumers. Hours of Supply (HoS) is a crucial indicator of the reliability of the power supply and the higher levels of HoS indicate the robustness of the power distribution system.

FAST FACTS

National Maximum:
24.00 Hours

National Average:
23.32 Hours

National Minimum:
21.33 Hours

TAKEAWAYS

- Leading DISCOMs (24 hours) are Delhi (BYPL & TPDDL) and Maharashtra (TPCL & AEML)
- DISCOMs below national average HoS – 26 DISCOMs
- DISCOM equal or above national average HoS- 40 DISCOMs
- Urban DISCOM below National average – Only DISCOM Kerala (TCED)

2.2.2 Hours of Supply (HoS)- Rural

DISCOM	HoS
TNPDCL	23.95
UGVCL	23.80
TPWODL	23.76
WBSEDCL	23.72
MSPDCL	23.71
TPNODL	23.71
APEPDCL	23.66
PED	23.65
TGNPDCL	23.64
Goa PD	23.64
DGVCL	23.61
APSPDCL	23.60
TSECL	23.58
MGVCL	23.57
TPSODL	23.57
PGVCL	23.50
HPSEBL	23.50
Mizoram PD	23.46
NPCL	23.42
TPCODL	23.30
TGSPDCL	23.24
KSEBL	23.13
APDCL	23.09
Ladakh PDD	23.07
APCPDCL	23.02
UPCL	23.01
MPPoKVVCL	22.92
MePDCL	22.89
BESCOM	22.85
Sikkim PD	22.81
MESCOM	22.67
CSPDCL	22.64
CESCOM	22.60
HESCOM	22.56
Nagaland PD	22.45
AVVNL	22.43
MPMKVVCL	22.39
MSEDCL	22.36
GESCOM	22.25
A&N PD	22.25
PSPCL	22.15
UHBVNL	22.09
KPDCL	22.04
SBPDCL	21.88
NBPDCL	21.71
MPPaKVVCL	21.51
JVVNL	21.28
DVVNL	21.26
JBVNL	21.23
JPDCL	21.08
DHBVNL	20.94
PuVVNL	20.85
Arunachal PD	20.69
MVVNL	20.40
PVVNL	20.22
JdVVNL	19.44

FAST FACTS

National Maximum:
23.95 Hours

National Average:
22.60 Hours

National Minimum:
19.44 Hours

TAKEAWAYS

- DISCOMs that are below the national average are providing an average of 22.74 hours of supply, which is 4% less than the 23.70 hours supplied by discoms above the national average
- Leading DISCOMs (more than 23.70 HoS) are Tamil Nadu (TNPDCL), Gujarat (UGVCL), Odisha (TPWODL & TPNODL), West Bengal (WBSEDCL), and Manipur (MSPDCL)
- DISCOMs below national average HoS – 23 DISCOMs
- DISCOM equal or above national average HoS- 33 DISCOMs
- None of the private or urban DISCOM is below National average

2.2.3 Interruption Index (II)- Urban

DISCOM	Value
NDMC	0.00
Lakshadweep ED	0.00
AEML	0.31
TPCL	0.47
BYPL	1.47
BRPL	1.61
TPDDL	2.01
Nagaland PD	3.06
Mizoram PD	7.18
TSECL	10.12
TNPDCL	13.87
NPCL	14.89
UGVCL	22.85
PED	25.52
MGVCL	36.36
APEPDCL	36.79
DGVCL	38.32
TGNPDCL	38.85
KESCO	38.97
BEST	40.12
KSEBL	40.39
TGSPDCL	41.85
WBSEPDCL	42.55
Goa PD	45.94
MSPDCL	51.72
PGVCL	53.99
TPWODL	53.99
APSPDCL	55.85
Sikkim PD	57.81
APCPDCL	61.32
HESCOM	65.04
HPSEBL	74.09
CSPDCL	83.71
BESCOM	85.21
TPSODL	92.13
TPCODL	92.52
MPPoKVVCL	102.09
MePDCL	103.47
Ladakh PDD	108.70
MSEDCL	113.42
GESCOM	115.45
TCED	120.80
MVVNL	123.07
APDCL	148.22
DVVNL	148.34
MESCOM	149.69
DHBVNL	165.30
PVVNL	178.04
UPCL	179.38
MPPaKVVCL	181.48
KPDCL	186.33
UHBVNL	194.32
AVVNL	198.89
MPMKVVCL	208.71
JdVVNL	230.95
Arunachal PD	238.46
JBVNL	239.62
PuVVNL	245.24
NBPDCL	271.71
JVVNL	272.81
SBPDCL	285.58
CESCOM	383.29
TPNODL	436.53
JPDCL	445.32
A&N PD	899.68
PSPCL	1508.06

Interruption Index serves as benchmark for the overall stability of the power distribution system, highlighting its resilience.
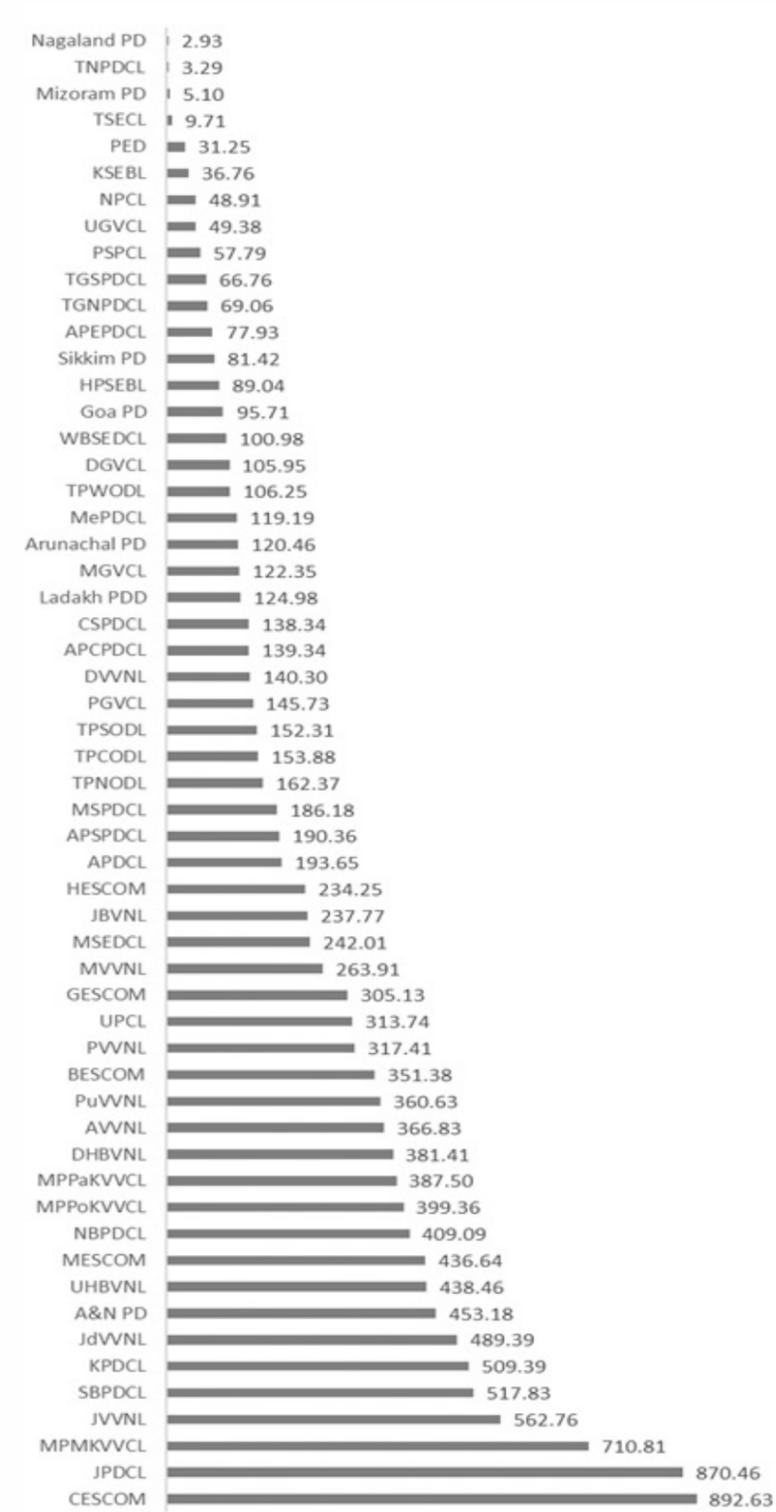
FAST FACTS

National Maximum:
1508.06

National Average:
144.15

National Minimum:
0

TAKEAWAYS

• Leading DISCOMs (less than 10 Interruptions Index/Year) are Lakshadweep - Lakshadweep ED, Delhi- NDMC, TPDDL, BRPL & BYPL and Maharashtra – AEML & TPCL, Nagaland- Nagaland PD and Mizoram – Mizoram PD.

• DISCOMs performing better than national average Interruption Index – 43 DISCOMs

• DISCOM performing poorer than national average Interruption Index - 23 DISCOMs

2.2.4 Interruption Index (II)- Rural

DISCOM	Value
Nagaland PD	2.93
TNPDCL	3.29
Mizoram PD	5.10
TSECL	9.71
PED	31.25
KSEBL	36.76
NPCL	48.91
UGVCL	49.38
PSPCL	57.79
TGSPDCL	66.76
TGNPDCL	69.06
APEPDCL	77.93
Sikkim PD	81.42
HPSEBL	89.04
Goa PD	95.71
WBSEDCL	100.98
DGVCL	105.95
TPWODL	106.25
MePDCL	119.19
Arunachal PD	120.46
MGVCL	122.35
Ladakh PDD	124.98
CSPDCL	138.34
APCPDCL	139.34
DVVNL	140.30
PGVCL	145.73
TPSODL	152.31
TPCODL	153.88
TPNODL	162.37
MSPDCL	186.18
APSPDCL	190.36
APDCL	193.65
HESCOM	234.25
JBVNL	237.77
MSEDCL	242.01
MVVNL	263.91
GESCOM	305.13
UPCL	313.74
PVVNL	317.41
BESCOM	351.38
PuVVNL	360.63
AVVNL	366.83
DHBVNL	381.41
MPPaKVVCL	387.50
MPPoKVVCL	399.36
NBPDCL	409.09
MESCOM	436.64
UHBVNL	438.46
A&N PD	453.18
JdVVNL	489.39
KPDCL	509.39
SBPDCL	517.83
JVVNL	562.76
MPMKVVCL	710.81
JPDCL	870.46
CESCOM	892.63

FAST FACTS

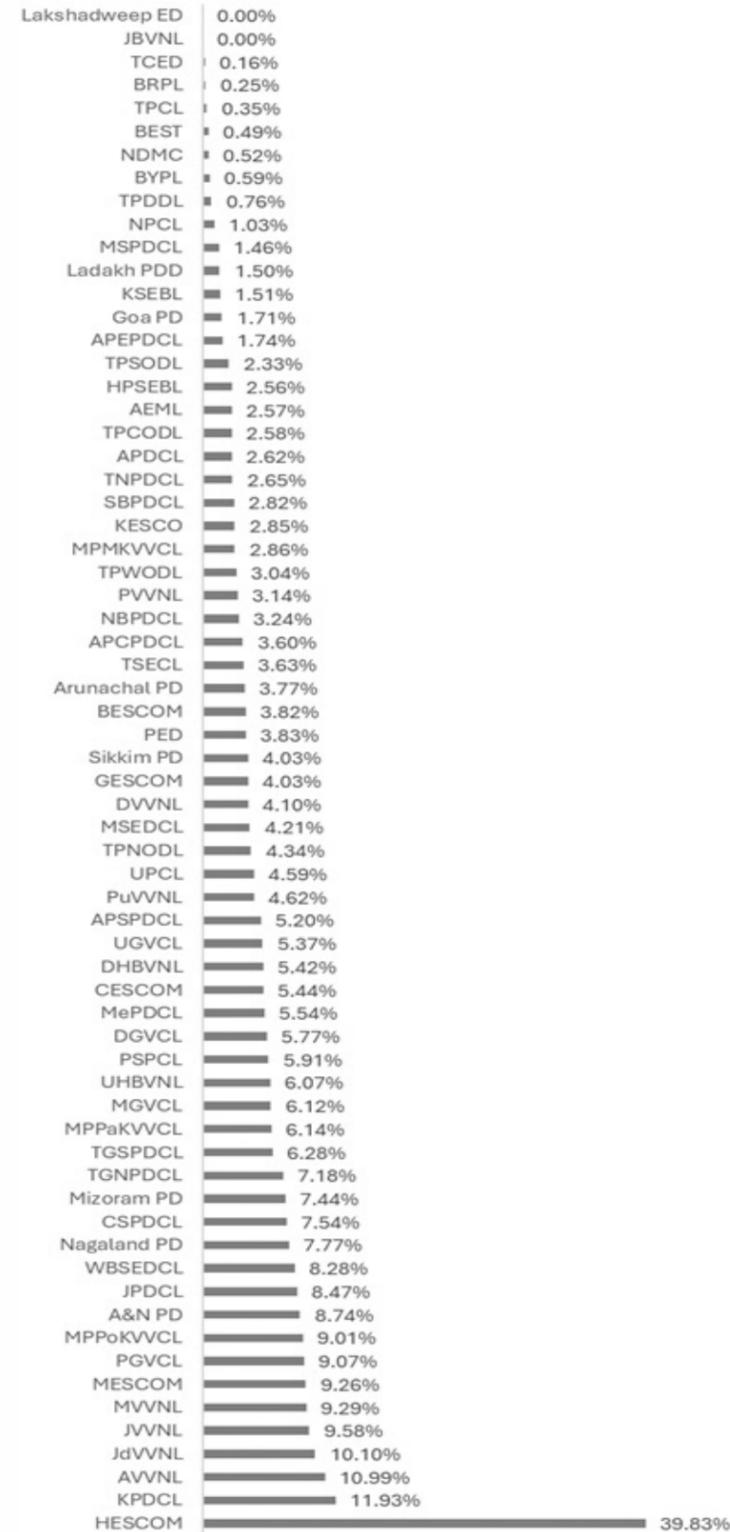National Maximum:
892.63

National Average:
242.49

National Minimum:
2.93

TAKEAWAYS

• Leading DISCOMs (less than 10 Interruptions Index/Year) are Tamil Nadu - TNPDCL, Tripura- TSECL, Nagaland- Nagaland PD, Mizoram – Mizoram PD.

• DISCOMs performing better than national average Interruption Index – 35 DISCOMs

• DISCOM performing poorer than national average Interruption Index - 21 DISCOMs

2.2.5 Distribution Transformer (DT) Failure rate

DISCOM	DT Failure Rate
Lakshadweep ED	0.00%
JBVNL	0.00%
TCED	0.16%
BRPL	0.25%
TPCL	0.35%
BEST	0.49%
NDMC	0.52%
BYPL	0.59%
TPDDL	0.76%
NPCL	1.03%
MSPDCL	1.46%
Ladakh PDD	1.50%
KSEBL	1.51%
Goa PD	1.71%
APEPDCL	1.74%
TPSODL	2.33%
HPSEBL	2.56%
AEML	2.57%
TPCODL	2.58%
APDCL	2.62%
TNPDCL	2.65%
SBPDCL	2.82%
KESCO	2.85%
MPMKVVCL	2.86%
TPWODL	3.04%
PVVNL	3.14%
NBPDCL	3.24%
APCPDCL	3.60%
TSECL	3.63%
Arunachal PD	3.77%
BESCOM	3.82%
PED	3.83%
Sikkim PD	4.03%
GESCOM	4.03%
DVVNL	4.10%
MSEDCL	4.21%
TPNODL	4.34%
UPCL	4.59%
PuVVNL	4.62%
APSPDCL	5.20%
UGVCL	5.37%
DHBVNL	5.42%
CESCOM	5.44%
MePDCL	5.54%
DGVCL	5.77%
PSPCL	5.91%
UHBVNL	6.07%
MGVCL	6.12%
MPPaKVVCL	6.14%
TGSPDCL	6.28%
TGNPDCL	7.18%
Mizoram PD	7.44%
CSPDCL	7.54%
Nagaland PD	7.77%
WBSEDCL	8.28%
JPDCL	8.47%
A&N PD	8.74%
MPPoKVVCL	9.01%
PGVCL	9.07%
MESCOM	9.26%
MVVNL	9.29%
JVVNL	9.58%
JdVVNL	10.10%
AVVNL	10.99%
KPDCL	11.93%
HESCOM	39.83%

High DT Failure Rate impacts power supply reliability and increases maintenance costs for DISCOMS. Minimizing DT failures enable a stable and efficient power supply to end consumers.

FAST FACTS

National Maximum:
39.83%

National Average:
5.02%

National Minimum:
0%

TAKEAWAYS

- None of the Private DISCOMs have a DT Failure Rate poorer than the National Average, indicating strong performance in asset management

- 9 DISCOMs have achieved less than 1% DT Failure Rate

- 27 DISCOMs have DT Failure Rate equal or more than the National Average

- Highest DT failure rate – HESCOM (39.83 %)

2.3 CONNECTIONS AND OTHER SERVICES

This section focuses on evaluating the efficiency, convenience, and effort involved in providing connections to consumers by DISCOMs. It highlights the role of technology in streamlining application processes and assesses the extent of consumer presence as prosumers. This also examines the alignment of new connection timelines with consumer rules, along with the introduction of standardized demand charges for new connections up to 150 kW, to promote consistency and align practices with industry benchmarks.

ANALYSIS OF SUB-PARAMETERS

2.3.1 Alignment of regulations with industry best practices (w.r.t. timelines)
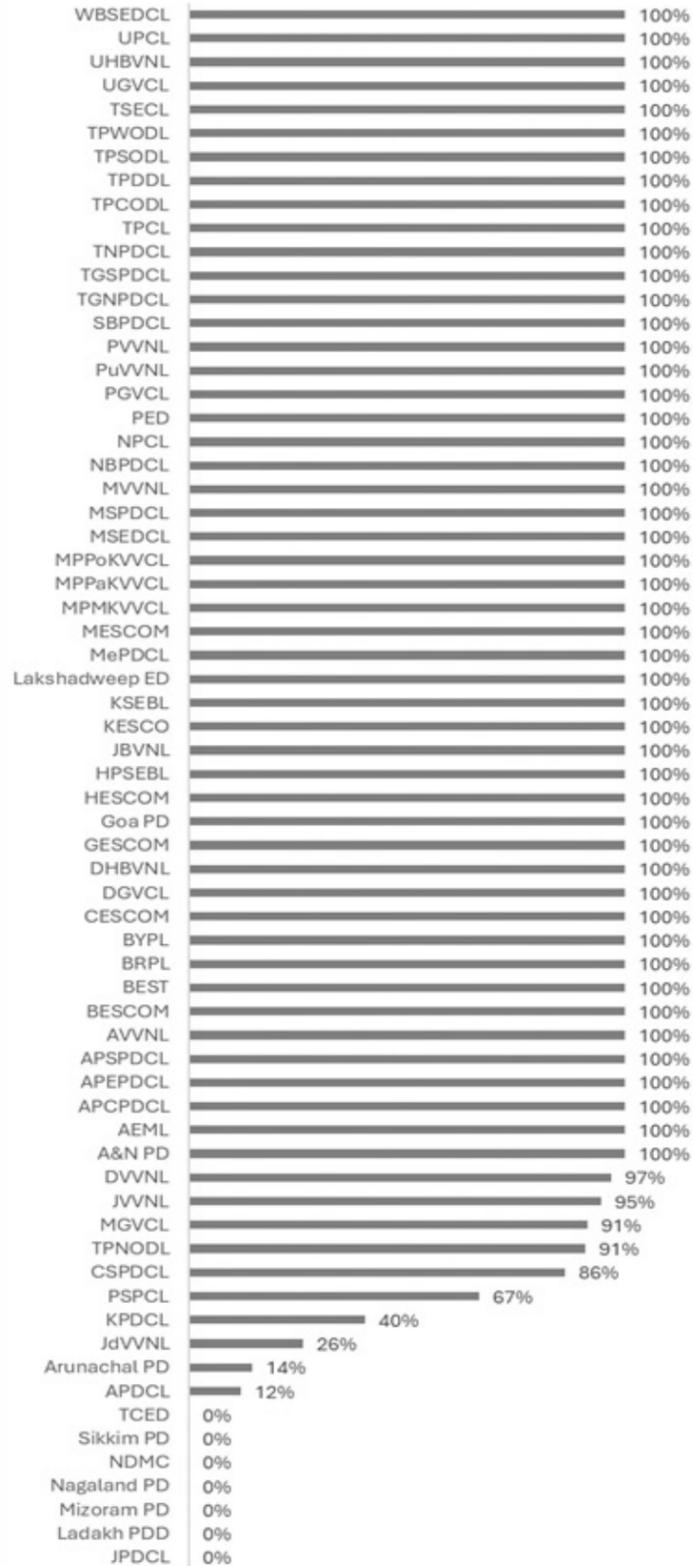
- The timelines defined in the Electricity (Rights of Consumers) Rules, 2020 serve as a benchmark for industry best practices. These encompass seven key areas, including connection releases, meter testing, issuance of no-dues certificates, claim settlements, feasibility studies for rooftop solar installations, and post-installation solar connectivity.

- 39 DISCOMs were unable to comply with all 7 regulations, with DISCOM like Lakshadweep ED, aligning with only 1. This indicates significant room for improvement in compliance with consumer rules, highlighting opportunities for further improvement.

2.3.2 Presence of predetermined demand charges (New connections up to 150 kW)

- Regulation No. 4(13) of the Electricity (Rights of Consumers) Rules, 2020, outlines the need for streamlined and simplified connection charges for new electrical connections up to 150 kW. The regulation states that "For electrified areas up to 150 kW or such higher load as the Commission may specify the connection charges for new connection shall be fixed on the basis of the load, category of connection sought and average cost of connection of the distribution licensee so as to avoid site inspection and estimation of demand charges for each and every case individually. The demand charges, in such cases, may be paid at the time of application for new connection."

- 33 DISCOMs have successfully implemented predetermined demand charges for new connections up to 150 kW, reflecting a positive step toward simplification. Meanwhile, 33 DISCOMs are in the process of achieving compliance, offering significant potential for progress in this area.

2.3.3 Application processed through online portal

DISCOM	%
WBSEDCL	100%
UPCL	100%
UHBVNL	100%
UGVCL	100%
TSECL	100%
TPWODL	100%
TPSODL	100%
TPDDL	100%
TPCODL	100%
TPCL	100%
TNPDCL	100%
TGSPDCL	100%
TGNPDCL	100%
SBPDCL	100%
PVVNL	100%
PuVVNL	100%
PGVCL	100%
PED	100%
NPCL	100%
NBPDCL	100%
MVVNL	100%
MSPDCL	100%
MSEDCL	100%
MPPoKVVCL	100%
MPPaKVVCL	100%
MPMKVVCL	100%
MESCOM	100%
MePDCL	100%
Lakshadweep ED	100%
KSEBL	100%
KESCO	100%
JBVNL	100%
HPSEBL	100%
HESCOM	100%
Goa PD	100%
GESCOM	100%
DHBVNL	100%
DGVCL	100%
CESCOM	100%
BYPL	100%
BRPL	100%
BEST	100%
BESCOM	100%
AVVNL	100%
APSPDCL	100%
APEPDCL	100%
APCPDCL	100%
AEML	100%
A&N PD	100%
DVVNL	97%
JVVNL	95%
MGVCL	91%
TPNODL	91%
CSPDCL	86%
PSPCL	67%
KPDCL	40%
JdVVNL	26%
Arunachal PD	14%
APDCL	12%
TCED	0%
Sikkim PD	0%
NDMC	0%
Nagaland PD	0%
Mizoram PD	0%
Ladakh PDD	0%
JPDCL	0%

As amended in the Consumer Rules 2020, clause (4), the distribution licensee shall create a web portal and mobile app for online applications. Applicants may submit either electronically or via hard copy. Hard copy submissions shall be scanned, uploaded, and acknowledged with a registration number, while online submissions will automatically generate an acknowledgment.
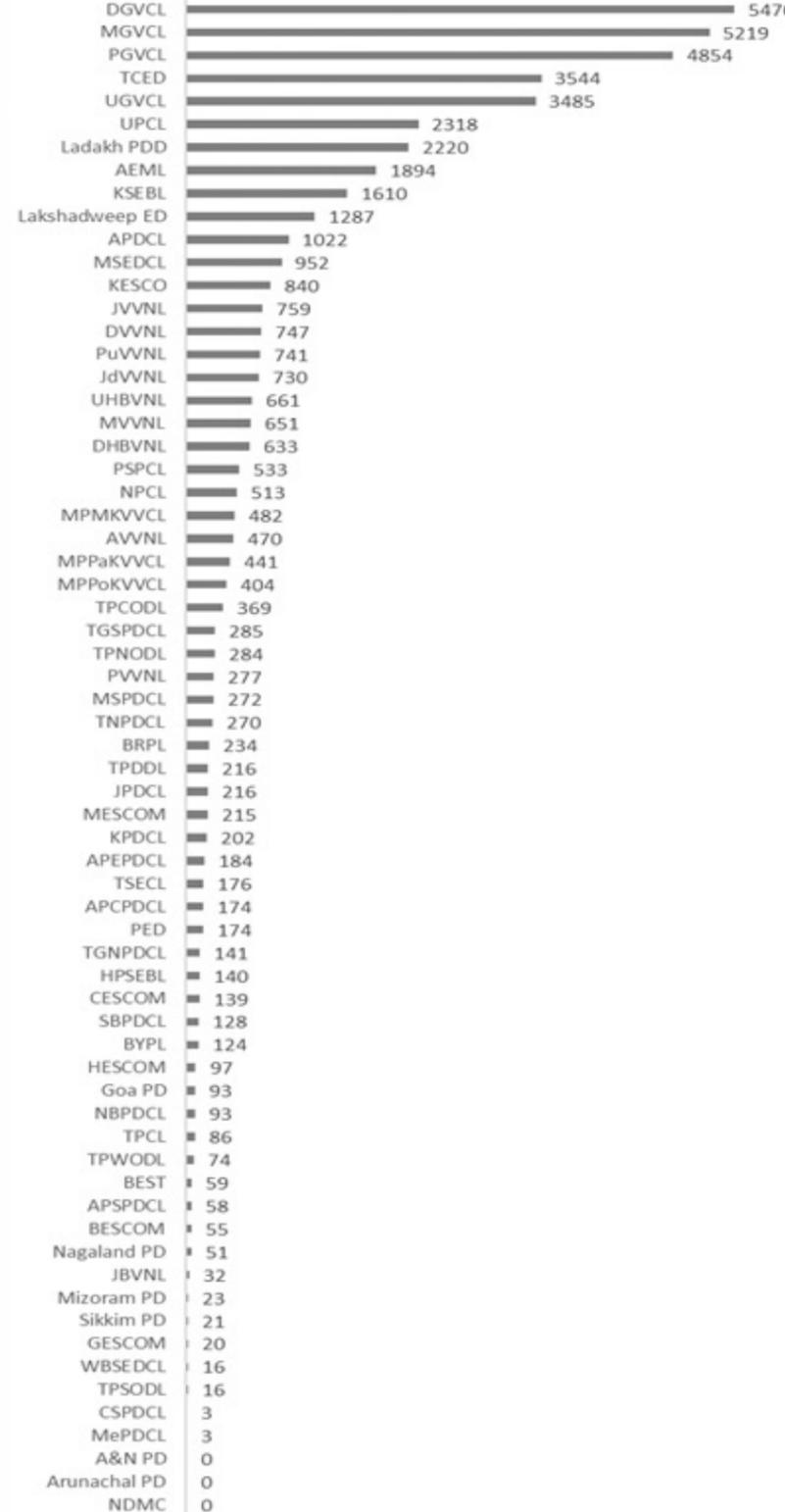
FAST FACTS

National Maximum:
100%

National Average:
87%

National Minimum:
0%

TAKEAWAYS

- 49 DISCOMs have fully implemented 100% online application processing.
- 10 DISCOMs use a hybrid model, combining manual and online modes for application processing.
- NDMC, Sikkim PD, Nagaland PD, Mizoram PD, JPDCL, TCED, and Ladakh PD are yet to comply with online application processing.

2.3.4 Prosumers/Lakh (under net metering / gross metering)

DISCOM	Value
DGVCL	5470
MGVCL	5219
PGVCL	4854
TCED	3544
UGVCL	3485
UPCL	2318
Ladakh PDD	2220
AEML	1894
KSEBL	1610
Lakshadweep ED	1287
APDCL	1022
MSEDCL	952
KESCO	840
JVVNL	759
DVVNL	747
PuVVNL	741
JdVVNL	730
UHBVNL	661
MVVNL	651
DHBVNL	633
PSPCL	533
NPCL	513
MPMKVVCL	482
AVVNL	470
MPPaKVVCL	441
MPPoKVVCL	404
TPCODL	369
TGSPDCL	285
TPNODL	284
PVVNL	277
MSPDCL	272
TNPDCL	270
BRPL	234
TPDDL	216
JPDCL	216
MESCOM	215
KPDCL	202
APEPDCL	184
TSECL	176
APCPDCL	174
PED	174
TGNPDCL	141
HPSEBL	140
CESCOM	139
SBPDCL	128
BYPL	124
HESCOM	97
Goa PD	93
NBPDCL	93
TPCL	86
TPWODL	74
BEST	59
APSPDCL	58
BESCOM	55
Nagaland PD	51
JBVNL	32
Mizoram PD	23
Sikkim PD	21
GESCOM	20
WBSEDCL	16
TPSODL	16
CSPDCL	3
MePDCL	3
A&N PD	0
Arunachal PD	0
NDMC	0

Prosumers, who both generate and consume electricity, are crucial in power distribution for enhancing grid resilience and promoting sustainable, decentralized energy systems.

FAST FACTS

States	Total Prosumers (Nos)
Gujarat	19,208
Rest of India	28,471
TOTAL	**47,499**

TAKEAWAYS

- Leading DISCOMs with more than 1,000 prosumers per lakh consumers include APDCL, Lakshadweep ED, KSEBL, AEML, Ladakh PDD, UPCL, UGVCL, TCED, PGVCL, MGVCL and DGVCL.

2.3.5   Average deviation from SOP in time taken for providing new connection

- Average deviation from the Standard Operating Procedure in the time taken to provide new connections reflects the efficiency and consistency of service delivery. Negative or zero deviation points to adherence to timelines, ensuring timely and reliable connection services for consumers.

- 47 DISCOMs comply with the timelines for releasing connections across all categories.

- Significant deviations from SOP timelines (over 20%) are observed in 3 DISCOMs: SBPDCL, MVVNL and JBVNL.

2.4 METERING, BILLING AND COLLECTIONS (MBC)

This parameter evaluates three essential areas of DISCOM operations: meter data collection, bill generation and issuance, and the revenue collection process. DISCOMs are assessed across nine sub-parameters, focusing on aspects such as the time taken to replace defective meters, modes of meter reading, billing frequency, quantum of bills generated, consumer engagement, technology integration, and tariff categories.

ANALYSIS OF SUB PARAMETERS

2.4.1   Average time taken for replacement of defective meters

The timely replacement of defective meters in power distribution ensures accurate billing, enhances grid consumers efficiency, and complies with regulatory standards that mandate reliable and fair energy measurement for consumers.

Leading DISCOMs: TPCL, GESCOM, TPWODL, BESCOM, BEST, HESCOM and AEML complete replacements within 24 hours in urban areas, while GESCOM and MPPaKVVCL achieve this within 2 days in rural areas.

2.4.2 Bills Generated Based On Actual/ Working Meter Reading

DISCOM	Percentage
Sikkim PD	100%
PuVVNL	100%
NDMC	100%
MGVCL	100%
Lakshadweep ED	100%
Ladakh PDD	100%
HPSEBL	100%
HESCOM	100%
GESCOM	100%
AEML	100%
CESCOM	100%
TPCL	100%
APCPDCL	100%
TPDDL	100%
TCED	99%
BYPL	99%
BRPL	99%
KESCO	99%
PSPCL	98%
NPCL	98%
TGNPDCL	98%
TNPDCL	98%
TGSPDCL	98%
TPNODL	97%
APEPDCL	97%
BEST	97%
DVVNL	96%
KSEBL	96%
Mizoram PD	96%
DGVCL	96%
UHBVNL	96%
MESCOM	95%
UPCL	95%
UGVCL	95%
PGVCL	94%
AVVNL	94%
TPCODL	94%
TPSODL	93%
WBSEDCL	92%
TPWODL	92%
DHBVNL	92%
BESCOM	92%
MSPDCL	92%
A&N PD	91%
JVVNL	91%
PED	91%
TSECL	91%
Goa PD	90%
MSEDCL	89%
NBPDCL	89%
MePDCL	88%
APSPDCL	87%
MVVNL	86%
PVVNL	86%
JdVVNL	85%
APDCL	84%
JPDCL	83%
CSPDCL	78%
SBPDCL	78%
JBVNL	68%
MPMKVVCL	62%
Nagaland PD	60%
MPPaKVVCL	58%
MPPoKVVCL	54%
KPDCL	13%

Actual metered reading ensures consumers are billed accurately based on their precise electricity consumption, promoting transparency and fairness.

FAST FACTS

National Maximum:
100%

National Average:
89%

National Minimum:
0%

TAKEAWAYS

- Three DISCOMs-MPPoKVVCL, MPPaKVVCL and KPDCL generated less than 60% of bills through actual meter readings, indicating a need for them to reassess their practices in maintaining the functionality of the electricity meters

- 48 DISCOMs exceed the national average in bill generation.

2.4.3 Bills Generated Based On Actual/ Working Meter Reading

DISCOM	%
HESCOM	100%
AEML	100%
BYPL	100%
BRPL	100%
NBPDCL	100%
Arunachal PD	100%
TPCL	100%
TPDDL	100%
UHBVNL	100%
TGNPDCL	98%
TNPDCL	97%
NDMC	97%
MESCOM	95%
NPCL	94%
TPNODL	93%
TPSODL	93%
TGSPDCL	92%
MSPDCL	91%
TPWODL	90%
APCPDCL	89%
APDCL	88%
APSPDCL	87%
APEPDCL	86%
SBPDCL	84%
DHBVNL	83%
TPCODL	80%
BESCOM	75%
UPCL	74%
PVVNL	61%
DVVNL	56%
KESCO	41%
PuVVNL	40%
JPDCL	40%
MVVNL	38%
KPDCL	33%
BEST	23%
MePDCL	17%
PSPCL	17%
MPPaKVVCL	16%
JVVNL	9%
A&N PD	8%
MPMKVVCL	8%
MPPoKVVCL	7%
HPSEBL	7%
PED	6%
UGVCL	5%
MSEDCL	5%
JBVNL	4%
JdVVNL	3%
MGVCL	2%
AVVNL	2%
WBSEDCL	2%
DGVCL	2%
GESCOM	1%
Sikkim PD	1%
PGVCL	1%
CESCOM	0%
TSECL	0%
Mizoram PD	0%
CSPDCL	0%
KSEBL	0%
Goa PD	0%
Lakshadweep ED	0%
Ladakh PDD	0%
TCED	0%
Nagaland PD	0%

Non-manual meter readings, a subset of actual meter readings, indicate the meter readings captured via all automated means other than the traditional manual reading mode which is with bare eyes.

FAST FACTS

National Maximum:
100%

National Average:
46%

National Minimum:
0%

TAKEAWAYS

• The National Average has increased by 9% compared to the previous year, primarily due to the incremental installation of smart meters on consumer premises

• Few DISCOMs demonstrate excellence with a commendable 100% of bill generation based on automated meter readings: AEML, Arunachal PD, BRPL, BYPL, HESCOM, NBPDCL, TPCL, TPDDL, UHBVNL

• In contrast, CESCOM, TSECL, Mizoram PD, CSPDCL, Goa PD, KSEBL, Ladakh PDD, Lakshadweep ED, Nagaland PD and TCED currently have a 0% reliance on automated meter reading methods, presenting an opportunity for future advancements in this area

2.4.4 Billing frequency for domestic category consumers as per regulations

• Electricity billing as per State ERC regulations is important as it allows for better revenue management. A desirable scenario is the monthly billing of the consumers which enables DISCOMs to effectively manage the cash flows and WC requirements.

• The billing frequency for domestic category consumers is monthly in 42 DISCOMs and follows multiple billing cycles in 24 DISCOMs.

2.4.5 Bills generated for domestic consumers in a year

• Generating bills for domestic consumers throughout the year in a timely manner as per the regulator defined frequency ensures consistent cash flow and reduces revenue leakage for the DISCOM.

• DISCOMs— Mizoram PD and Arunachal PD —that generate fewer bills, accounting for less than 80% of the potential billing capacity.

2.4.6 % of Consumers Receiving Billing Alerts

DISCOM	%
AEML	100%
BYPL	100%
NBPDCL	100%
Arunachal PD	100%
TPCL	100%
TPDDL	100%
TNPDCL	100%
NPCL	100%
TGSPDCL	100%
APCPDCL	100%
PVVNL	100%
DVVNL	100%
KESCO	100%
PuVVNL	100%
MVVNL	100%
KPDCL	100%
JVVNL	100%
A&N PD	100%
MPPoKVVCL	100%
HPSEBL	100%
JBVNL	100%
AVVNL	100%
CESCOM	100%
BRPL	100%
Lakshadweep ED	100%
KSEBL	100%
TPNODL	99%
TSECL	99%
MPPaKVVCL	99%
UHBVNL	97%
WBSEDCL	96%
MPMKVVCL	95%
TPWODL	95%
DHBVNL	94%
MSEDCL	93%
HESCOM	93%
Mizoram PD	92%
APDCL	92%
DGVCL	92%
SBPDCL	91%
APSPDCL	91%
TPCODL	91%
JdVVNL	90%
GESCOM	90%
Ladakh PDD	89%
BEST	89%
UGVCL	86%
PGVCL	84%
UPCL	83%
MGVCL	82%
APEPDCL	81%
MESCOM	80%
TGNPDCL	79%
NDMC	74%
PSPCL	69%
TCED	69%
TPSODL	67%
CSPDCL	66%
Goa PD	62%
MSPDCL	59%
BESCOM	35%
PED	25%
MePDCL	21%
JPDCL	19%
Sikkim PD	0%
Nagaland PD	0%

Sending timely billing alerts to consumers gives them visibility into their electricity bills and consumption, allowing them

adequate time for making the payments to the DISCOM and avoid late payment fee etc.

FAST FACTS

National Maximum:
100%

National Average:
85%

National Minimum:
0%

TAKEAWAYS

- The foremost DISCOMs providing billing alerts to consumers at a rate of 100% include 26 DISCOMs.

- Furthermore, there are 47 DISCOMs that facilitate billing alerts to consumers at a rate exceeding the national average of 85%.

- In contrast, Sikkim PD and Nagaland PD currently have 0% consumers receiving billing alerts, presenting an opportunity for future advancements in this area.

2.4.7 Prepaid consumers

- According to the Consumer Rules 2020, Rule 5(1), all new connections shall be equipped with a smart prepayment meter or a prepayment meter. Any exceptions require prior approval from the Commission, which shall record a valid justification for deviating from this requirement.

- Leading DISCOMs with a significant proportion of prepaid consumers, exceeding 20%, include 11 DISCOMs: TPCL, KESCO, NPCL, NBPDCL, KPDCL, Arunachal PD, APDCL, SBPDCL, PSPCL, MSPDCL, JPDCL.

- 36 DISCOMs are there with a lower proportion of prepaid consumers, comprising less than 1%, including those DISCOMs without any prepaid metering systems.

FAST FACTS

National Maximum:
100%

National Average:
9.2%

National Average:
0%

2.4.8 Number of tariff categories

- Fewer tariff categories simplify the billing process and make it easier for consumers to comprehend the overall tariff structure.

- There are 38 DISCOMs that have fewer tariff categories than the national average, which stands at 49.

2.4.9 % Bills Paid digitally

Chart — % Bills Paid digitally:

- BRPL 97%
- AEML 96%
- TPDDL 94%
- BYPL 92%
- BESCOM 91%
- TPCL 90%
- MPMKVVCL 90%
- NPCL 88%
- JVVNL 79%
- TNPDCL 77%
- KSEBL 76%
- NBPDCL 73%
- SBPDCL 71%
- AVVNL 70%
- WBSEDCL 68%
- Goa PD 67%
- TGSPDCL 66%
- TSECL 65%
- TGNPDCL 65%
- PSPCL 64%
- Ladakh PDD 61%
- TCED 58%
- APEPDCL 54%
- Lakshadweep ED 54%
- UHBVNL 54%
- BEST 54%
- APCPDCL 53%
- MSEDCL 52%
- DHBVNL 51%
- KPDCL 51%
- DGVCL 49%
- APDCL 46%
- MSPDCL 45%
- KESCO 41%
- UPCL 41%
- MPPoKVVCL 40%
- Mizoram PD 39%
- UGVCL 39%
- MGVCL 37%
- NDMC 37%
- PVVNL 35%
- APSPDCL 34%
- MPPaKVVCL 33%
- DVVNL 32%
- JdVVNL 31%
- PED 29%
- TPNODL 26%
- PGVCL 25%
- CSPDCL 25%
- MePDCL 25%
- JPDCL 25%
- MVVNL 22%
- TPWODL 21%
- HPSEBL 21%
- Arunachal PD 21%
- TPCODL 20%
- TPSODL 18%
- MESCOM 16%
- CESCOM 11%
- GESCOM 10%
- Sikkim PD 9%
- HESCOM 8%
- PuVVNL 8%
- JBVNL 5%
- Nagaland PD 5%
- A&N PD 1%

Promoting digital payments supports broader governmental initiatives to digitize services and increase technological integration in utilities.

Additionally, benefits consumers by offering convenience, faster transactions and secure payments.

FAST FACTS

National Maximum:
97%

National Average:
46%

National Minimum:
1%

TAKEAWAYS

- The leading DISCOMs, where over 85% of bills are paid via online modes, include 8 DISCOMs: AEML, BRPL, TPDDL, BYPL, BESCOM, TPCL, MPMKVVCL and NPCL.

- Additionally, there are 32 DISCOM/PDs where the proportion of consumers paying digitally exceeds the national average of 46%.

2.5 FAULT RECTIFICATION AND GRIEVANCE REDRESSAL (FRGR)

FRGR encompasses parameters that ensure adequate recording and timely resolution of consumer complaints across DISCOMs, focusing on maintaining consumer connectivity through the complaint resolution process.

Analysis of sub-parameters

2.5.1 24x7 customer care call center

- Establishment of a centralized 24x7 call center ensures enhanced accessibility, faster complaint resolution, and streamlined services for consumers.

- All DISCOMs have established 24x7 customer call centers for registering and resolving consumer grievances, with the exception of seven DISCOMs: BEST, Lakshadweep ED, Ladakh PDD, Mizoram PD, Nagaland PD, NDMC, and TCED.

2.5.2 Average call waiting time (ACWT) at the call centre

- Shorter waiting times at call centers lead to higher customer satisfaction, also reflecting proactivness of DISCOM in handling grievance redressal.

- There are 9 leading DISCOMs with an ACWT of less than 5 seconds : AEML, BYPL, MPMKVVCL, MPPoKVVCL, TPCL, MPPaKVVCL, PED, Arunachal PD and NDMC.

2.5.3 Consumers receiving outage related updates on mobile

- Regulation 16(3) of the Consumer Rules 2020 mandates that, "The details of scheduled power outages shall be informed to the consumers. In case of unplanned outage or fault, immediate intimation shall be given to the consumers through SMS or by any other electronic mode along with estimated time for restoration. This information shall also be available in the call center of the distribution licensee."

- Leading DISCOMs with 100% compliance in providing outage alerts on mobile are 25 DISCOMs: AEML, APCPDCL, AVVNL, BYPL, CESCOM, DVVNL, GESCOM, KPDCL, MGVCL, MPMKVVCL, MPPoKVVCL, MVVNL, NBPDCL, NPCL, PSPCL, PVVNL, TGNPDCL, TGSPDCL, TNPDCL, TPCL, TPDDL, JVVNL, KESCO, A&N PD and TCED.

- 9 DISCOMs do not provide outage alerts to consumers: JBVNL, NDMC, JPDCL, HESCOM, MePDCL, Ladakh PDD, Mizoram PD, Nagaland PD, and Sikkim PD.

2.5.4 Deviation from specified time for complaint resolution

- Under the Consumer Rules 2020, distribution licensees are obligated to resolve consumer complaints within specified timeframes to ensure prompt and efficient service.

- Out of 66 DISCOMs, 63 resolve complaints within the specified timeline on average.

- JBVNL did not submit sufficient data or evidence regarding this parameter.

2.5.5 Grievance Redressal Mechanism (Two Tier)

- Establishment of multi-tier grievance redressal mechanism provides consumers with the option to escalate their complaints if the initial resolution is unsatisfactory, thereby enhancing accountability.

- 64 DISCOMs have a Two-Tier Grievance Redressal Mechanism at the circle, zonal, or corporate level.

2.5.6 Number of CGRFs per 1 Lakh consumers

- Higher number of Consumer Grievance Redressal Forums (CGRFs) per lakh consumers indicates better accessibility to grievance redressal for consumers.

- Leading DISCOMs with more than ten established CGRFs per lakh consumers include Ladakh PDD and MSPDCL.

- 6 DISCOMs have secured the highest grade of "A+", and 21 DISCOMs have received an "A" grade.

- The majority of DISCOMs, 27 in total, have achieved a "B+" grade, and no DISCOM has received a "D" grade.

- Overall, 42% of consumers experience "A+" or "A" grade services, whereas only 1% of consumers receive lower-grade services i.e "C".

As highlighted in previous sections, an ideal performance scenario would feature the widest distribution of DISCOMs and consumers across the highest grades.

3.2 Grade spread of DISCOMs across the broad parameters for FY 2024-25

The table below illustrates the distribution of DISCOMs across the four key parameters: OR, CoS, MBC, and FRGR. A higher number of DISCOMs in the "A+" or "A" categories suggests generally desirable performance, whereas a greater number in the "C" or "D" categories indicates generally inferior performance by the DISCOMs.

Legend: ■ A+ ■ A ■ B+ ■ B ■ C+ ■ C ■ D

FRGR: 36, 12, 8, 8, 10, 1
MBC: 2, 6, 12, 12, 17, 12, 5
CoS: 8, 23, 19, 6, 3, 3, 4
OR: 37, 15, 11, 2, 10
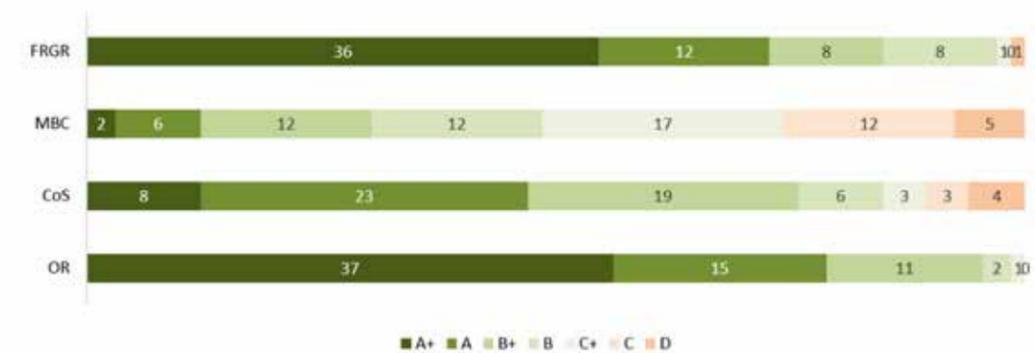
- Overall, this year DISCOMs have shown comparatively better performance across two broad parameters: OR and FRGR, with 52, and 48 DISCOMs securing "A+" or "A" grades, respectively.

- In contrast, only 8 DISCOMs have achieved "A+" or "A" grades in the MBC category, while the majority, 34 DISCOMs, have received "C+", "C" and "D" grades.

- For the OR parameter, the majority of DISCOMs have attained the highest grade of "A+", indicating generally better performance in this highest-weighted parameter (45 Marks).

- Conversely, under the MBC parameter, a significant number of DISCOMs, specifically 5, have received the lowest grade of D, indicating generally inferior performance in this area.

KEY FINDINGS

A central aim of the CSRD exercise has been to build a unified platform for DISCOMs, allowing them to learn from the performance of their counterparts. While some DISCOMs have achieved top ratings, others have been identified as having scope for improvement. The next section presents a detailed, parameter-wise performance summary and offers a comparative analysis of the CSRD FY 2024–25 report against previous CSRD editions.

3.1 DISCOMs and Consumer spread across the grade scale

A more granular review of state/DISCOM performance across key parameters and consumer coverage uncovers notable insights. Altogether, the 66 DISCOMs evaluated in the grading exercise serve 34.47 crore electricity consumers.

Grade Scale	A+	A	B+	B	C+	C	D
DISCOM Count	6	21	27	10	1	1	0
Consumer Spread	3%	39%	48%	7%	2%	1%	0%

3.3 Parameter specific services to the consumers

The below section indicates the spread of consumers and the DISCOMs across the 4 key parameters.

3.3.1 Operational Reliability (OR)
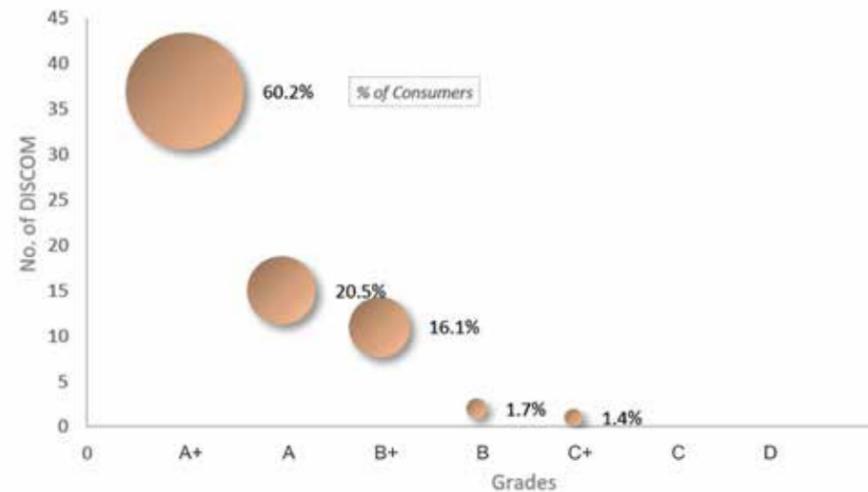
- Out of 34.5 crore consumers, 20.8 crore (60%) are experiencing "A+" grade services, provided by 37 DISCOMs.
- A low 49 lakh (1.4%) consumers are receiving "C+" grade in operational reliability services from one DISCOM, and no consumers are receiving "C" or "D" graded service in this category.
- Considering "A+" and "A" graded DISCOMs as benchmarks for performance, it can be inferred that 81% of the overall consumers receive superior Operational Reliability services.
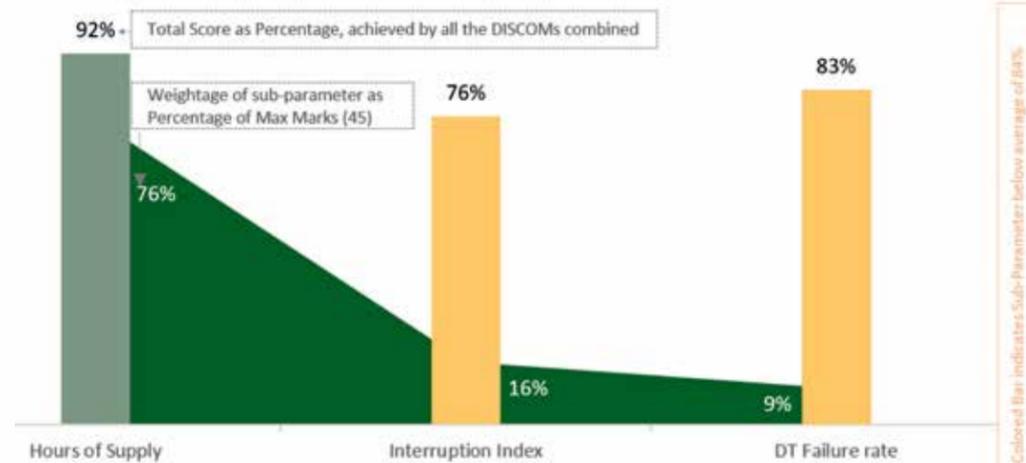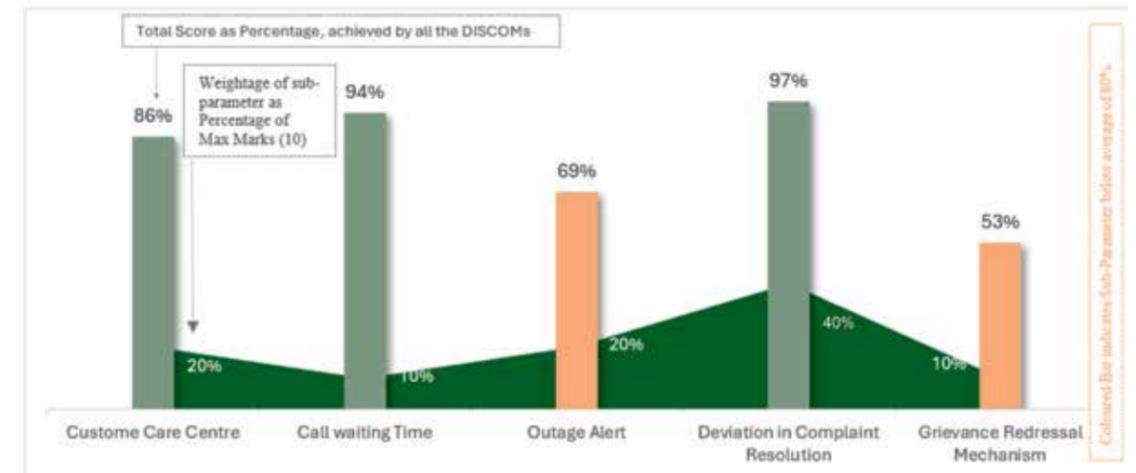

The bar chart shows the total score (in %) of all DISCOMs, while the area chart depicts the weight (in %) of each sub-parameter. This indicates the cumulative performance of DISCOMs and areas of improvement

- Hours of Supply, with the highest weightage of 76%, is the main factor in achieving a higher operational reliability score, as demonstrated by the high score of 92% in this area. Notably, major DISCOMs contributing to these impressive scores include BYPL, AEML, TPDDL, and TPCL.
- While the Interruption Index and DT Failure Rate have lower weightages of 16% and 9%, respectively, improvements in these areas can still contribute significantly to enhancing the overall operational reliability score and Reliability of supply for the consumers.

3.3.2 Connections and Other Services (CoS)
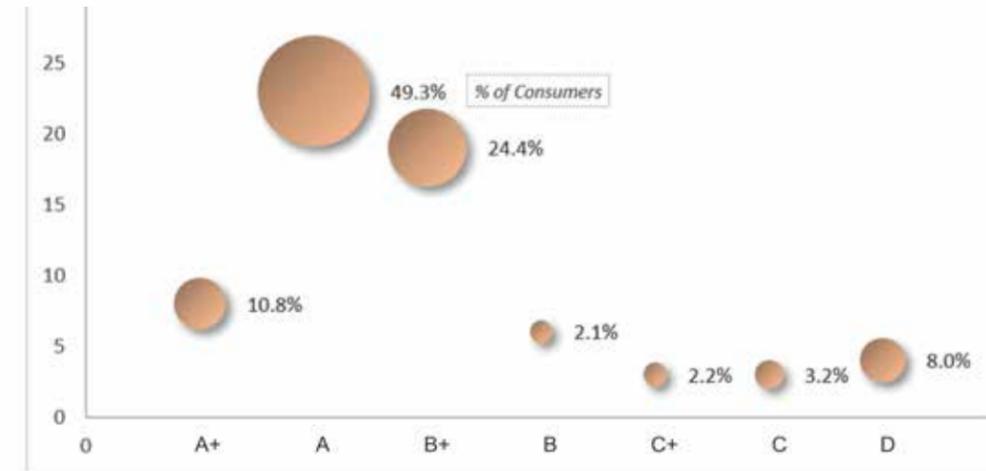
- Out of 34.5 crore consumers, 3.73 crore (11%) are served by 8 DISCOMs with "A+" grade, while 2.77 crore (8%) consumers are experiencing "D" grade services under the Connections and Other Services parameter, provided by 4 DISCOMs.
- Considering "A+" and "A" graded DISCOMs as benchmarks for performance, it can be inferred that 60% of the overall consumers receive a superior level of CoS.
- DISCOMs graded "C" and "D" under CoS cumulatively serve 11% of the overall consumers, indicating a significant portion of the consumer base receives relatively inferior CoS.
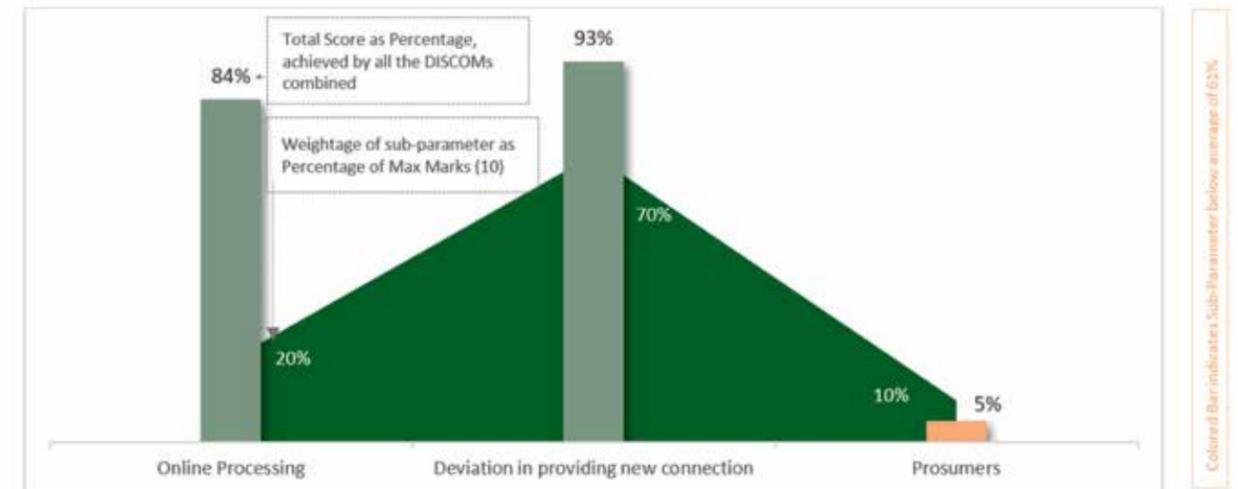

The bar chart shows the total score (in %) of all DISCOMs, while the area chart depicts the weight (in %) of each sub-parameter. This indicates the cumulative performance of DISCOMs and areas of improvement.

- Despite its relatively low weightage of 10% in the CSRD exercise, the Connection & Other Services (COS) parameter plays a vital role in ensuring the efficiency and effectiveness of DISCOMs in delivering essential services, which are crucial for maintaining customer satisfaction and regulatory compliance.
- The low score (5%) achieved in Prosumer sub-parameter indicates a lag in integrating renewable energy sources and encouraging consumers to become prosumers—those who both produce and consume energy. Addressing this gap is essential for advancing renewable energy initiatives and improving the overall COS performance.

3.3.3 Metering, Billing and Collections (MBC)
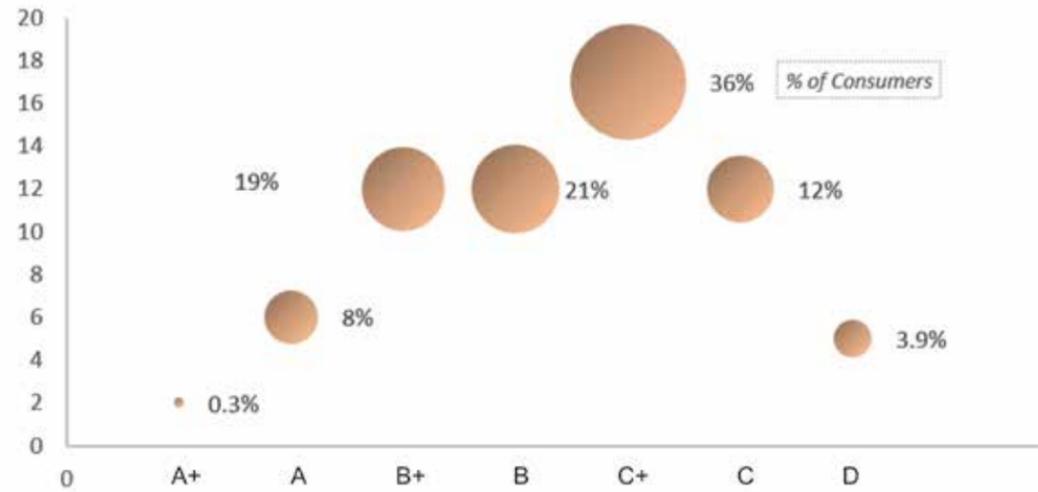
- Under this parameter, 2.76 crore consumers (8.3%) across 8 DISCOMs have experienced "A+" and "A" grade services.
- Approximately 4.2 crore consumers (12%) and 1.4 crore consumers (4%) are served by 12 and 5 DISCOMs, respectively, receiving "C" and "D" grade services under MBC. This indicates that a cumulative 16% of the consumers are experiencing relatively inferior services under this parameter.
- Additionally, majority of consumers (76%) are experiencing average level of service under "B+", "B" & "C" grades.
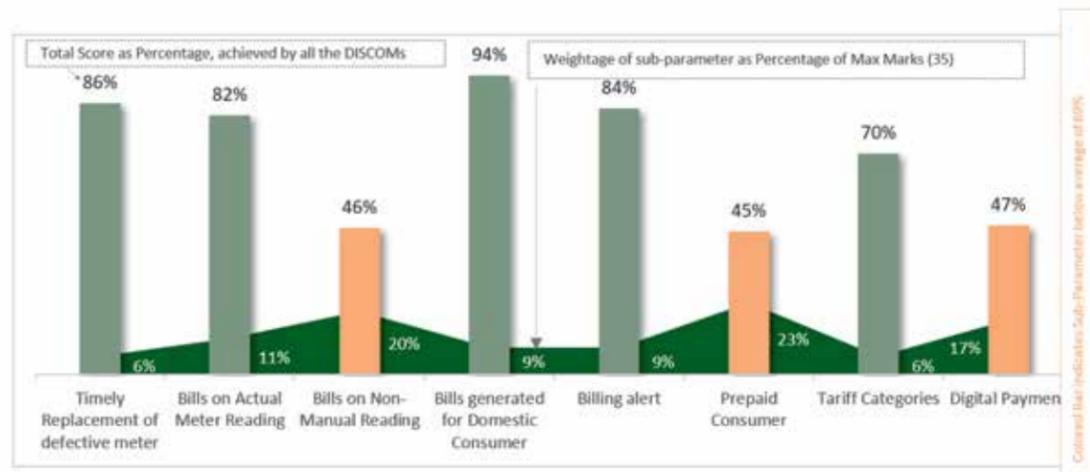
The bar chart shows the total score (in %) of all DISCOMs, while the area chart depicts the weight (in %) of each sub-parameter. This indicates the cumulative performance of DISCOMs and areas of improvement.

- Since the inception of the CSRD exercise, the MBC parameter has consistently been the poorest performed among the evaluated parameters, even though it carries a significant weightage of 35%
- The low scores by DISCOMs in the three high-weighted sub-parameters have resulted in lower grades within the MBC parameter and in the overall CSRD grading, highlighting the critical need for efforts in specific areas like integration of smart meters, promoting prepayment, and digital transactions.
- For DISCOMs, these improvements can lead to better grades and operational efficiency. For consumers, they ensure reliable service and easier payment options. For nation-building, they support the modernization of the energy sector and promote sustainable practices

3.3.4 Fault Rectification and Grievance Redressal (FRGR)
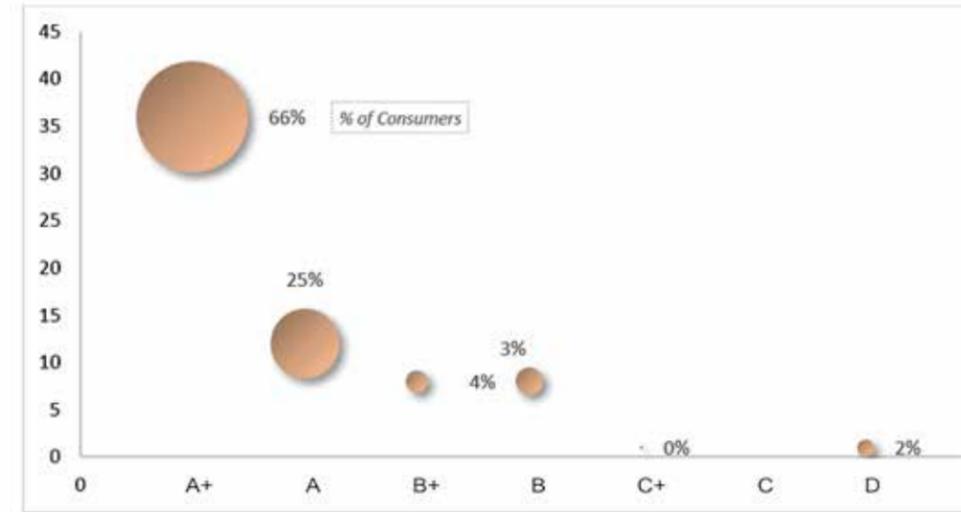
- Out of 34.5 crore consumers, 23 crore (66%) are served by 36 DIsCOMs with "A+" grade in the FRGR parameter, while 0.55 crore (2%) are experiencing "D" grade services.
- Considering "A+" and "A" graded DISCOMs as benchmarks for performance, it is evident that 92% of the overall consumers experienced superior FRGR services.
- DISCOMs graded "C" and "D" under FRGR cumulatively serve 2% of the overall consumers, indicating a smaller portion of the consumer base experiences inferior FRGR services

The bar chart shows the total score (in %) of all DISCOMs, while the area chart depicts the weight (in %) of each sub-parameter. This indicates the cumulative performance of DISCOMs and areas of improvement.

- Despite its relatively low weightage of 10% in the CSRD exercise, the FRGR parameter is crucial for maintaining high standards in consumer service delivery. The Electricity (Rights of Consumers) Rules mandate a compensation mechanism for not adhering to performance standards, making it imperative for DISCOMs to resolve customer complaints promptly to comply with these standards and maintain consumer trust.
- The FRGR sub-parameter includes additional value-added metrics such as call waiting time and outage alerts. Performing in these metrics not only provide a comprehensive measure of service quality but also enhance the overall consumer experience by ensuring timely support and proactive communication during service disruption

3.3.5　Performance symmetry across the parameters

Evaluating the performance based on similar grades secured by DISCOMs across the four broad parameters provides insight into overall performance consistency. This assessment aids in identifying DISCOMs with consistently high or low grades across multiple parameters.
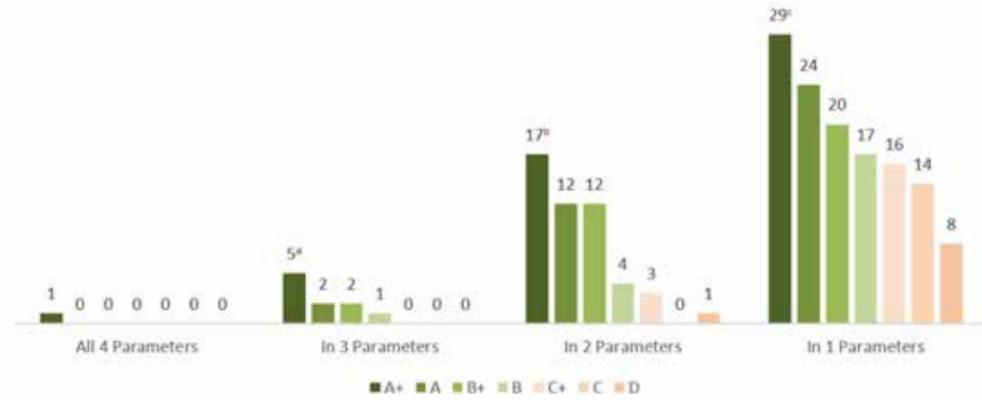
- 1 DISCOM has secured A+ grades across all 4 broad parameters.
- [a]5 DISCOMs have secured A+ grades in 3 parameters, [b]17 DISCOMs have secured A+ grade in 2 parameters and [c]29 DISCOMs have secured A+ grade in 1 parameter amongst the 4 parameters
- 9 DISCOMs have attained lowest grades of D in at least one parameter
- There is a significant drop-off when looking at DISCOMs that maintain high grades across multiple parameters, which indicates the challenges to achieve high performance consistently across all evaluated areas.
- Majority of DISCOMs score in the middle range for one or two parameters but fewer achieve this across three or four parameters

3.4　Grade Spread of DISCOMs over last 3 years (FY2023-2025)

The table and graphic below illustrate the changes in the distribution of DISCOMs across the grade scale over the three CSRD editions i.e FY 2022-23, FY 2023-24, and FY 2024-25. The number of DISCOMs participating in the grading exercise has increased from 62 in FY 2022-23 to 65 in FY 2024-25.

Grades	FY2024-25	FY2023-24	FY2022-23
A+	6	6	4
A	21	15	8
B+	27	22	23
B	10	14	19
C+	1	7	4
C	1	2	3
D	0	0	1

Other key observations on the grade specific performance at national level are:

- The proportion of DISCOMs achieving higher grades (A+/A) has been increasing, while those securing lower grades (C/D) have been decreasing year-on-year.

- The greatest distribution of DISCOMs over the years has been observed in the B+/B/C+ category.
- There is a positive trend of DISCOMs obtaining A+/A grades over the three years, rising from 12 in FY 2022-23 to 21 in FY 2023-24, and then to 27 in FY 2024-25.
- The number of DISCOMs receiving B+/B/C+ grades decreased consistently from 46 in 2023 to 43 in 2024. In FY 2024-25, this number reduced to 38 as more DISCOMs improved their performance and secured A+/A grades.
- There has been a decrease in the number of DISCOMs obtaining the lowest grades, C/D, starting from 4 in 2023, dropping to 2 in 2024, and further down to 1 in 2025. This year-over-year reduction, with a 50% decrease from 2023 to 2024 and a similar 50% decrease from 2024 to 2025, indicates an improvement in these DISCOMs' consumer services.

  Over the past 3 years, four DISCOMs namely BYPL (Delhi), BRPL (Delhi), TPDDL (Delhi), and NPCL (Uttar Pradesh) have consistently achieved top grades (A+).

3.5 Change in the grade spread in FY 2024-25

The table below provides an overview of the changes in the grade distribution of DISCOMs across the four key parameters in FY 2024-25 compared to the FY 2023-24 rating exercise. At a national level, this enables the identification of parameters and grades where there has been a significant shift in the number of DISCOMs falling within a particular grade and parameter.
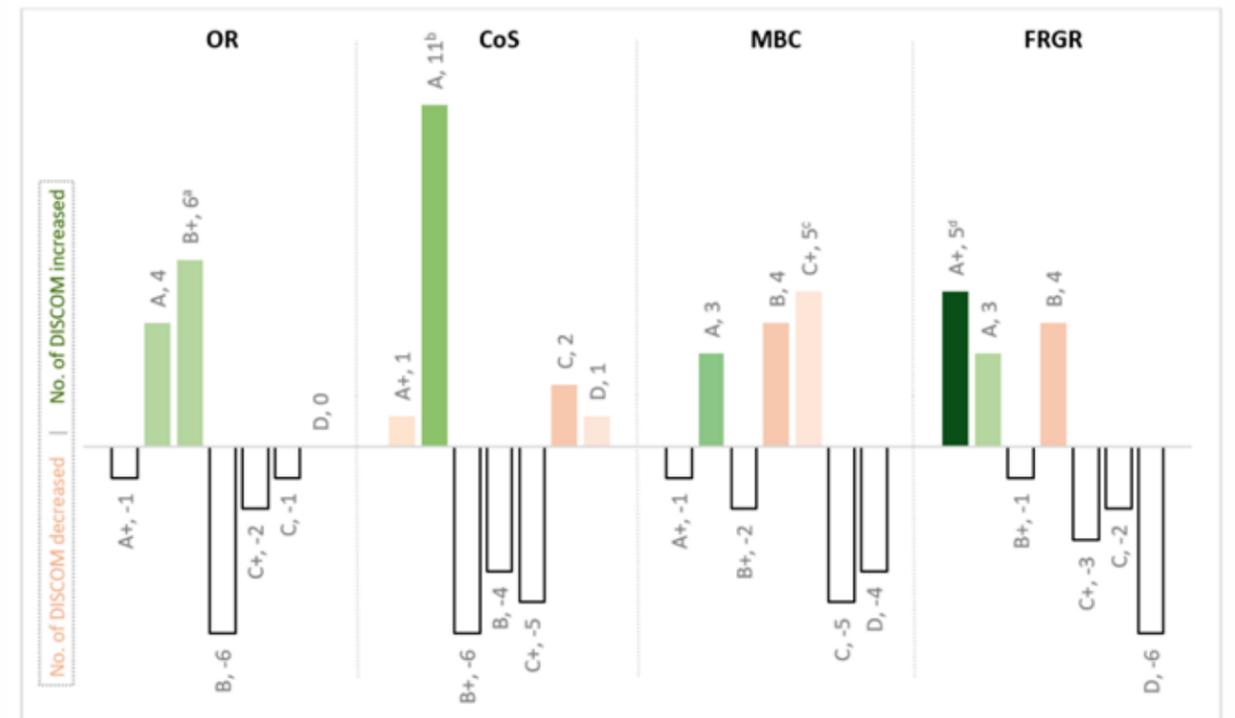

Note: For the purpose of comparison, the tabulation of changes in 66 DISCOMs, which were involved in both FY 2023-24 and FY 2024-25, has been undertaken.

Based on the table, it is evident that there are positive, negative, or no changes in the distribution of DISCOMs across various grades for specific performance parameters. From an overall performance perspective, it is desirable to see positive changes in the number of DISCOMs achieving higher grades across the four key service parameters.

Some of the key takeaways from the above table is as follows:

a. The most significant shift is observed in the grades, "B+" and "B", within the OR parameter, with an addition and deletion of 6 DISCOMs respectively in FY-25.

b. Under the CoS parameter, the largest shift is seen in the "A" category, with an addition of 11 DISCOMs.

c. The MBC parameter experienced the greatest shift in the "C+" grade, with an addition of 5 DISCOMs.

d. For the FRGR parameter, an upward shift is observed in the "A+" and "A" grades, with the addition of 5 and 3 DISCOMs, respectively

It is significant that there has been a clear increment in the number of DISCOMs with a "A" grade across all criteria. Many DISCOMs improved their performance in the FRGR category, moving up to higher grades (from D/C+/C to A+/A), indicating an upgrade in their ratings. However, in the MBC category, there was a decline in the number of DISCOMs achieving top grades, which could be a matter of concern. Based on these observations, it is crucial for DISCOMs to evaluate their performance across various sub-parameters and implement necessary improvements.
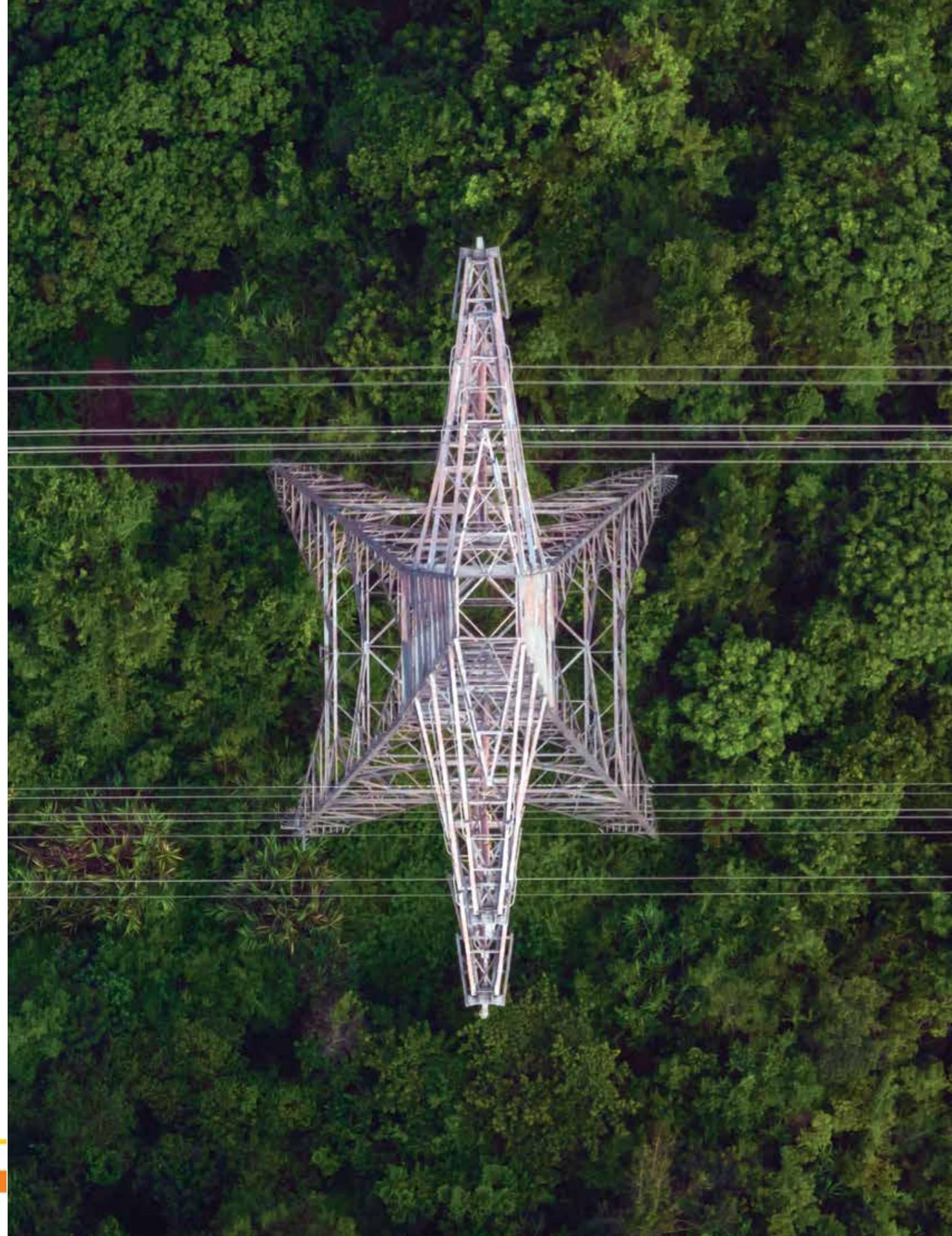
Despite this progress, power utilities still face distinct challenges stemming from geographical diversity, varying demographics, and changing climatic conditions. Addressing these complexities while upholding high service standards and ensuring business continuity requires a comprehensive, multifaceted strategy encompassing both technical and commercial measures. Studies have highlighted several impactful practices that could significantly improve the performance of DISCOMs in India. These include building resilient and robust distribution infrastructure, implementing user-friendly billing systems, shortening response times, and strengthening grievance redressal mechanisms.

Furthermore, the integration of smart technologies and IT solutions can help streamline operations and enhance overall efficiency. Both global and Indian utilities/DISCOMs have successfully leveraged advanced technologies and proven practices to optimize operations, improve metering and billing processes, and adopt consumer-oriented strategies. These efforts have resulted in greater operational efficiency, reduced downtime, and notable gains in customer satisfaction. The achievements of leading global utilities, particularly in developed economies, underscore the vital role electricity plays in fueling industrial growth and set a high benchmark for service delivery excellence.

By adopting best practices from top-performing global and Indian DISCOMs, underperforming utilities in India can transform their operations, modernize their infrastructure, and innovate to bridge existing service quality gaps. Such a forward-looking approach will not only raise service standards for Indian consumers but also contribute to the advancement of the global electricity distribution sector.

Global Best Practices

Illustration Practice – I

Practice Head: AR-Enabled Remote Quality Inspection	**Country Name:** Brazil	**Utility Name:** Eletrobras
Performance Outlook:		
Eletrobras has deployed AI at scale through its Eletro.ia program to enhance operational efficiency, monitor grid stability in real time, and support reliable power delivery across Brazil. By leveraging C3 AI Grid Intelligence and Generative AI, the utility can detect and respond to faults within seconds, optimize operations, and free operators for higher-impact tasks. The integration of AI strengthens resilience, improves compliance, and modernizes critical network monitoring processes.		
Key features of the Practice:		
· Implemented AI Grid Intelligence to monitor all transmission assets in real time, enabling rapid fault detection, clustering, and resolution.		
· Applied AI-driven fault management to identify affected equipment and substations and guide decision-making.		
· Leveraged Generative AI to streamline operational reporting, reducing manual workload and enhancing focus on high-priority tasks.		
· Enhanced grid stability, operational efficiency, and regulatory compliance, while supporting the energy transition and reliable service delivery across Brazil.		

4

OUTLOOK OF GLOBAL AND DOMESTIC BEST PRACTICES IN ELECTRICITY DISTRIBUTION

A wave of reforms and innovations is driving a significant transformation across the electricity distribution sector, leading to improved operational efficiency and stronger service reliability. Central to this evolution is a customer-focused approach that encourages the adoption of innovative solutions across all service areas. As a result, electricity supply reliability has improved considerably, with fewer outages and the introduction of automated systems that speed up service restoration. Additionally, consumers now enjoy greater freedom in selecting their electricity suppliers, which promotes healthy market competition and pushes utilities to continually raise their service standards to retain and attract customers.

Illustration Practice – II

Practice Head: Smart Drone Operations for Grid Management	Country Name: Germany	Utility Name: E.ON
Performance Outlook:		
E.ON used around 180 drones to inspect power lines and construction sites, capturing 6 million high-resolution images and covering 35,000 km. Drones improved data collection, accelerated AI-based analysis, and enhanced safety.		
Key features of the Practice:		
· Automated inspections of lines and hard-to-reach areas with AI-powered damage detection. · 2D/3D site imagery for efficient construction monitoring and precise measurements. · Event-driven long-haul flights for rapid response during disruptions or extreme weather. · Special tools: flamethrowers, corona cameras, thermal imaging, and bird protection markers. · Impact: Standardized drone use reduces travel, improves documentation, and speeds up grid digitalization.		

Illustration Practice – III

Practice Head: AI-Enabled Load Forecasting (Prediction Center)	Country Name: China	Utility Name: State Grid Zhejiang Electric Power Co Ltd
Performance Outlook:		
State Grid Zhejiang Electric Power Co Ltd has established an AI-powered prediction center to forecast electricity consumption accurately amid rising intermittent renewable energy integration. This system leverages deep learning and no-code machine learning to analyze historical load and meteorological data, enabling more precise and flexible predictions under complex conditions such as cyclical load variations, weather impacts, and holiday behaviors. The AI forecasting solution has strengthened grid planning and operational reliability as renewable generation grows.		
Key features of the Practice:		
· Launched an AI-backed prediction center with high-performance computing servers to forecast electricity demand. · Integrated deep learning and no-code machine learning models to analyze historical power load and weather data for improved forecast accuracy. · Enhanced forecasting capability to handle variable factors like cyclical load changes and user behavior (e.g., during holidays). · Increased ability to balance intermittent renewable energy input with grid demand through better prediction precision. · Strengthened operational resilience and grid planning in the context of rapid renewable energy expansion.		

Illustration Practice – IV

Practice Head: AR-Enabled Remote Quality Inspection	Country Name: Italy	Utility Name: Enel
Performance Outlook:		
Enel improved efficiency and reduced costs by enabling Augmented Reality–based remote quality checks across its 700 global plants. Remote inspections match on-site effectiveness while minimizing travel and optimizing scarce skilled resources.		
Key features of the Practice		
· AR-powered remote inspections and quality checks enable real-time collaboration via mobile and wearable devices, with multimedia sharing, redlining, and digital documentation, delivering a 52% productivity gain across 5,700 remote inspections per year, 15% time savings per inspection, 950 trips avoided annually, and 1,980 additional man-days available each year.		

Illustration Practice – V

Practice Head: Digital Infrastructure & Platforms	Country Name: Singapore	Utility Name: SP Group
Performance Outlook:		
The organization strengthened its digital core by modernizing its platforms and central systems that power customer-facing apps, commercial solutions, and internal projects. This transformation enhanced system reliability, reduced downtime, and improved overall efficiency by automating processes and ensuring robust quality assurance and security measures. The initiative supports SP Utilities' sustainability goals and readiness for future digital service demands, aligning with Singapore's innovation agenda.		
Key features of the Practice:		
· Centralized Platform Management: Developed and maintained all core systems and platforms that power the SP Utilities app, commercial solutions, and internal tools, ensuring high availability and scalability for both residential and commercial users. · Automated Quality Assurance: Implemented software-driven testing processes across all products to replace manual app testing, improving productivity, minimizing human error, and ensuring consistent, high-quality customer experiences. · Robust Security and Contingency Planning: Continuously monitored cyber threats, system performance, and recovery plans, ensuring upgrades, maintenance, and failover processes are in place to prevent service disruptions. · Data-Driven Energy Solutions: Contributed to the development of the Green Energy Tech (GETTM) TenantCare solution, enabling commercial customers to optimize energy usage and reduce costs. Deployed in premier aviation hubs and leading universities, this solution supports data-driven sustainability initiatives.		

Illustration Practice – VI

Practice Head: Digital Infrastructure & Platforms	**Country Name:** United States	**Utility Name:** SECO Energy

Performance Outlook:

SECO Energy enhanced its digital infrastructure through the SECO Smart Connect program, leveraging smart devices like thermostats, EV chargers, and battery storage systems to optimize energy usage during periods of peak demand. This initiative strengthens system reliability, reduces strain on the electric grid, and lowers wholesale power costs while providing tangible bill credit rewards to residential members. By integrating smart technology with real-time demand management, SECO Energy aligns its operations with sustainability goals and advances customer engagement through automated, data-driven solutions.

Key features of the Practice:

· Demand Response Programs: Implemented Smart Thermostat, EV, and Battery programs to remotely manage energy consumption during peak time events, ensuring grid stability and cost-efficient power distribution.

· Member Incentives: Offered financial rewards for participation, including enrollment credits, seasonal credits, and ongoing monthly bill credits tied to device usage and energy adjustments.

· Automated Peak Load Management: Smart thermostats are adjusted by up to four degrees, EV charging is temporarily paused, and eligible battery systems are discharged during peak demand to reduce system-wide energy load.

· Real-Time Notifications and Event Management: Members are notified via email or text at least one hour in advance of peak time events, allowing seamless participation and energy optimization without compromising comfort or convenience.

· Data-Driven Grid Optimization: Monitoring and controlling enrolled devices during energy "rush hours" reduces wholesale power costs and strain on the electric grid, contributing to a more sustainable and efficient energy ecosystem.

Domestic Best Practices:

Indian DISCOMs have made significant strides in modernizing their practices and systems to improve service delivery. Key initiatives—including the greater adoption of digital and advanced technologies, enhancements in infrastructure quality and standards, customer-friendly billing approaches, quicker response times, improved grievance resolution mechanisms, and continuous innovation—are already being rolled out across select DISCOMs in the country. Both public and private DISCOMs, catering to a wide and diverse consumer base, have embraced noteworthy practices in this regard.

This increasing emphasis on addressing consumer needs mirrors a broader global trend, placing Indian DISCOMs on a path to further elevate service quality and keep pace with evolving consumer expectations. This shift is further supported by the enactment of the Rights of Consumers Rules 2020 (and its subsequent amendments). As the electricity distribution industry continues to evolve, the examples highlighted below serve as valuable benchmarks for other Indian DISCOMs, providing a clear roadmap for sustained improvement and long-term customer satisfaction.

Illustration Practice - I

Practice Head: Metering, Billing and Collection	**Country Name:** India	**Utility Name:** TPNODL (TP Northern Odisha Distribution Limited)

Performance Outlook:

TPNODL focused on leveraging AI-ML technologies to enhance metering accuracy, billing efficiency, and revenue collection.

Key features of the Practice:

AI-Powered Meter Reading:

· Automated extraction of readings from meter displays, eliminating manual entry errors.

· Real-time validation ensures accurate billing, even under low-light or unclear display conditions using machine learning enhancements.

Spoof & Tamper Detection:

· AI algorithms detect duplicate images, display manipulation, and validate KWh & KW readings.

· Automatic alerts are generated for incorrect or tampered entries, ensuring data integrity.

Operational Efficiency:

· Achieved 100% elimination of manual data entry at the field level.

· Significantly reduced turnaround time for billing and exception management.

· Enhanced productivity and efficiency of meter readers, enabling faster, more accurate revenue operations.

Impact & Outcomes:

· Improved billing accuracy and reduced errors from field data collection.

· Strengthened fraud and tamper detection capabilities.

· Enhanced operational efficiency, ensuring timely billing, improved revenue collection, and higher consumer satisfaction.

Illustration Practice-II

Practice Head: Innovative Strategies for Revenue Recovery in Rural Areas	Country Name: India	Utility Name: DGVCL (Dakshin Gujarat Vij Company Limited)

Performance Outlook:
DGVCL implemented data-driven, community-based, and technology-enabled revenue recovery measures to address arrears and payment challenges in rural areas. The initiatives focus on improving collection efficiency, consumer convenience, and reducing AT&C losses by aligning recovery efforts with rural income patterns

Key features of the Practice:
- · Targeted Recovery: Consumer- and route-wise arrear analysis with focused disconnection drives and prior intimation.
- · Community Participation: e-Gram Panchayat involvement for awareness and village-level collections.
- · Seasonal Planning: Post-harvest recovery drives aligned with rural cash flow.
- · Data-Driven Action: High-risk consumer identification using analytics; Lok Adalats for old/litigation arrears.
- · Technology Enablement: Smart meter–based remote disconnection and reconnection.
- · Easy Payments: Collections through CSCs, agencies, village camps, and digital modes.
- · Consumer Outreach: Personalized SMS reminders with payment links.

Impact & Outcomes:
Improved rural collections and cash flow, reduced arrears and AT&C losses, enhanced consumer convenience, and stronger community ownership.

Illustration Practice-III

Practice Head: Customer Service- AI/ML based complaint predictions	Country Name: India	Utility Name: Adani Electricity Mumbai Limited

Performance Outlook:
Adani Electricity Mumbai Limited (AEML) uses an AI/ML-based model to predict High Consumption billing complaints and alert customers proactively, improving transparency and reducing complaints through targeted communication

Key features of the Practice:
- · AI/ML insights used for mass and personalized outreach during heatwaves.
- · Continuous model updates and staff training for consistent billing communication.
- · Targeted area identification, on-ground awareness, social media campaigns, personalized emails, and proactive customer calls.

Impact & Outcomes:
- · 34% reduction in High Consumption complaints (May–Aug 2024 vs 2023).
- · ₹43 lakh savings in operational costs due to fewer complaints.
- · 250% increase in visits to the Energy Calculator and higher digital engagement.

Illustration Practice-IV

Practice Head: Power System Operations – AI/ML based Short Term Load Forecasting	Country Name: India	Utility Name: Kerala State Electricity Board Limited (KSEB)

Performance Outlook:
Kerala State Electricity Board Limited (KSEB) implemented an AI/ML-based Short Term Load Forecasting (STLF) solution to improve demand projection accuracy and optimize power procurement. The initiative was undertaken as part of the Indo-German collaboration with GIZ, to address challenges arising from highly variable load patterns influenced by weather, festivals, holidays, and regional factors

Key features of the Practice:
- · AI/ML-driven STLF model to forecast day-ahead load with higher accuracy.
- · Integration of granular demand patterns (weekly, monthly, yearly) and automated identification of special days, holidays, and festivals.
- · Advanced weather data integration capturing localized impacts such as rainfall and fog in hill stations.
- · Reduction of manual interventions through automated, integrated data architecture. Continuous model learning and adaptation to evolving demand patterns.

Impact & Outcomes:
- · Significant improvement in load forecasting accuracy and efficiency after deployment in May 2024.
- · Reduction in forecast preparation time from ~6 hours through automation.
- · Optimized power procurement with reduced dependence on the Real-Time Market (RTM), lowering procurement risks and costs.
- · Establishment of a scalable, robust STLF system with performance expected to improve continuously as the model learns from new data.

Illustration Practice-V

Practice Head: Load Disaggregation – Appliance-Level Energy Insights	Country Name: India	Utility Name: Tata Power Mumbai Distribution

Performance Outlook:
Tata Power Mumbai has implemented an AI-driven **Load Disaggregation** solution to provide appliance-level energy insights to residential consumers. By analyzing whole-house smart meter interval data, the system identifies unique appliance signatures and translates them into actionable insights, without requiring additional sensors, IoT devices, or sub-metering. This innovation addresses the long-standing challenge of limited visibility into household energy usage, enabling consumers to better manage consumption, improve efficiency, and avoid bill shocks.

Key features of the Practice:
- · AI-driven analysis of whole-house interval data to identify appliance-level consumption patterns.
- · Provides appliance-specific insights for residential smart meter consumers at no extra cost.
- · Supports consumer energy management, efficiency improvements, and avoidance of bill shocks.
- · Facilitates Demand Side Management (DSM) by identifying inefficient appliances for targeted replacement programs.
- · Converts raw meter data into actionable, consumer-friendly insights, enhancing transparency and engagement.

Impact & Outcomes:
- · Consumer Reach: Currently benefits 0.35 million residential smart meter consumers, with a plan to expand to 0.8 million by FY28.
- · Demand Side Management Achievements:
  - o FY25: 4,446 inefficient appliances replaced, saving 452 MWh of electricity and reducing 316 tons of CO_2 emissions.
- · FY26 (till Oct 2025): 2,718 appliances replaced, saving 272 MWh and reducing 190 tons of CO_2 emissions.
- · Enhanced consumer transparency and engagement by converting raw data into actionable insights.
- · Promoted energy efficiency and contributed to sustainability and carbon reduction goals.
- · Demonstrates the potential of AI-driven analytics to create a smarter, more consumer-centric, and sustainable electricity distribution ecosystem.

Illustration Practice-VI

Practice Head: Customer Experience & Service Excellence	**Country Name:** India	**Utility Name:** TPNODL (TP Northern Odisha Distribution Limited)

Performance Outlook:

Project Sanjoga Express – Apekhya Ru Mukti has significantly transformed the new electricity connection process at TPNODL. The initiative has reduced the overall cycle time for connection release, enabling a higher percentage of connections to be activated within 48 hours, resulting in improved customer satisfaction and operational efficiency.

Key features of the Practice:

- TPNODL re-engineered the conventional manual process of new connection release, which previously involved multiple payments, repeated site visits, and delays in billing system integration.
- The process now leverages technology to provide first-time-right service delivery and minimize customer effort. Key interventions include:
    1. Single-step site verification and meter installation: Eligible cases ("green" cases) are completed in one visit, reducing multiple site inspections.
    2. Mobile-based application with GIS integration: Real-time dues verification during site visits ensures accurate and faster processing.
    3. Quality check mechanism: Ensures governance and better control over the end-to-end workflow.
    4. Internal process restructuring: Enables same-day document verification and faster approvals.
    5. Billing system integration: Instant activation of billing upon connection release.
    6. Monitoring and escalation system: Prevents delays through automated alerts and timely resolution.
- The project has enhanced TPNODL's operational efficiency, improved customer experience, and demonstrated the utility's commitment to leveraging digital solutions for service excellence, ensuring timely and hassle-free electricity connections.

While many DISCOMs demonstrated measurable advancements compared to previous years, the assessment also highlighted that significant disparities remain, and utilities still address persistent operational inefficiencies and service delivery gaps. As the power distribution landscape continues its transformation—driven by technological advancements (such as AI and ML technology), evolving consumer expectations, and emerging regulatory requirements—DISCOMs must also evolve and adopt new strategies and technologies to enhance their service capabilities.

To ensure that the CSRD framework remains relevant, comprehensive, and aligned with industry best practices, methodological coverage and evaluation depth are proposed for the further edition. These enhancements aim to provide a more robust and holistic assessment while enabling DISCOMs to align with evolving national priorities such as digitalization, reliability, transparency, and consumer empowerment.

The way forward for CSRD lies in continuous evolution—deepening assessment rigor, expanding coverage to emerging service dimensions, leveraging technology for enhanced evaluation, and strengthening stakeholder engagement. By maintaining its focus on consumer-centricity while adapting to the dynamic power sector landscape, CSRD will continue to serve as a catalyst for transforming India's power distribution sector into a more efficient, reliable, transparent, and consumer-responsive ecosystem. The collective commitment of all stakeholders—policymakers, regulators, utilities, and consumers—will be instrumental in realizing this vision and ensuring that every electricity consumer in India receives world-class service delivery.

5

WAY FORWARD

The Consumer Service Rating of DISCOMs (CSRD) has become a sector-standard benchmark for evaluating DISCOM performance on consumer service parameters. It provides an independent, evidence-based view of strengths, performance gaps, and improvement opportunities. Over successive editions, the report has helped instill a culture of transparency, accountability, and consumer-centricity across the power distribution sector. Its assessment framework and parameter set enable peer benchmarking, highlight areas of operational inefficiency, and guide targeted interventions to improve service delivery.

Across its first three editions, the CSRD report effectively engaged key stakeholders and catalyzed DISCOMs to adopt progressive measures to enhance service quality. The fourth edition consolidated these gains, delivering incremental improvements across multiple service parameters. This fifth edition will deepen this progress by refining the assessment framework, expanding parameter coverage, and providing insights to close persistent service gaps and sustain measurable improvements in FY 2024–25.

KEY CHALLENGES ENVISAGED DURING PLANNING

Since this exercise was intended to be a comprehensive effort involving multiple stakeholders, several challenges were anticipated during the formulation phase:

Selecting the most relevant and optimal set of parameters from a wide range of performance metrics for DISCOMs.

Determining the appropriate rating methodology along with the rating scale.

Developing an inclusive and detailed framework that addresses all aspects related to the exercise.

Communicating the importance of exercise and addressing concerns raised by the participating DISCOMs.

For FY 2024-25, CSRD relied on data from the NFMS portal (National Feeder Monitoring System) owing to the unavailability of information from the RFMS (Rural Feeder Monitoring System).

Developing a platform capable of handling data collection and verification for ~750 data points per DISCOM.

Managing potential issues such as data discrepancies and gaps in supporting evidence.

Conducting training sessions for all DISCOMs and briefing them on data submission procedures, including the necessary supporting documents.

Ensuring timely responses from the DISCOMs throughout the process.

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6

APPROACH TO CSRD

The initiative to comprehensively evaluate the current performance of DISCOMs focuses on key consumer service parameters through the Consumer Service Rating of DISCOMs (CSRD). This process uses a structured method to identify and select performance indicators that significantly affect electricity consumers and their satisfaction. While DISCOMs actively monitor some of these indicators, many are frequently neglected and not tracked regularly. This report emphasizes parameters that have a stronger impact on consumers rather than focusing on the operations or financial aspects of DISCOMs.

The framework of this initiative included defining the critical tasks to be carried out by various stakeholders involved in the exercise. The rating procedure encompasses planning, identifying parameters, collecting data, verifying, validating, and confirming information, engaging multiple stakeholders from both state and central levels. Ratings are assigned according to a predetermined grading scale that ensures a clear differentiation among the participating DISCOMs.

The Ministry of Power (MoP) approved scoring methodology used in the inaugural CSRD exercise for FY 2020-21 has continued to be applied in the follow-up editions for FY 2021-22, FY 2022-23 and FY 2023-24, and has been retained for the CSRD FY 2024-25 edition.
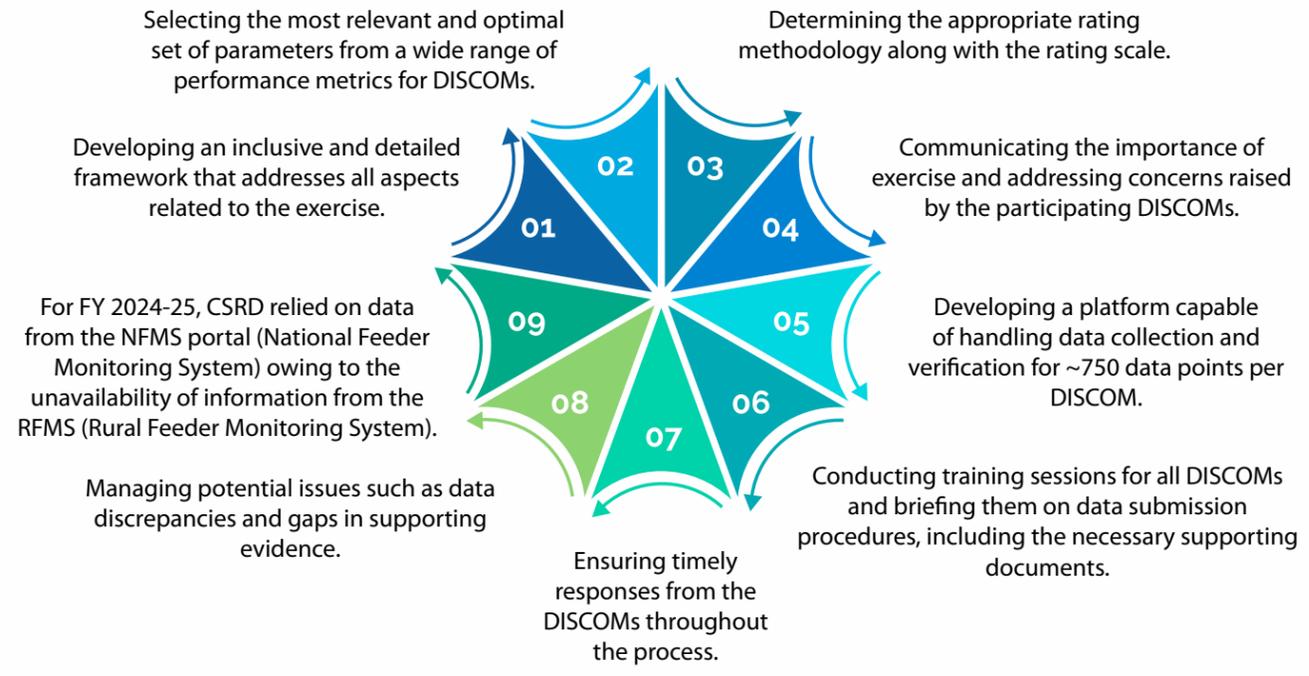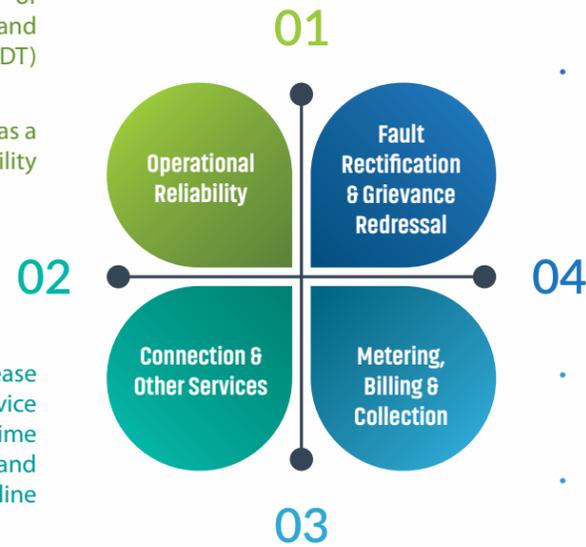
CSRD PARAMETERS

- Parameters related to reliability of power supply: hours of supply, interruption index, and Distribution Transformer (DT) failure rate
- Quality has not been included as a parameter due to the unavailability of data

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- Parameters to ensure prompt registration and resolution of consumer complaints
- Parameters for notifying consumers about outages.

Operational Reliability

Fault Rectification & Grievance Redressal

Connection & Other Services
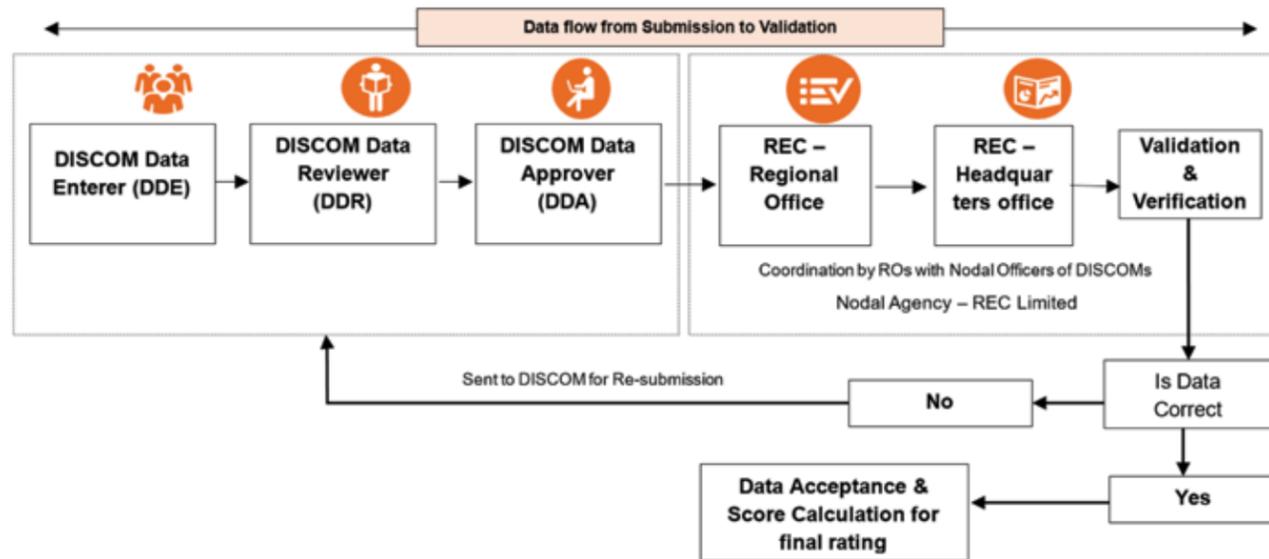
Metering, Billing & Collection

- Parameters related to the ease of obtaining a new service connection, such as the time taken, predetermined demand charge and availability of online process.
- Prosumers in DISCOM consumer mix

03

- Parameters indicating efficiency in metering, billing, collection and commercial loss reduction
- Parameters essential for enhancing consumer service standards, such as receiving bill updates, digital payment etc.

DATA COLLECTION METHODOLOGY

For CSRD FY2024-25, data was gathered through the Revamped Distribution Sector Scheme (RDSS) portal, an online IT-enabled platform designed to monitor key initiatives under RDSS.

To improve data authenticity and minimize manual errors during entry and document uploads, a three-tier structure was adopted at the DISCOM level:

Data flow from Submission to Validation

DISCOM Data Enterer (DDE) → DISCOM Data Reviewer (DDR) → DISCOM Data Approver (DDA) → REC – Regional Office → REC – Headquarters office → Validation & Verification

Coordination by ROs with Nodal Officers of DISCOMs
Nodal Agency – REC Limited

Sent to DISCOM for Re-submission

Is Data Correct → No / Yes

Data Acceptance & Score Calculation for final rating

The portal's architecture ensured systematic visualization of parameters and alignment of supporting documents, significantly reducing time and effort for data validation and authentication.

To enable timely and efficient execution, all regional offices (ROs) of REC Limited were engaged during the data collection phase and instructed to coordinate with designated nodal officers of respective DISCOMs. Additionally, multiple one-on-one interactions and video conferences were conducted with DISCOM officials to achieve the objectives.

MARKING METHODOLOGY

Once the key performance parameters and sub-parameters were identified and chosen, the challenge of assigning suitable weights to each based on their perceived importance and effect on consumer perception was addressed. As a result, thoughtful weightage was allocated to the four major parameters, with the total weightages adding up to a maximum of 100 marks:

Operational Reliability	45 marks	Connection & Other Services	10 marks
Metering, Billing & Collection	35 marks	Fault Rectification & Grievance Redressal	10 marks

DATA VALIDATION

The information received from the DISCOMs was validated through multiple levels, including individual parameter data checks, data triangulation and analysis, as well as the evidence provided by the DISCOMs.

DISCOMs were required to furnish evidence such as:

	System-generated reports
	Regulatory filings (mandatory wherever applicable)
	SERC/JERC regulations or orders
	Manually filled data signed and stamped by the Chairman, MD, ED, Director, or other competent authority

KEY ACTIVITIES:

- **Validation against evidence:** Data received from DISCOMs was cross verified with the submitted documentation evidence.

- **Validation through trail checks:** Detailed breakdowns of aggregated data (e.g., Hours of Supply, Interruption Index, Average time taken for replacing defective meters) submitted by DISCOMs, were collected to confirm accuracy. For reliability and quality of supply parameters, system-based measurement methods were applied, and figures were validated using the National Feeder Monitoring System (NFMS).

- **Finalization of sub-parameter values:** Where discrepancies were found across multiple sources within DISCOM, final values for metrics like Hours of Supply and Interruption Index were determined using a detailed methodology.

GRADING METHODOLOGY

A combination of absolute and relative scoring approaches was adopted. Most sub-parameters were assessed on an absolute scale to ensure year-on-year comparability. However, in cases where benchmarking data was unavailable, a relative scale was used.

The grading of DISCOMs are based on seven score segments:

Grade Scale	A+	A	B+	B	C+	C	D
Score Range (S)	S≥90	90>S≥80	80>S≥70	70>S≥60	60>S≥50	50>S≥40	S<40

KEY CHALLENGES ENCOUNTERED DURING CSRD EXERCISE

1 **Collection**	· Data submission by DISCOMs on the online portal was often delayed · DISCOMs frequently updated, corrected, and amended the submitted data
2 **Verification**	· Incomplete data submissions by DISCOMs · There was limited availability of system-generated evidence supporting the submitted data, with much of it being unsigned manual records
3 **Validation**	· To develop a methodology or assumptions to address the gaps within the data provided by DISCOMs
4 **Confirmation**	· Delayed feedback and confirmation from DISCOMs regarding data gaps and subsequent corrections

MARKING METHODOLOGY

S. No.	Parameter	Marks	Type of Marking
1. Operational Reliability (45 Marks)			
1.1	Hours of Supply (Urban, Rural, Industrial)	34	Absolute
1.2	Interruption Index	7	Absolute
1.3	DT Failure Rate	4	Absolute
2. Connection and Other Services (10 marks)			
2.1	Alignment of regulations with industry best practices w.r.t timelines	0 (-2)	Absolute
2.2	Predetermined demand charges for New Connection up to 150kW	0(-1)	Absolute
2.3	Applications processed through online portal	2	Relative (Proportionate)
2.4	Avg. deviation from SoP in time taken for providing connection	7	Absolute
2.5	Prosumers (under net or gross metering)	1	Relative (Proportionate)
3. Metering, Billing and Collection (35 marks)			
3.1	Avg time taken for replacing defective meters (U)	1	Relative (Proportionate)
3.2	Avg time taken for replacing defective meters (R)	1	Relative (Proportionate)
3.3	Bills generated based on actual meter reading	4	Absolute
3.4	Bills generated basis non-manual meter reading	7	Relative (Proportionate)
3.5	Billing freq. for domestic consumers as per reg.	0 (-1)	Absolute
3.6	Bills generated for domestic consumers in a year	3	Absolute
3.7	Consumers receiving billing updates on mobile	3	Absolute
3.8	Prepaid consumers	8	Relative
3.9	Tariff categories (incl. sub-categories and slabs)	2	Relative (Proportionate)
3.10	Number of consumers paying digitally	6	Relative (Proportionate)
4. Fault Rectification and Grievance Redressal (10 marks)			
4.1	24x7 customer call center (common code '1912')	2	Absolute
4.2	Average call waiting time at the call center	1	Absolute
4.3	Consumers receiving outage updates on mobile	2	Absolute
4.4	Deviation from specified time for complaints resolution through call center	4	Absolute
4.5	Adequacy of Grievance Redressal Mechanism	1	Relative + Absolute
Total Marks: 100			

ANNEXURES

ANNEXURE-A

State-level aggregate grades and performance outlook

State	Total DISCOMs	DISCOMs spread across grades						
		A+	A	B+	B	C+	C	D
Uttar Pradesh	6	1	2	2	1			
Delhi	4	3		1				
Tamil Nadu	1		1					
Telangana	2		2					
Andhra Pradesh	3		3					
Manipur	1		1					
Maharashtra	4	2		2				
Madhya Pradesh	3			3				
Odisha	4		4					
Kerala	2			1	1			
Haryana	2		1	1				
Uttarakhand	1		1					
West Bengal	1			1				
Assam	1		1					
Karnataka	5		1	4				
Gujarat	4		2	2				
Punjab	1			1				
Goa	1			1				
Bihar	2		1	1				
Rajasthan	3			1	1		1	
Tripura	1		1					
Chhattisgarh	1				1			
Andaman & Nicobar Islands	1				1			
Puducherry	1			1				
Ladakh	1			1				
Chandigarh	0							
Sikkim	1				1			
Mizoram	1				1			
Himachal Pradesh	1			1				
Arunachal Pradesh	1				1			
Jharkhand	1					1		
Meghalaya	1			1				
Lakshadweep	1			1				
Nagaland	1				1			
Jammu & Kashmir	2			1	1			
Total	**66**	**6**	**21**	**27**	**10**	**1**	**1**	**0**

ANNEXURE-B

(i) Performance across parameters – Operational Reliability

States	DISCOM	Hours of Supply			Interruption Index			DT Failure Rate
		Rural	Urban	Industrial	Rural	Urban	Industrial	
Andaman & Nicobar Islands	A&N PD	22.3	22.6	-	453.2	899.7	-	8.7%
Andhra Pradesh	APEPDCL	23.7	23.8	24.0	77.9	36.8	48.4	1.7%
Andhra Pradesh	APSPDCL	23.6	23.8	23.9	190.4	55.9	3.6	5.2%
Andhra Pradesh	APCPDCL	23.0	23.5	23.9	139.3	61.3	56.8	3.6%
Arunachal Pradesh	Arunachal PD	20.7	21.3	13.7	120.5	238.5	968.1	3.8%
Assam	APDCL	23.1	23.4	23.6	193.7	148.2	13.9	2.6%
Bihar	SBPDCL	21.9	22.9	23.8	517.8	285.6	70.8	2.8%
Bihar	NBPDCL	21.7	22.8	23.6	409.1	271.7	130.4	3.2%
Chhattisgarh	CSPDCL	22.6	23.1	23.7	138.3	83.7	61.1	7.5%
Delhi	BRPL	-	24.0	24.0	-	1.6	1.4	0.3%
Delhi	BYPL	-	24.0	-	-	1.5	-	0.6%
Delhi	NDMC	-	23.4	-	-	0.0	-	0.5%
Delhi	TPDDL	-	24.0	-	-	2.0	-	0.8%
Goa	Goa PD	23.6	23.8	23.9	95.7	45.9	49.5	1.7%
Gujarat	MGVCL	23.6	23.8	23.8	122.4	36.4	24.8	6.1%
Gujarat	UGVCL	23.8	23.9	24.0	49.4	22.9	10.2	5.4%
Gujarat	DGVCL	23.6	23.8	23.9	106.0	38.3	10.6	5.8%
Gujarat	PGVCL	23.5	23.7	23.8	145.7	54.0	41.3	9.1%
Haryana	UHBVNL	22.1	23.3	23.8	438.5	194.3	56.9	6.1%
Haryana	DHBVNL	20.9	23.0	23.4	381.4	165.3	25.0	5.4%
Himachal Pradesh	HPSEBL	23.5	23.7	23.9	89.0	74.1	20.3	2.6%
Jammu & Kashmir	KPDCL	22.0	22.8	23.6	509.4	186.3	248.9	11.9%
Jammu & Kashmir	JPDCL	21.1	22.3	24.0	870.5	445.3	-	8.5%
Jharkhand	JBVNL	21.2	22.4	-	237.8	239.6	-	0%
Karnataka	GESCOM	22.3	23.4	24.0	305.1	115.5	0.9	4.0%
Karnataka	MESCOM	22.7	23.5	23.7	436.6	149.7	114.9	9.3%
Karnataka	CESCOM	22.6	23.2	23.7	892.6	383.3	105.0	5.4%
Karnataka	HESCOM	22.6	23.4	23.2	234.3	65.0	9.9	39.8%
Karnataka	BESCOM	22.9	23.5	23.9	351.4	85.2	58.9	3.8%
Kerala	KSEBL	23.1	23.4	23.7	36.8	40.4	32.4	1.5%
Kerela	TCED	-	23.3	-	-	120.8	-	0.2%
Ladakh	Ladakh PDD	23.1	22.6	-	125.0	108.7	-	1.5%

States	DISCOM	Hours of Supply			Interruption Index			DT Failure Rate
		Rural	Urban	Industrial	Rural	Urban	Industrial	
Lakshadweep	Lakshadweep ED	-	23.8	24.0	-	0.0	-	0%
Madhya Pradesh	MPMKVVCL	22.4	22.9	23.7	710.8	208.7	121.3	2.9%
Madhya Pradesh	MPPaKVVCL	21.5	22.6	23.8	387.5	181.5	105.8	6.1%
Madhya Pradesh	MPPoKVVCL	22.9	23.6	23.5	399.4	102.1	57.7	9.0%
Maharashtra	AEML	-	24.0	-	-	0.3	-	2.6%
Maharashtra	MSEDCL	22.4	23.0	23.9	242.0	113.4	33.2	4.2%
Maharashtra	BEST	-	23.3	-	-	40.1	-	0.5%
Maharashtra	TPCL	-	24.0	-	-	0.5	-	0.4%
Manipur	MSPDCL	23.7	23.9	23.9	186.2	51.7	41.3	1.5%
Meghalaya	MePDCL	22.9	23.1	23.7	119.2	103.5	-	5.5%
Mizoram	Mizoram PD	23.5	23.2	23.4	5.1	7.2	75.5	7.4%
Nagaland	Nagaland PD	22.5	22.0	-	2.9	3.1	-	7.8%
Odisha	TPCODL	23.3	23.8	24.0	153.9	92.5	150.3	2.6%
Odisha	TPWODL	23.8	23.5	23.7	106.3	54.0	50.1	3.0%
Odisha	TPNODL	23.7	23.9	23.9	162.4	436.5	117.9	4.3%
Odisha	TPSODL	23.6	23.7	-	152.3	92.1	-	2.3%
Puducherry	PED	23.7	23.7	-	31.3	25.5	-	3.8%
Punjab	PSPCL	22.2	22.8	23.8	57.8	1508.1	9.7	5.9%
Rajasthan	JdVVNL	19.4	22.0	21.6	489.4	231.0	157.2	10.1%
Rajasthan	JVVNL	21.3	22.5	23.3	562.8	272.8	229.5	9.6%
Rajasthan	AVVNL	22.4	23.4	23.4	366.8	198.9	156.7	11.0%
Sikkim	Sikkim PD	22.8	23.3	22.5	81.4	57.8	24.8	4.0%
Tamil Nadu	TNPDCL	24.0	23.8	24.0	3.3	13.9	1.4	2.7%
Telangana	TGSPDCL	23.2	23.6	24.0	66.8	41.9	5.9	6.3%
Telangana	TGNPDCL	23.6	23.8	24.0	69.1	38.9	1.9	7.2%
Tripura	TSECL	23.6	23.8	24.0	9.7	10.1	0.2	3.6%
Uttar Pradesh	NPCL	23.4	23.8	23.9	48.9	14.9	28.0	1.0%
Uttar Pradesh	PuVVNL	20.9	22.5	23.6	360.6	245.2	4.1	4.6%
Uttar Pradesh	DVVNL	21.3	22.6	23.7	140.3	148.3	85.2	4.1%
Uttar Pradesh	MVVNL	20.4	23.5	23.6	263.9	123.1	47.8	9.3%
Uttar Pradesh	PVVNL	20.2	23.3	23.8	317.4	178.0	109.8	3.1%
Uttar Pradesh	KESCO	-	23.8	23.8	-	39.0	29.8	2.9%
Uttarakhand	UPCL	23.0	23.3	23.5	313.7	179.4	67.2	4.6%
West Bengal	WBSEDCL	23.7	23.8	23.8	101.0	42.6	80.6	8.3%
National Average		22.60	23.32	23.51	242.49	144.15	79.14	5.0%

ANNEXURE-B

(ii) Performance across parameters – Connection and Other Services

States	DISCOM	Alignment of Regulations with industry best practices w.r.t timelines	(A) Presence of predetermined demand charges for up to 150kW	Applications processed through online portal (submission till approval)	Average deviation from SoP in time taken for providing connection	Prosumers (under net or gross metering)
Andaman & Nicobar Islands	A&N PD	4	No	100%	-48%	0
Andhra Pradesh	APEPDCL	6	Yes	100%	-77%	184
Andhra Pradesh	APSPDCL	7	Yes	100%	-79%	58
Andhra Pradesh	APCPDCL	5	Yes	100%	-48%	174
Arunachal Pradesh	Arunachal PD	7	Yes	14%	-23%	0
Assam	APDCL	7	Yes	12%	-32%	1022
Bihar	SBPDCL	6	Yes	100%	29%	128
Bihar	NBPDCL	5	Yes	100%	-4%	93
Chhattisgarh	CSPDCL	6	Yes	86%	-60%	3
Delhi	BRPL	6	Yes	100%	-75%	234
Delhi	BYPL	6	Yes	100%	-67%	124
Delhi	NDMC	6	Yes	0%	0%	0
Delhi	TPDDL	5	Yes	100%	-14%	216
Goa	Goa PD	5	Yes	100%	-39%	93
Gujarat	MGVCL	6	Yes	91%	-53%	5219
Gujarat	UGVCL	7	Yes	100%	-46%	3485
Gujarat	DGVCL	7	Yes	100%	-77%	5470
Gujarat	PGVCL	6	Yes	100%	-53%	4854
Haryana	UHBVNL	6	Yes	100%	-68%	661
Haryana	DHBVNL	7	Yes	100%	-52%	633
Himachal Pradesh	HPSEBL	6	Yes	100%	-41%	140
Jammu & Kashmir	KPDCL	6	Yes	40%	-73%	202
Jammu & Kashmir	JPDCL	4	No	0%	-77%	216
Jharkhand	JBVNL	7	Yes	100%	222%	32
Karnataka	GESCOM	7	Yes	100%	-93%	20
Karnataka	MESCOM	7	Yes	100%	-31%	215
Karnataka	CESCOM	7	Yes	100%	-20%	139
Karnataka	HESCOM	6	Yes	100%	-40%	97
Karnataka	BESCOM	7	Yes	100%	-33%	55
Kerala	KSEBL	4	Yes	100%	-75%	1610
Kerela	TCED	7	Yes	0%	-48%	3544
Ladakh	Ladakh PDD	5	Yes	0%	-48%	2220

States	DISCOM	Alignment of Regulations with industry best practices w.r.t timelines	(A) Presence of predetermined demand charges for up to 150kW	Applications processed through online portal (submission till approval)	Average deviation from SoP in time taken for providing connection	Prosumers (under net or gross metering)
Lakshadweep	Lakshadweep ED	1	No	100%	0%	1287
Madhya Pradesh	MPMKVVCL	7	Yes	100%	-84%	482
Madhya Pradesh	MPPaKVVCL	7	Yes	100%	-88%	441
Madhya Pradesh	MPPoKVVCL	7	Yes	100%	-69%	404
Maharashtra	AEML	7	Yes	100%	-78%	1894
Maharashtra	MSEDCL	6	Yes	100%	-52%	952
Maharashtra	BEST	5	Yes	100%	-10%	59
Maharashtra	TPCL	7	Yes	100%	-43%	86
Manipur	MSPDCL	6	Yes	100%	-44%	272
Meghalaya	MePDCL	6	Yes	100%	-59%	3
Mizoram	Mizoram PD	4	Yes	0%	-23%	23
Nagaland	Nagaland PD	3	Yes	0%	-75%	51
Odisha	TPCODL	3	No	100%	-15%	369
Odisha	TPWODL	7	Yes	100%	-56%	74
Odisha	TPNODL	5	Yes	91%	-59%	284
Odisha	TPSODL	5	Yes	100%	-54%	16
Puducherry	PED	4	Yes	100%	-25%	174
Punjab	PSPCL	7	Yes	67%	3%	533
Rajasthan	JdVVNL	7	Yes	26%	5%	730
Rajasthan	JVVNL	7	No	95%	-16%	759
Rajasthan	AVVNL	7	No	100%	-2%	470
Sikkim	Sikkim PD	3	Yes	0%	-68%	21
Tamil Nadu	TNPDCL	6	Yes	100%	-66%	270
Telangana	TGSPDCL	6	Yes	100%	-81%	285
Telangana	TGNPDCL	4	Yes	100%	-78%	141
Tripura	TSECL	6	Yes	100%	-40%	176
Uttar Pradesh	NPCL	7	Yes	100%	-61%	513
Uttar Pradesh	PuVVNL	7	Yes	100%	-30%	741
Uttar Pradesh	DVVNL	7	Yes	97%	-59%	747
Uttar Pradesh	MVVNL	7	Yes	100%	41%	651
Uttar Pradesh	PVVNL	6	Yes	100%	-44%	277
Uttar Pradesh	KESCO	7	No	100%	-20%	840
Uttarakhand	UPCL	6	No	100%	-59%	2318
West Bengal	WBSEDCL	5	Yes	100%	-71%	16
National Average		**6**	**-**	**83.63%**	**-41%**	**720**

Note: "-" means data not available/ insufficient data or evidence document

ANNEXURE-B

(iii) Performance across parameters – Metering Billing and Connection

States	DISCOM	Average time taken for replacement of defective meters (Rural)	Average time taken for replacement of defective meters (Urban)	Bills generated based on actual meter reading	Bills generated on the basis of non-manual meter reading	% of domestic consumers being billed monthly	Bills generated for domestic category consumers in a year	Consumers receiving billing updates on mobile	Prepaid consumers	Tariff categories (incl. sub-categories and slabs)	Number of consumers paying digitally
Andaman & Nicobar Islands	A&N PD	16	50.1	91%	8%	99%	100%	100%	0%	13	1%
Andhra Pradesh	APCPDCL	8	6.5	100%	89%	100%	99%	100%	0%	50	53%
Andhra Pradesh	APEPDCL	3	2.2	97%	86%	100%	99%	81%	5%	49	54%
Andhra Pradesh	APSPDCL	8	7.5	87%	87%	100%	100%	91%	0%	49	34%
Arunachal Pradesh	Arunachal PD	4	2.5	0%	100%	86%	73%	100%	100%	32	21%
Assam	APDCL	38	63.3	84%	88%	94%	100%	92%	40%	38	46%
Bihar	NBPDCL	14	13.2	89%	100%	100%	89%	100%	44%	38	73%
Bihar	SBPDCL	25	22.4	78%	84%	100%	100%	91%	32%	38	71%
Chhattisgarh	CSPDCL	10	11.0	78%	0%	100%	0%	66%	0%	112	25%
Delhi	TPDDL	-	3.2	100%	100%	96%	100%	100%	1%	24	94%
Delhi	BRPL	-	1.3	99%	100%	98%	100%	100%	1%	24	97%
Delhi	BYPL	-	1.9	99%	100%	100%	100%	100%	1%	24	92%
Delhi	NDMC	-	15.0	100%	97%	98%	100%	74%	0%	23	37%
Goa	Goa PD	7	4.4	90%	0%	86%	100%	62%	0%	57	67%
Gujarat	DGVCL	14	4.4	96%	2%	1%	100%	92%	4%	57	49%
Gujarat	UGVCL	13	7.8	95%	5%	0%	100%	86%	7%	57	39%
Gujarat	PGVCL	50	34.9	94%	1%	4%	99%	84%	0%	57	25%
Gujarat	MGVCL	31	30.6	100%	2%	2%	100%	82%	0%	23	37%
Haryana	UHBVNL	3	3.2	96%	100%	34%	97%	97%	0%	25	54%
Haryana	DHBVNL	6	6.5	92%	83%	6%	96%	94%	1%	37	51%
Himachal Pradesh	HPSEBL	10	4.7	100%	7%	100%	96%	100%	0%	41	21%
Jammu & Kashmir	KPDCL	5	5.2	13%	33%	100%	98%	100%	26%	84	51%
Jammu & Kashmir	JPDCL	4	2.0	83%	40%	100%	92%	19%	24%	56	25%
Jharkhand	JBVNL	65	80.8	68%	4%	98%	81%	100%	6%	18	5%
Karnataka	CESCOM	7	4.3	100%	0%	91%	99%	100%	0%	57	11%
Karnataka	GESCOM	1	0.7	100%	1%	100%	100%	90%	2%	60	10%
Karnataka	HESCOM	202	0.0	100%	100%	90%	99%	93%	0%	60	8%
Karnataka	MESCOM	10	7.1	95%	95%	100%	100%	80%	0%	66	16%
Karnataka	BESCOM	3	1.0	92%	75%	100%	100%	35%	1%	60	91%
Kerala	KSEBL	88	72.0	96%	0%	2%	99%	100%	0%	30	76%
Kerela	TCED	-	4.6	99%	0%	6%	97%	69%	0%	12	58%

States	DISCOM	Average time taken for replacement of defective meters (Rural)	Average time taken for replacement of defective meters (Urban)	Bills generated based on actual meter reading	Bills generated on the basis of non-manual meter reading	% of domestic consumers being billed monthly	Bills generated for domestic category consumers in a year	Consumers receiving billing updates on mobile	Prepaid consumers	Tariff categories (incl. sub-categories and slabs)	Number of consumers paying digitally
Ladakh	Ladakh PDD	4	2.0	100%	0%	100%	91%	89%	0%	53	61%
Lakshadweep	Lakshadweep ED	-	3.7	100%	0%	0%	100%	100%	0%	24	54%
Madhya Pradesh	MPPoKVVCL	9	10.2	54%	7%	100%	98%	100%	3%	40	40%
Madhya Pradesh	MPPaKVVCL	1	2.0	58%	16%	99%	100%	99%	2%	42	33%
Madhya Pradesh	MPMKVVCL	4	2.6	62%	8%	94%	100%	95%	4%	6	90%
Maharashtra	AEML	-	0.8	100%	100%	100%	100%	100%	0%	21	96%
Maharashtra	MSEDCL	56	29.4	89%	5%	100%	100%	93%	0%	24	52%
Maharashtra	TPCL	-	0.1	100%	100%	100%	100%	100%	26%	22	90%
Maharashtra	BEST	-	0.1	97%	23%	100%	100%	89%	0%	41	54%
Manipur	MSPDCL	10	3.1	92%	91%	100%	92%	59%	87%	34	45%
Meghalaya	MePDCL	6	3.8	88%	17%	68%	100%	21%	3%	15	25%
Mizoram	Mizoram PD	3	5.3	96%	0%	100%	64%	92%	0%	31	39%
Nagaland	Nagaland PD	15	7.0	60%	0%	95%	91%	0%	10%	22	5%
Odisha	TPNODL	2	2.1	97%	93%	100%	99%	99%	7%	47	26%
Odisha	TPWODL	2	1.0	92%	90%	100%	100%	95%	0%	47	21%
Odisha	TPCODL	13	10.8	94%	80%	99%	100%	91%	3%	46	20%
Odisha	TPSODL	43	86.1	93%	93%	100%	94%	67%	1%	47	18%
Puducherry	PED	15	15.0	91%	6%	100%	100%	25%	0%	13	29%
Punjab	PSPCL	58	51.1	98%	17%	4%	98%	69%	56%	44	64%
Rajasthan	JVVNL	55	25.4	91%	9%	85%	100%	100%	0%	61	79%
Rajasthan	AVVNL	10	4.1	94%	2%	51%	99%	100%	0%	66	70%
Rajasthan	JdVVNL	16	21.7	85%	3%	7%	100%	90%	0%	62	31%
Sikkim	Sikkim PD	2	1.8	100%	1%	100%	97%	0%	20%	29	9%
Tamil Nadu	TNPDCL	18	15.0	98%	97%	100%	100%	100%	0%	26	77%
Telangana	TGSPDCL	2	2.6	98%	92%	100%	100%	100%	0%	83	66%
Telangana	TGNPDCL	2	1.3	98%	98%	100%	100%	79%	0%	83	65%
Tripura	TSECL	11	2.9	91%	0%	100%	89%	99%	17%	40	65%
Uttar Pradesh	NPCL	3	2.7	98%	94%	100%	100%	100%	31%	93	88%
Uttar Pradesh	PuVVNL	5	1.9	100%	40%	100%	100%	100%	0%	44	8%
Uttar Pradesh	DVVNL	21	19.4	96%	56%	100%	99%	100%	16%	54	32%
Uttar Pradesh	MVVNL	5	5.6	86%	38%	100%	99%	100%	1%	149	22%
Uttar Pradesh	PVVNL	5	2.3	86%	61%	100%	99%	100%	1%	148	35%
Uttar Pradesh	KESCO	-	3.9	99%	41%	100%	0%	100%	22%	148	41%
Uttarakhand	UPCL	20	17.6	95%	74%	56%	97%	83%	1%	56	41%
West Bengal	WBSEDCL	55	55.0	92%	2%	1%	99%	96%	0%	124	68%
National Average		**20.0**	**13.7**	**89%**	**49%**	**82%**	**97%**	**88%**	**9%**	**49.3**	**46%**

Note: "-" means data not available/ insufficient data or evidence document

ANNEXURE-B

(iv) Performance across parameters – Fault Rectification and Grievance Redressal

States	DISCOM	24x7 customer care call center	Facilities	Type of complaints attended	Average call waiting time at the call center	Consumers receiving outage related updates on mobile	Deviation from specified time for complaints resolution through call center (Rural)	Deviation from specified time for complaints resolution through call center (Urban)	Adequacy of Grievance Redressal Mechanism (Two Tier)	Number of CGRF's per 1 Lakh consumers
Andaman & Nicobar Islands	A&N PD	100%	2	4	155.0	100%	-3%	-100%	Yes	1
Andhra Pradesh	APEPDCL	100%	8	4	6.1	100%	-74%	-64%	Yes	0
Andhra Pradesh	APSPDCL	100%	8	4	15.3	100%	-33%	-29%	Yes	0
Andhra Pradesh	APCPDCL	100%	8	4	13.1	100%	-82%	-67%	Yes	0
Arunachal Pradesh	Arunachal PD	18%	8	4	3.8	93%	0%	0%	Yes	4
Assam	APDCL	100%	6	4	22.2	100%	-69%	81%	Yes	1
Bihar	SBPDCL	100%	8	4	27.5	100%	-2%	-1%	No	0
Bihar	NBPDCL	100%	8	4	25.0	100%	-2%	-1%	No	0
Chhattisgarh	CSPDCL	100%	8	4	13.4	100%	-77%	-62%	Yes	0
Delhi	BRPL	100%	8	4	5.3	100%	0%	-99%	Yes	0
Delhi	BYPL	100%	8	4	1.7	100%	0%	-66%	Yes	0
Delhi	NDMC	0%	3	4	4.9	0%	0%	0%	Yes	0
Delhi	TPDDL	100%	8	4	5.4	100%	0%	-62%	Yes	0
Goa	Goa PD	100%	7	4	10.8	100%	-59%	-31%	Yes	2
Gujarat	MGVCL	100%	8	4	6.1	100%	-76%	-75%	Yes	0
Gujarat	UGVCL	100%	8	4	9.0	100%	-90%	-89%	Yes	0
Gujarat	DGVCL	100%	8	4	24.2	100%	-92%	-93%	Yes	0
Gujarat	PGVCL	100%	6	4	5.2	100%	-92%	-93%	Yes	5
Haryana	UHBVNL	100%	8	4	28.1	100%	-91%	-78%	Yes	0
Haryana	DHBVNL	100%	8	4	24.2	100%	-69%	-44%	Yes	1
Himachal Pradesh	HPSEBL	100%	7	4	95.4	100%	-64%	-59%	Yes	0
Jammu & Kashmir	KPDCL	100%	7	4	167.6	100%	-51%	-57%	Yes	8
Jammu & Kashmir	JPDCL	100%	6	4	19.3	0%	-82%	-73%	Yes	1
Jharkhand	JBVNL	31%	8	4	27.9	0%	89%	86%	Yes	0
Karnataka	GESCOM	100%	8	4	5.8	100%	-87%	-89%	Yes	0
Karnataka	MESCOM	100%	1	4	15.0	100%	-88%	-81%	Yes	0
Karnataka	CESCOM	100%	7	4	25.0	100%	-14%	-15%	Yes	0
Karnataka	HESCOM	100%	6	4	16.5	0%	-57%	-24%	Yes	0
Karnataka	BESCOM	100%	5	4	12.3	100%	-85%	-45%	Yes	0
Kerala	KSEBL	100%	8	4	56.3	100%	-61%	-39%	Yes	0
Kerela	TCED	0%	0	0	0.0	100%	0%	-17%	Yes	2
Ladakh	Ladakh PDD	0%	0	0	0.0	0%	0%	0%	Yes	13
Lakshadweep	Lakshadweep ED	0%	0	0	0.0	100%	0%	0%	Yes	4

States	DISCOM	24x7 customer care call center	Facilities	Type of complaints attended	Average call waiting time at the call center	Consumers receiving outage related updates on mobile	Deviation from specified time for complaints resolution through call center (Rural)	Deviation from specified time for complaints resolution through call center (Urban)	Adequacy of Grievance Redressal Mechanism (Two Tier)	Number of CGRF's per 1 Lakh consumers
Madhya Pradesh	MPMKVVCL	100%	8	4	3.7	100%	-18%	-70%	Yes	0
Madhya Pradesh	MPPaKVVCL	100%	8	4	2.0	100%	-82%	-68%	Yes	0
Madhya Pradesh	MPPoKVVCL	100%	8	4	0.0	100%	-37%	-38%	Yes	0
Maharashtra	AEML	100%	8	4	1.0	100%	0%	-71%	Yes	1
Maharashtra	MSEDCL	100%	8	4	13.0	100%	-62%	-90%	Yes	0
Maharashtra	BEST	0%	0	0	0.0	100%	0%	0%	Yes	1
Maharashtra	TPCL	100%	8	4	2.8	100%	0%	-88%	Yes	1
Manipur	MSPDCL	100%	6	4	0.0	100%	-20%	-33%	Yes	13
Meghalaya	MePDCL	100%	8	4	50.4	0%	-17%	-33%	Yes	1
Mizoram	Mizoram PD	0%	0	0	0.0	0%	0%	0%	Yes	0
Nagaland	Nagaland PD	0%	3	4	0.0	0%	0%	0%	Yes	1
Odisha	TPCODL	100%	8	4	13.3	100%	-99%	-99%	Yes	0
Odisha	TPWODL	100%	8	4	25.8	100%	-77%	-83%	Yes	0
Odisha	TPNODL	100%	8	4	6.5	100%	-68%	-61%	Yes	0
Odisha	TPSODL	100%	8	4	39.9	100%	-61%	-46%	Yes	0
Puducherry	PED	100%	4	4	4.4	100%	0%	0%	Yes	0
Punjab	PSPCL	100%	8	4	18.9	100%	-45%	8%	Yes	1
Rajasthan	JdVVNL	100%	8	4	18.0	100%	-66%	-66%	Yes	0
Rajasthan	JVVNL	100%	7	4	47.7	100%	-68%	-74%	Yes	0
Rajasthan	AVVNL	100%	7	4	6.3	100%	-84%	-67%	Yes	0
Sikkim	Sikkim PD	100%	4	4	0.0	0%	0%	0%	Yes	4
Tamil Nadu	TNPDCL	100%	6	4	18.9	100%	-54%	-48%	Yes	1
Telangana	TGSPDCL	100%	7	4	6.2	100%	-96%	-93%	Yes	0
Telangana	TGNPDCL	100%	8	4	31.2	100%	-20%	-3%	Yes	4
Tripura	TSECL	100%	7	4	25.7	100%	-21%	-8%	Yes	3
Uttar Pradesh	NPCL	100%	8	4	16.7	100%	-30%	-38%	Yes	2
Uttar Pradesh	PuVVNL	100%	8	4	12.9	100%	-78%	-78%	Yes	0
Uttar Pradesh	DVVNL	100%	8	4	9.9	100%	-77%	-82%	Yes	5
Uttar Pradesh	MVVNL	100%	8	4	8.9	100%	-45%	-45%	Yes	0
Uttar Pradesh	PVVNL	100%	8	4	5.7	100%	-55%	-20%	Yes	0
Uttar Pradesh	KESCO	100%	8	4	10.0	100%	0%	-21%	Yes	1
Uttarakhand	UPCL	100%	8	4	15.9	100%	-3%	-11%	Yes	0
Maharashtra	AEML	100%	8	4	1.0	100%	0%	-71%	Yes	1
West Bengal	WBSEDCL	100%	8	4	73.1	100%	-83%	-76%	Yes	0
National Average		**87%**	**6.60**	**3.70**	**22.66**	**86%**	**-41%**	**-44%**	**-**	**1**

Note: "-" means data not available/ insufficient data or evidence document

ANNEXURE-C

Category specific consumer coverage

States	DISCOM	Total Consumers (in lakhs)	Rural-Urban Ratio		Category-specific consumer coverage				
			Rural	Urban	Domestic	Non-Domestic / Commercial	Industrial	Agricultural	Others
Andaman & Nicobar Islands	A&N PD	1.56	58%	42%	84%	14%	0%	0%	2%
Andhra Pradesh	APEPDCL	72.43	65%	35%	84%	9%	0%	4%	3%
Andhra Pradesh	APSPDCL	72.55	54%	46%	73%	8%	1%	16%	2%
Andhra Pradesh	APCPDCL	52.76	57%	43%	79%	9%	0%	9%	2%
Arunachal Pradesh	Arunachal PD	3.07	49%	51%	88%	12%	0%	0%	1%
Assam	APDCL	70.54	85%	15%	91%	6%	0%	1%	2%
Bihar	SBPDCL	73.29	68%	32%	84%	9%	1%	6%	1%
Bihar	NBPDCL	115.20	86%	14%	89%	8%	1%	3%	1%
Chhattisgarh	CSPDCL	64.80	70%	30%	79%	7%	1%	13%	1%
Delhi	BRPL	31.33	0%	100%	88%	12%	0%	0%	0%
Delhi	BYPL	20.04	0%	100%	78%	21%	0%	0%	0%
Delhi	NDMC	0.58	0%	100%	65%	35%	0%	0%	0%
Delhi	TPDDL	20.64	0%	100%	85%	13%	1%	0%	0%
Goa	Goa PD	7.17	61%	39%	80%	17%	1%	2%	0%
Gujarat	MGVCL	36.30	55%	45%	81%	12%	0%	6%	1%
Gujarat	UGVCL	43.10	75%	25%	76%	10%	2%	11%	2%
Gujarat	DGVCL	37.99	45%	55%	77%	12%	3%	6%	1%
Gujarat	PGVCL	60.56	57%	43%	66%	11%	2%	19%	1%
Haryana	UHBVNL	34.57	56%	44%	78%	11%	1%	10%	0%
Haryana	DHBVNL	39.75	55%	45%	86%	11%	2%	0%	1%
Himachal Pradesh	HPSEBL	28.60	78%	22%	83%	13%	1%	2%	1%
Jammu & Kashmir	KPDCL	11.93	63%	37%	83%	15%	1%	0%	1%
Jammu & Kashmir	JPDCL	12.12	69%	31%	85%	11%	1%	2%	1%
Jharkhand	JBVNL	54.64	66%	34%	84%	14%	0%	2%	0%
Karnataka	GESCOM	37.60	72%	28%	73%	9%	2%	12%	3%
Karnataka	MESCOM	27.33	68%	32%	71%	9%	1%	16%	3%
Karnataka	CESCOM	38.32	63%	37%	73%	8%	1%	13%	4%
Karnataka	HESCOM	53.91	73%	27%	68%	8%	2%	19%	3%
Karnataka	BESCOM	119.21	39%	61%	78%	10%	2%	8%	2%
Kerala	KSEBL	139.49	79%	21%	76%	19%	1%	4%	1%

States	DISCOM	Total Consumers (in lakhs)	Rural-Urban Ratio		Category-specific consumer coverage					
			Rural	Urban	Domestic	Non-Domestic / Commercial	Industrial	Agricultural	Others
Kerela	TCED	0.43	0%	100%	54%	43%	1%	0%	1%
Ladakh	Ladakh PDD	0.76	65%	35%	82%	15%	1%	0%	2%
Lakshadweep	Lakshadweep ED	0.27	0%	100%	77%	19%	1%	0%	3%
Madhya Pradesh	MPMKVVCL	51.15	61%	39%	73%	8%	1%	19%	1%
Madhya Pradesh	MPPaKVVCL	61.02	64%	36%	67%	8%	1%	23%	1%
Madhya Pradesh	MPPoKVVCL	67.93	71%	29%	74%	7%	1%	17%	1%
Maharashtra	MSEDCL	308.02	52%	48%	75%	7%	1%	15%	1%
Maharashtra	BEST	10.38	0%	100%	74%	25%	1%	0%	0%
Maharashtra	TPCL	7.81	0%	100%	93%	6%	1%	0%	0%
Manipur	MSPDCL	5.26	63%	37%	94%	6%	0%	0%	0%
Meghalaya	MePDCL	7.01	68%	32%	94%	6%	0%	0%	1%
Mizoram	Mizoram PD	3.00	38%	62%	91%	7%	0%	0%	2%
Nagaland	Nagaland PD	3.25	41%	59%	91%	6%	1%	0%	1%
Odisha	TPCODL	29.51	75%	25%	90%	8%	0%	1%	1%
Odisha	TPWODL	20.11	79%	21%	88%	5%	0%	4%	2%
Odisha	TPNODL	19.77	85%	15%	90%	6%	0%	1%	2%
Odisha	TPSODL	22.64	82%	18%	91%	5%	0%	2%	2%
Puducherry	PED	4.97	64%	36%	79%	13%	1%	1%	5%
Punjab	PSPCL	106.98	64%	36%	74%	12%	1%	13%	0%
Rajasthan	JdVVNL	49.25	71%	29%	80%	8%	2%	10%	0%
Rajasthan	JVVNL	57.03	59%	41%	77%	9%	2%	11%	0%
Rajasthan	AVVNL	60.12	77%	23%	80%	7%	1%	11%	0%
Sikkim	Sikkim PD	1.35	76%	24%	87%	10%	1%	0%	2%
Tamil Nadu	TNPDCL	340.51	53%	47%	71%	11%	2%	7%	8%
Telangana	TGSPDCL	106.78	42%	58%	74%	11%	0%	13%	1%
Telangana	TGNPDCL	60.48	53%	47%	68%	9%	0%	22%	2%
Tripura	TSECL	10.01	48%	52%	89%	8%	1%	1%	2%
Uttar Pradesh	NPCL	1.75	12%	88%	91%	4%	3%	1%	2%
Uttar Pradesh	PuVVNL	107.00	77%	23%	89%	6%	0%	4%	1%
Uttar Pradesh	DVVNL	68.50	71%	29%	87%	6%	1%	5%	2%
Uttar Pradesh	MVVNL	99.46	66%	34%	90%	7%	0%	3%	1%
Uttar Pradesh	PVVNL	76.93	51%	49%	83%	8%	1%	7%	1%
Uttar Pradesh	KESCO	7.44	0%	100%	83%	13%	2%	0%	2%
Uttarakhand	UPCL	27.09	69%	31%	87%	10%	1%	2%	1%
Maharashtra	AEML	26.69	0%	100%	82%	17%	1%	0%	0%
West Bengal	WBSEDCL	235.23	81%	19%	88%	10%	0%	2%	0%
Total Consumers (in lakhs)		**3447.27**							

Note: "-" means data not available/ insufficient data or evidence document

ANNEXURE-D

Framework – Description and Measurement of Parameters

Parameter	Description & Measurement Method	Data Source
Operational Reliability *(45 Marks)*		
Hours of Supply *(34 Marks)*	• Average daily electricity supply duration (in hours) in urban, rural and industrial 11 kV feeders • Feeders at higher voltage level will not be included • Mixed feeders will be classified basis the dominant consumer type (number of consumers to be considered and not quantum of connected load) • Standby feeders which remain unutilized for full month not to be considered for calculation • For ease of calculation, average will not be weighted by number of consumers or load on the feeders • Scheduled as well as unscheduled outages included • Interruptions of less than 5 minutes to be neglected	Data to be submitted by DISCOMs along with supporting documents. NFMS data for Rural & Urban feeder shall be used to compute the final figures based on pre-defined weightages. Data shall be validated against evidence documents submitted by the DISCOM
Interruption Index *(7 Marks)*	• Feeders at 11kV voltage level will be included • Average will be calculated for the total number of feeders, leading to No. of interruptions per feeder for the year • Only unscheduled outages included • Interruptions of less than 5 minutes to be neglected	Data to be submitted by DISCOMs along with supporting documents. NFMS data for Rural & Urban feeder shall be used to compute the final figures based on pre-defined weightages. Data shall be validated against evidence documents submitted by the DISCOM
DT Failure Rate *(4 Marks)*	• Number of DT failures as a percentage of total DTs • Total DTs = Average of the number of DTs at the beginning and end of the period under consideration • All DTs across voltage levels to be considered for assessment	Data to be submitted by DISCOM along with supporting documents. Data shall be validated against evidence documents submitted by the DISCOM

[1]Evidence documents may include system generated reports, regulatory filings, independent body reports etc.

Parameter	Description & Measurement Method	Data Source
Connection and Other Services *(10 Marks)*		
Alignment of regulation (SOP/supply code) with industry best practices: i. Release of connection ii. Testing of meters iii. Replacement of meters iv. Issuance of no dues certificates to applicants v. Provision for payment of claims on deviation from SoP vi. Assessing feasibility of rooftop solar installation vii. Connection of rooftop solar after installation *(Negative 2 Marks for non-alignment)*	• Alignment of regulation (SOP/supply code) will be benchmarked with respect to timelines mentioned in Electricity (Rights of Consumer) Rules 2020 as highlighted below: – *Release of connection*: < 7 days in metro cities, < 15 days in other municipal areas and < 30 days in rural areas – *Testing of meters*: < 30 days of receipt of the complaint from the consumer – *Replacement of meters*: < 24 hours in urban areas and < 72 hours in rural areas – *Issuance of no dues certificates*: < 7 days from the receipt of final payment – *Provision for payment of claims on deviation from SoP:* Payment of claims made by consumers against non-adherence of Standards of Performance (SOP) by the utility o *Assessing feasibility of rooftop solar installation*: < 20 days – *Connection of rooftop solar after installation*: < 30 days from the date of submission of installation certificate	Copy of regulations notified by the regulatory commission. Supporting documents to submitted by the DISCOM for verification of data.
Predetermined demand charges for up to 150kW *(Negative 1 Marks for non-alignment)*	• Whether regulations provide for having predetermined demand charges for up to 150kW consumers	Copy of regulations notified by the regulatory commission
Applications processed through online portal (2 *Marks)*	• Number of applications for issuing a new electricity connection processed and approved online (submission till approval) vis-à-vis the total applications approved in the period to be considered • An application shall be treated to have been processed online even if it is received in physical format provided it is entered into the computer system and the remaining processing is predominantly online, except for few processes in the same office.	Data to be submitted by DISCOM along with supporting documents. Data shall be validated against evidence documents submitted by the DISCOMs

Parameter	Description & Measurement Method	Data Source
Average deviation from SoP in time taken for providing connection *(7 Marks)*	• Each category of consumers for which a different timeline for providing electricity connection starting from date of receipt of application to energization of meter, shall be considered as a category • Category wise average deviation (+/-) in percentage from specified timeline shall be calculated • DISCOM average deviation in percentage shall be calculated, weighted by the number of connections of each category given in the period under consideration	Data to be submitted by DISCOMs along with supporting documents. Data shall be validated against evidence documents submitted by the DISCOMs
Prosumers *(1 Mark)*	• Prosumers (under net or gross metering) per lakh of total number of consumers, as on the end of the period under consideration	Data to be submitted by DISCOM along with supporting documents. Data shall be validated against evidence documents submitted by the DISCOM
Metering, Billing and Collection *(35 Marks)*		
Replacement of Defective Meters *(1+1 Mark)*	• Average time taken for replacement of defective meters in – Urban areas – Rural areas	Data to be submitted by DISCOMs along with supporting documents. Data shall be validated against evidence documents submitted by the DISCOMs
Bills generated based on actual meter reading *(4 Marks)*	• Percentage of bills generated on actual readings vis-à-vis total bills generated • Only actual meter readings from working meters to be considered (not including provisional, average, flat rate and unmetered billing, faulty/burnt meter, locked premises etc.) • Total bills generated to include metered and unmetered connections	Data to be submitted by DISCOM along with supporting documents. Data shall be validated against evidence documents submitted by the DISCOMs
Bills generated through non-manual meter reading *(7 Marks)*	• Bills generated through non-manual meter reading process (i.e., smart meters, AMR meters, port-based/ Bluetooth/IR handheld meter reading devices, etc.) vis-à-vis total bills generated shall be calculated	Data to be submitted by DISCOM along with supporting documents. Data shall be validated against evidence documents submitted by the DISCOM
Billing frequency for domestic category consumers as per regulations *(Negative1 mark for non-monthly billing)*	• DISCOMs are to submit the SOP for billing frequency of Domestic Category consumers. • No. of consumers in each billing frequency to be submitted.	Data to be submitted by DISCOM along with supporting documents. Data shall be validated against evidence documents submitted by the DISCOM

Parameter	Description & Measurement Method	Data Source
Number of bills generated for domestic category consumers *(3 Marks)*	• Parameter to be calculated based on the data provided for total no. of bills generated & Billing frequency of Domestic category consumers • All bills generated for all consumer under domestic category in a year - Full marks	Data to be submitted by DISCOMs along with supporting documents. Data shall be validated against evidence documents submitted by the DISCOM
Consumers receiving billing updates on mobile *(3 Marks)*	• Percentage of consumers receiving bills on mobile • Would be measured as (Total bill related SMS received) / (No of bills received)	Data to be submitted by DISCOMs along with supporting documents. Data shall be validated against evidence documents submitted by the DISCOM
Prepaid consumers *(8 Marks)*	• Consumers under prepaid metering as a percentage of total number of consumers as at the end of the period under consideration, shall be calculated	Data to be submitted by DISCOM along with supporting documents. Data shall be validated against evidence documents submitted by the DISCOM
Tariff categories (incl. sub-categories and slabs) *(2 Marks)*	• Number of tariff categories including subcategories and tariff slabs	Data to be submitted by DISCOM along with supporting documents. Data shall be validated against evidence documents submitted by the DISCOM
Number of consumers paying digitally *(6 Marks)*	• Percentage of consumers making payments through digital channels (net-banking, credit/ debit cards, UPI, payment wallets, etc.) vis-à-vis total number of consumers – Prepaid consumers making payments digitally to be included in calculation of the percentage	Data to be submitted by DISCOM along with supporting documents. Data shall be validated against evidence documents submitted by the DISCOM

Parameter	Description & Measurement Method	Data Source
Fault Rectification and Grievance Redressal *(10 Marks)*		

24x7 customer care call centre with common code '1912'
(2 Marks)
	• Coverage will be calculated as a % of consumers covered by the Toll Free 24x7 Call Centre, as at the end of the period under consideration
	• Equipped with modern features
	  – IVRS facility
	  – Computer telephony integration
	  – Automatic call distributor systems
	   – System built complaint escalation mechanism o Status alert to consumer
	   – Mechanism for verification of closure of complaints
	   – Data analytics for insights
	   – Message chatbots
	• Types of complaints registered
	   – Supply
	   – Commercial
	   – Safety
		Data to be submitted by DISCOM along with supporting documents. Data shall be validated against evidence documents submitted by the DISCOM

Average customer call waiting time *(1 Mark)*	• Average wait time (in seconds) for consumers (on 24x7 consumer care call centre helpline) while calling for registration of complaints (from call connection to initiation of conversation with consumer care representative)	Data to be submitted by DISCOMs along with supporting documents. Data shall be validated against evidence documents submitted by the DISCOM
Outage alerts through registered mobile *(2 Marks)*	• DISCOM shall be marked based on the percentage of consumers registered to received outage alerts being provided by the DISCOM.	Data to be submitted by DISCOMs along with supporting documents. Data shall be validated against evidence documents submitted by the DISCOM
Deviation from specified time for complaints resolution through call centre *(4 Marks)*	• Category wise average deviation (+/-) in percentage from the specified timeline in resolving the complaint shall be calculated. • DISCOM average deviation in percentage shall be calculated, with 2 marks for Rural & Urban category each • DISCOM to provide the SOP as well the category of complaints, for which data is provided.	Data to be submitted by DISCOM along with supporting documents Data shall be validated against evidence documents submitted by the DISCOM REC or REC appointed agency to validate the data basis evidence documents shared by DISCOMs
Adequacy of Grievance Redressal Mechanism *(1 Mark)*	• Whether two tier grievance redressal mechanism has been established by the DISCOM as per regulations specified by the SERC or not? • Whether adequate number of Consumer Grievance Redressal Forums (CGRF) have been established. Calculated as number of CGRFs per 100,000 consumers	Data to be submitted by DISCOM along with supporting documents. Data shall be validated against evidence documents submitted by the DISCOM

ANNEXURE-E

Marking Methodology Framework

Parameter	Unit	Marks	Scoring
Operational Reliability *(45 Marks)*			
Hours of Supply	Hours / day	34	Rural (Total marks for Rural = A) • HoS > 22 hrs *(Full Marks)* • HoS <16 hrs *(No Marks)* • 16 <= HoS <=22 hrs *(Proportionate Marks)* Urban (Total marks for Urban = B) • HoS = 24 hrs (Full Marks) • HoS < 17 hrs *(No Marks)* • 17 <= HoS < 24 hrs *(Proportionate Marks)* Industrial (4 marks) • HoS = 24 hrs (Full Marks) • Under < 23 hrs (No Marks) • 23 <= HoS < 24 hrs (Proportionate Marks) (A+B) to constitute 30 marks where ratio of A and B is determined basis proportion of Rural & Urban consumers and in DISCOMs which do not have any industrial consumers, (A+B) to constitute 34 Marks.
Interruption Index (II)	Interruptions / Feeder / Year	7	Rural (Total marks for Rural = X) • II < 60 (Full Marks) • II >720 (No Marks) • 60 <= II <= 720 (Proportionate Marks) Urban (Total marks for Rural = Y) • II < 20 (Full Marks) • II > 420 (No Marks) • 20 <= II <= 420 (Proportionate Marks) Industrial (1 mark) • <10 (Full Marks) • >280 (No Marks) • 10<= II <= 280 (Proportionate Marks) (X + Y) to constitute 6 marks where ratio of X and Y is determined basis proportion of Rural & Urban feeders and in DISCOMs which do not have any industrial feeders, (A+B) to constitute 7 Marks.
DT Failure Rate	%	4	• Failure at <= 4% *(Full Marks)* • Failure at >14% *(No Marks)* • 4% < Failure <= 14% *(Proportionate Marks)*

Parameter	Unit	Marks	Scoring
Connection and Other Services (10 Marks)			
Alignment of regulations with industry best practices w.r.t Timelines i.　Release of connection ii.　Testing of meters iii.　Replacement of meters iv.　Issuance of no dues certificates to applicants v.　Provision for payment of claims on deviation from SoP vi.　Assessing feasibility of rooftop solar installation vii.　Connection of rooftop solar after installation	Yes/No	0 (-2)	• If all the 7 parameters are aligned to industry best practices (0 Mark) • Non-alignment of any of the 7 parameters (-2/7 Mark each)
Presence of predetermined demand charges for connections up to 150kW	Yes/No	0 (-1)	• Yes *(0 Marks)* • No *(-1 Mark)*
Applications processed through online portal (Submission till approval)	%	2	• Highest % (Full marks) • Lowest % (No Marks) • Remaining (Proportionate Marks)
Average deviation from SoP in time taken for providing connection	%	7	• X (Average days taken) = Sum product of Total no. of connections released monthly & Average days taken for release of new connection) / Total no. of connections released for the year • Y (Deviation from SoP) = (X-SOP Day)/SoP If Y: • Within prescribed SOP timelines *(Full Marks)* • >20% Deviation from SOP *(No marks)* • 0 - 20% Deviation *(Proportionate Marks)* Marks are divided for each category of consumers as follows: ·　Full Marks for each category: (Number of connections released in the particular category / Total number of Connections released) * 7
No. of Prosumers (under net or gross metering)	per lakh consumers	1	• Highest % *(Full marks)* • Lowest % *(No Marks)* • Remaining *(Proportionate Marks)*

Parameter	Unit	Marks	Scoring
Metering, Billing and Collection *(35 marks)*			
Average time taken (days) for replacement of defective meters (Urban)	Days	1	Least No. of days *(Full marks)* Highest No. of days *(No Marks)* Remaining *(Proportionate Marks)*
Average time taken (days) for replacement of defective meters (Rural)	Days	1	For Purely Urban DISCOMs, 0 marks to be allocated for this parameter and 2 marks to be allocated for the parameter "Average time taken (days) for replacement of defective meters (Urban)"
Bills generated based on actual meter reading	%	4	• >95% (Full Marks) • <65% (No Marks) • >=65% and <=95% (Proportionate Marks)
Bills generated on the basis of non-manual meter reading	%	7	• Highest % *(Full marks)* • Lowest % *(No Marks)* • Remaining *(Proportionate Marks)*
Billing frequency for domestic category consumers as per regulations	Monthly/ Bimonthly	0 (-1)	If domestic consumers are: • Billed completely on monthly cycle *(0 Marks)* • Various billing cycles *(Proportionate Negative Marks based on % of non-monthly billing cycle)*
Bills generated for domestic category consumers in a year	Number	3	• All bills generated for domestic consumers as per SOP *(Full Marks)* • Otherwise *(Marks proportionate to % bills generated vis-à-vis no. of bills to be generated as per SOP)*
Consumers receiving billing updates on mobile	%	3	If billing alerts are provisioned for • All consumers - Full Marks • Some consumers - Proportionate marks
Prepaid consumers	%	8	• Highest % (Full marks) • Lowest % (No Marks) • Remaining (Proportionate Marks)
Tariff categories (incl. sub-categories and slabs)	Number	2	• Least No. of categories *(Full Marks)* • Highest No. of categories *(No Marks)* • Remaining *(Proportionate Marks)*
Number of consumers paying digitally	%	6	• Highest % *(Full Marks)* • Lowest % *(No Marks)* • Remaining *(Proportionate Marks)*

Parameter	Unit	Marks	Scoring
Fault Rectification and Grievance Redressal *(10 marks)*			
24x7 customer care call center with common code '1912'	(a) % (b) Yes/No (c) Yes/No	2	• (a) Coverage (33.33% marks of total): Proportionate marks, based on the % of consumers covered. • (b) Equipped with modern features (33.33% marks of total) – 5 or more modern features *(Full Marks)* – 4 Modern features (Half Marks) – Less than 4 features (No Marks) • (c) Types of complaints registered (33.33% marks of total) – Supply, commercial, safety *(Full Marks)* – Supply & commercial *(Half Marks)* – Supply & safety *(Half Marks)* – Only Outages *(No Marks)*
Average call waiting time at the call center	Seconds	1	• < 30 seconds *(Full Marks)* • >120 seconds or no call center *(No Marks)* • Remaining *(Proportionate Marks)*
Consumers receiving outage related updates on mobile	%	2	• If Outage alerts are provisioned for all consumers - Full Marks • Otherwise - Proportionate marks as follows: >= 75% - <100 >= 50% - <75 >= 25% - <50 < 25
Deviation from specified time for complaints resolution through call center (Rural & Urban)	%	2 + 2	Average Time taken for resolving all complaints (within and beyond SoP) for Rural and Urban: • 100% Within specified limit *(Full marks)* • >20% Deviation over limit *(No marks)* • Deviation 0 - 20% *(Proportionate marks)*
Adequacy of Grievance Redressal Mechanism	Yes/No	1 (0.5 + 0.5)	• Two Tier Grievance Redressal Mechanism (50% marks of total) – Present *(Full marks)* – Not Present *(No marks)* • Number of CGRFs per 1 Lakh consumers (50% marks of total) – Highest (Full Marks) – Lowest (No Marks) – Remaining (Proportionate Marks)

ANNEXURE-F
Working Sheet

1. Operational Reliability

a. Hours of Supply & Interruption Index

Availability of NFMS Data Set		Final Value for HoS/Interruptions Index
Scenario I	For all the months	Weighted Average (NFMS- 60% & CSRD- 40%)
Scenario II	Few months (Value for missing Month= (CSRD of respective month) *(1 – Deviation^a))	Weighted Average (NFMS- 60% & CSRD- 40%)
Scenario III	No Month (Value for missing Month= (CSRD of respective month) *(1 – NAD^b))	Weighted Average (NFMS- 60% & CSRD- 40%)

i.   NAD – National Average Deviation (HOS/II)

ii. NFMS – National Feeder Monitoring System

Deviation %: *(Avg CSRD – Avg NFMS) / (Avg CSRD)*

Note:

i.   *Avg CSRD: Average taken of all 12 months CSRD data filled by DISCOM.*

ii. *Avg NFMS: Average taken of all the months for which NFMS data is available.*

NAD %: *(Avg CSRD – Avg NFMS) / (Avg CSRD)*

Note:

i.   *Avg CSRD: Yearly average value of all the DISCOMs.*

ii. *Avg NFMS: Yearly average value of all the DISCOMs which are available.*

In the CSRD exercise, we compare the annual average (calculated from the monthly figures) Hours of supply and Interruption Index based on data sheet sent by the DISCOM and the NFMS data.

HoS Calculation

The total marks assigned to the HoS parameter is 34 which is further divided into 3 categories Rural, Urban & Industrial. Marks distribution are as follows:

i.   Rural + Urban = 30 Marks

   •   Rural = 30* (Total No. of Rural consumers / Total Nos. of Consumers)

   •   Urban = 30* (Total No. of Urban consumers / Total Nos. of Consumers)

ii. Industrial = 4 Marks

Note: For DISCOMs with No industrial consumers, weightage for the Rural + Urban will be 34 Marks

Interruption Index Calculation

A total 7 marks assigned to the Interruption Index parameter, which is further divided into 3 categories Rural, Urban & Industrial. Marks distribution are as follows:

i.   **Rural + Urban** = 6 Marks

   •   Rural = 6* [Total No. of Rural Feeders / (Total Nos. of Urban Feeders + Rural Feeders)]

   •   Urban = 6* [Total No. of Urban Feeders / (Total Nos. of Urban Feeders + Rural Feeders)]

ii. **Industrial** = 1 Mark

Note: For DISCOMs with No industrial Feeders, weightage for the Rural + Urban will be 7 Marks

b.   **Distribution Transformer (DT) Failure Rate (excluding Agricultural DTs)** = 100* (Total No. of DTs Failed / Total No. Of DTs)

2. Connection and Other Services

a.   **Percentage of Applications processed through online portal =** 100* (Total Nos. of new connections released (including all categories) via online processing / Total Nos. of new connections released)

b.   **Average deviation from SoP in time taken for providing New connection =** Weighted average of total Nos. of new connections released across all the categories * Deviation

   a. Weighted Average Days for release of new connection = (Sum product of total Nos. of connections / Average Nos. of days taken for release) / Total Nos. of connections released

   b. Deviation = (Weighted Average Days for release of new connection - SOP days) / SOP days

c.   **Prosumers (under net or gross metering) / per lakh consumers =** (Total Nos. of prosumers * 1,00,000) / Total number of consumers

3. Metering, Billing and Collection

a.   **Average time taken for replacement of defective meters =** (Month wise Average Nos. of days taken for replacement of meters * Month wise Nos. of meters replaced) / Sum of Total Nos. of meters replaced across all the months

b.   **Percentage of Bills generated through actual meter readings =** 100* (Total Nos. of Bills generated on actual meter readings / Total Nos. of bills generated)

c.   **Percentage of Bills generated through non-manual readings =** 100* (Total Nos. of Bills generated through Non manual meter readings/ Total Nos. of bills generated)

d.   **Billing frequency for domestic category consumers (% of consumers with monthly billing) =** 100* (Number of domestic consumers billed monthly/ Total Nos. of domestic consumers)

e.   **Percentage of Bills generated for domestic category consumers in a year =** 100* (Total Nos. of bills generated for domestic consumer in a year/Nos. of bills required to be generated)

f.   **Nos. of bills required to be generated =** (Nos. of consumers billed monthly*12) + (Nos. of consumers with bi-monthly billing*6) + (Nos. of consumers with quarterly billing*4) + (Nos. of other consumers with different billing frequency * Frequency of billing for 'other' category)

g.   **Percentage of Consumers receiving billing updates on mobile =** 100* (Consumers receiving for SMS alert / Total Nos. of consumer)

h.   **Percentage of Prepaid consumers = Percentile Rank=** (Number of Discom below X) / (N+1) ×100

X: Discom whose percentile rank is being calculated

N: Total number of Discoms in the dataset

i.   Percentage of consumers paying digitally = 100* (Total Nos. of digital and online payments/ Total Nos. of bills generated)

4. Fault Rectification and Grievance Redressal

a.   **Percentage of consumers registered in 24x7 customer care call center =** 100* (Nos of Consumers for whom 24x7 consumer care helpline exists / Total Nos of Consumers)

b.   **Percentage of Consumers receiving outage related updates on mobile =** 100* (Nos. of consumers whose mobile numbers are registered to receive outage alerts/ Total Nos. of consumers)

c.   **Deviation from specified time for complaints resolution through call center =** {Average Time taken for resolving all complaints (within and beyond SoP) - SOP Timelines for Complaint Resolution} / SOP Timelines for Complaint Resolution

ANNEXURE-G

Acronyms

Acronyms	Full Form
ACS	Average Cost of Supply
AI	Artificial Intelligence
AMR	Automated Meter Reading
ARR	Average Revenue Realized
AT&C Losses	Aggregate Technical and Commercial Losses
BU	Billion Units
CGRF	Consumer Grievance Redressal Forums
ckms	circuit kilometers
CMD	Chairman and Managing Director
CoS	Connections and other Services
CPSU	Central Public Sector Undertaking
CSRD	Consumer Service Rating of DISCOMs
DDUGJY	Deendayal Upadhyaya Gram Jyoti Yojana
DT	Distribution Transformer
E&M	Electro-Mechanical
EOL	Ease of Living
FRGR	Fault Rectification and Grievance Redressal
FY	Financial Year
G20	Group of 20
GoI	Government of India
GW	Gigawatt
Hon'ble	Honorable
HoS	Hours of Supply
HT	High Tension
IAS	Indian Administrative Services
II	Interruption Index
IPDS	Integrated Power Development Scheme
IT/OT	Information Technology / Operational Technology
KPI	Key Performance Indicators
KV	Kilo Volt
kW	Kilo Watt
LT	Low Tension

Acronyms	Full Form
MBC	Metering, Billing and Collection
MIS	Management Information System
ML	Machine Language
MOP	Ministry of Power
NAD	National Average Deviation
NBFC	Non-Banking Financial Company
NEF	National Electricity Fund
NFMS	National Feeder Monitoring System
NPP	National Power Portal
OR	Operational Reliability
PLI	Production Linked Incentive
RAPDRP	Restructured Accelerated Power Development and Reforms Programme
RDSS	Revamped Distribution Sector Scheme
RE	Renewable Energy
RFMS	Rural Feeder Management System
ROs	Regional Offices
Saubhagya	Pradhan Mantri Sahaj Bijli Har Ghar Yojana
SC	Special Category
SMS	Short Message Service
SoP	Standards of Performance
SOP	Standard Operating Procedures
Sq.km.	Square Kilometers
UDAY	Ujjwal DISCOM Assurance Yojana
USD	United States dollar
UTs	Union Territories
w.r.t	With Respect To

- **Urban DISCOMs:** *DISCOMs with 100% urban consumers*
- **General DISCOMs:** *DISCOMs other than 'Urban DISCOMs'*

Acronyms of Indian DISCOMs

Acronyms	Full Form
A&N PD	Electricity Department, UT of Andaman & Nicobar
AEML	Adani Electricity Mumbai Ltd.
APCPDCL	Andhra Pradesh Central Power Distribution Company Limited
Arunachal PD	Department of Power, Arunachal Pradesh
APDCL	Assam Power Distribution Company Limited
APEPDCL	Andhra Pradesh Eastern Power Distribution Company
APSPDCL	Andhra Pradesh Southern Power Distribution Company Limited
AVVNL	Ajmer Vidyut Vitran Nigam Limited
BESCOM	Bangalore Electricity Supply Company Limited
BEST	Brihmanmumbai Electric Supply Company
BRPL	BSES Rajdhani Power Limited
BYPL	BSES Yamuna Power Limited
CESC	Calcutta Electric Supply Corporation Limited
CHESCOM	Chamundeshwari Electricity Supply Corporation Limited
CPDL	Chandigarh Power Distribution Limited
CSPDCL	Chhattisgarh State Power Distribution Company Ltd.
DGVCL	Dakshin Gujarat Vij Company Limited
DHBVNL	Dakshin Haryana Bijli Vitran Nigam
DNDDDPDCL	DND and DD Power Distribution Corporation Ltd
DVC	Damodar Valley Corporation
DVVNL	Dakshinanchal Vidyut Vitran Nigam Limited
Goa PD	Electricity Department, Government of Goa
GESCOM	Gulbarga Electricity Supply Company Limited
HESCOM	Hubli Electricity Supply Company Limited
HPSEBL	Himachal Pradesh State Electricity Board Limited
IPCL	India Power Corporation Limited
JBVNL	Jharkhand Bijli Vitran Nigam Limited
JdVVNL	Jodhpur Vidyut vitran Nigam Limited
JPDCL	Jammu Power Distribution Corporation Ltd
JVVNL	Jaipur Vidyut Vitran Nigam Limited
KESCo	Kanpur Electricity Supply Company
KPDCL	Kashmir Power Distribution Corporation Ltd
KSEBL	Kerala State Electricity Board Limited
LED	Electricity Department, UT of Lakshadweep
Ladakh PDD	Ladakh Power Development Department
MePDCL	Meghalaya Energy Corporation Limited

Acronyms	Full Form
MESCOM	Mangalore Electricity Supply Company Limited
MGVCL	Madhya Gujarat Vij Company Limited
MPED	Power & Electricity Department, Government of Mizoram
MPMaKVVCL	Madhya Pradesh Madhya Kshetra Vidyut Vitran
MPPaKVVCL	MP Poorv Kshetra Vidyut Vitran Company Limited
MPPoKVVCL	MP Paschim Kshetra Vidyut Vitran Company Limited
MSEDCL	Maharashtra State Electricity Distribution Co. Ltd.
MSPDCL	Manipur State Power Distribution Company Ltd
MVVNL	Madhyanchal Vidyut Vitran Nigam Limited
NBPDCL	North Bihar Power Distribution Company Limited
NDMC	New Delhi Municipal Council
NPCL	Noida Power Company Limited
Nagaland PD	Department of Power, Nagaland
Puducherry ED	Electricity Department, UT of Puducherry
PGVCL	Paschim Gujarat Vij Company Limited
PSPCL	Punjab State Power Corporation Limited
PVVNL	Paschimanchal Vidyut Vitran Nigam Limited
PuVVNL	Purvanchal Vidyut Vitran Nigam Ltd.
SBPDCL	South Bihar Power Distribution Company Limited
Sikkim PD	Sikkim Power Development Corporation Limited
TCED	Thrissur Corporation Electricity Department
TNPDCL	Tamil Nadu Power Distribution Corporation Limited
TPCL	Tata Power Company, Ltd. (India)
TPCODL	Tata Power Central Odisha Distribution Limited
TPDDL	Tata Power Delhi Distribution Limited
TPL	Torrent Power Limited
TPNODL	Tata Power Northern Odisha Distribution Limited
TPSODL	Tata Power Southern Odisha Distribution Limited
TPWODL	Tata Power Western Odisha Distribution Limited
TSECL	Tripura State Electricity Corporation Limited
TGNPDCL	Northern Power Distribution Company of Telangana Ltd
TGSPDCL	Southern Power Distribution Company of Telangana Ltd
UGVCL	Uttar Gujarat Vij Company Limited
UHBVNL	Uttar Haryana Bijli Vitran Nigam
UPCL	Uttarakhand Power Corporation Limited
WBSEDCL	West Bengal State Electricity Distribution Company Limited

REC Limited आरईसी लिमिटेड

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