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MINISTRY OF
POWER
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CONSUMER SERVICE RATING OF DISCOMS (CSRD)

REPORT FY 2023-24

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CONSUMER SERVICE RATING OF DISCOMS (CSRD)

FY 2023-24

adani Electricity	Electricity Department A&N Administration	సదా మీసేవలో...		Assam Power Distribution Company Limited
Eastern power	Southern Power AP	Ajmer Vidyut Vitran Nigam Limited	BESCOM	BEST
BSES BSES Rajdhani Power Limited	BSES BSES Yamuna Power Limited	CHANDIGARH ADMINISTRATION	C.E.S.C, MYSORE	CSPDCL
DGVCL	DHBVN		GESCOM	ELECTRICITY DEPARTMENT Government of GOA
HESCOM		JBVNL JHARKHAND BIJLI VITRAN NIGAM LIMITED	JODHPUR VIDYUT VITRAN NIGAM LIMITED	JAMMU POWER DISTRIBUTION CORP. LTD. JPDCL
JVVNL	केस्को	KPDCL	KSEB	Department of Electricity Lakshadweep, Powerlak
LPDD	Me PDCL	MESCOM	MGVCL	Power & Electricity Department Government of Mizoram


प्रकाश एवं विकास

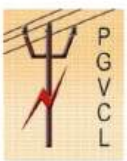

MAHAVITARAN
Maharashtra State Electricity Distribution Co. Ltd.


MSPDCL


UNITY
GOVERNMENT OF NAGALAND


NB


NPCL
NOIDA POWER COMPANY LIMITED


PGVCL


PSPCL


Electricity Department


SB
Illuminating Lives


ENERGY & POWER DEPARTMENT
GOVERNMENT OF SIKKIM


TCED


ND


TGSPDCL
SOUTHERN POWER


TNPDCL


TATA
TATA POWER
Lighting up Lives!


TPCODL
TP CENTRAL ODISHA DISTRIBUTION LIMITED


TATA POWER-DDL


TPNODL


TPSODL
TP SOUTHERN ODISHA DISTRIBUTION LIMITED

TPWODL
TP WESTERN ODISHA DISTRIBUTION LIMITED


TRIPURA STATE ELECTRICITY CORPORATION LIMITED


UGVCL


UHBVN


उत्तराखंड पावर
कारपोरेशन लिमिटेड


WBSEDCL

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 power sector has undergone a remarkable transformation in recent years. Over the last 10 years, significant strides have been made in enhancing power generation and transmission capacity, expanding access to electricity, promoting renewable energy, and implementing innovative policies. By 2047, India's power demand is anticipated to reach ~708 GW, driven by incremental demand from consumers across the spectrum. Meeting this demand requires a transformative overhaul of our systems and processes and accordingly, the emphasis now is on comprehensive and long-term structural enhancements for creating a reliable, affordable, and sustainable energy future for every citizen.

The power distribution sector has also come a long way with the successful implementation of infrastructure and reform-oriented schemes. Over the years, Ministry of Power has undertaken various measures to supplement the efforts of State Governments to improve the power distribution system through schemes like IPDS, DDUGJY, UDAY, SAUBHAGYA, RDSS etc. under these schemes, critical investments have been made in system strengthening works, grid modernization, infrastructure expansion, feeder separation and technology improvements including installation of prepaid smart metering etc. These initiatives have strengthened the backbone of our power infrastructure and also paved the way for a consumer-centric approach, ensuring that the needs and expectations of the consumers remain at the forefront of our agenda.

A major milestone in this journey was the notification of the Rights of Consumers Rules in 2020, which empowered consumers by setting clear service standards for DISCOMs. These rules protect consumer interests, increase transparency, and enhance accountability within the sector. The adoption of cutting-edge technology has also played an important role in improvement of consumer services. Use of advanced SCADA systems, smart meters, and advanced analytics, have enabled DISCOMs to deliver more efficient, reliable, and consumer-friendly services. These technological advancements not only optimize operational efficiencies but also provide consumers with greater control over their energy usage, contributing to a more sustainable and informed society.

As we look towards the future, our commitment to innovation, consumer empowerment, and service excellence remains unwavering. We will continue to explore and implement policies that prioritize consumer satisfaction and elevate the standards of the power distribution sector.

I am pleased to release the Consumer Service Rating of DISCOMs (CSRD) report for FY 2023-24. The CSRD report is not just an evaluation of past performance but a guiding beacon for our future endeavors. By providing actionable insights and fostering healthy competition, the CSRD report strengthens the foundation of a consumer-driven, transparent, and efficient power distribution system. Thereby supporting national growth and prosperity.

Manohar Lal

Shram Shakti Bhawan, New Delhi-110 001 Phone : +91-11-23717474, 23710411, Fax : +91-11-23710065

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

सत्यमेव जयते

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

The power sector is at the heart of our vision to transform India into a global economic superpower. As one of the largest and most diversified power sectors in the world, India is leading the charge towards a sustainable energy future. The reforms initiated by the Government have reshaped the power sector landscape in the country. India is firmly advancing towards a sustainable energy future with initiatives like the National Green Hydrogen Mission, PM-KUSUM, and PM Surya Ghar:Muft Bijli Yojana etc. The Government is resolute in its goal of achieving 500 GW of non-fossil fuel power by 2030, supported by enhancing energy storage solutions and integrating more renewable energy into the grid.Over the past 3 years, Power demand has been growing at a compounded annual growth rate (CAGR) of 5.94% and we are successfully meeting this demand, ensuring that growth is never hindered by energy constraints. Today, India's power sector is attracting significant investment across all segments viz. generation, transmission and distribution.

To further strengthen this progress, the Ministry of Power, Government of India has launched the Revamped Distribution Sector Scheme (RDSS), a reform-based and results-linked initiative aimed at bringing significant improvements in the quality, reliability, and affordability of power supply to consumers through a financially sustainable and operationally efficient distribution sector.

As we move forward, prioritizing consumer services and enhancingease of living will be essential to ensure that the benefits of a strengthened power sector translate into an improved quality of life and greater convenience for all citizens.To achieve this, it is crucial to develop new practices, skills, regulatory frameworks, and market structures to manage the evolving energy landscape. Furthermore, recognition of Electricity as not just a commodity, but a catalyst for growth, development, and a sustainable future shall pave way for greater reforms and innovations. The implementation of Rights of Consumers Rules is vital to ensure reliable and efficient electricity services

Consumer service ratings is an initiative in this direction, which makes DISCOMs more accountable for the quality of service they provide. Publicly available ratings encourage companies to maintain high standards to avoid negative feedback and make informed decisions.

The first three editions of the CSRD Report, published for FY 2021, FY 2022, and FY 2023, highlighted the performance of DISCOMs on key service parameters from the consumer perspective. This has enabled them to self-evaluate their performance and compare themselves with their peers at the national level.

I welcome the fourth edition of the report and I am confident that this report will provide DISCOMs with comprehensive insights into practices of other utilities, helping them become more financially robust, consumer-centric, and operationally efficient.

(SHRIPAD NAIK)

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पंकज अग्रवाल, भा.प्र.से.
सचिव
Pankaj Agarwal, I.A.S.
Secretary

सत्यमेव जयते

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MESSAGE

An operationally efficient and financially robust power sector is essential for our nation's economic growth. Distribution System is the most important link in the entire power sector value chain as its performance directly affects sustainability of the entire sector. Initiatives like the Financial Restructuring under Ujjwal DISCOM Assurance Yojana (UDAY), Liquidity Infusion Scheme, and the ongoing Revamped Distribution Sector Scheme (RDSS) are all designed to enhance the financial health of DISCOMs which in turn would help to improve their operational performance so as to provide reliable services to consumers. Schemes such as Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), the Integrated Power Development Scheme (IPDS), the Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA), and RDSS have strengthened the distribution system and led to universal access to electricity in the country. Under RDSS, smart meters are being installed in mission mode, alongside system modernization efforts under the Loss Reduction Program.

To further enhance DISCOMs performance, the Government has introduced policies to improve power procurement planning, and consumer services. For example, the Resource Adequacy framework ensures that DISCOMs tie-up sufficient capacity to meet their growing power demand. The scheme for Additional Borrowing space of 0.5% of GSDP based on the performance of DISCOMs incentivizes States to take corrective measures. The Electricity (Rights of Consumers) Rules, 2020, have set clear service standards for DISCOMs, empowering consumers by ensuring accountability and offering compensation for service lapses. DISCOMs are now more sensitive towards improving consumer oriented services. Reduction in timelines for New Connection, Simplification of Connection Charges, Providing Green Energy Open Access, Establishment of multi-tier Consumer Grievance Redressal Forum (CGRF), Time of Day (TOD) tariff etc are few of the measures under the rules for enhancing ease of living for the Consumers.

The CSRD Report, an annual grading exercise of DISCOMs launched in 2021, provides a rigorous evaluation of DISCOMs performance based on four key parameters viz. Operational Reliability, Connection and Other Services, Metering, Billing and Collection, and Fault Rectification and Grievance Redressal. This Report enables DISCOMs to assess their performance, compare with peers and identify areas for improvement. The insights it provides are instrumental in driving better service delivery and higher consumer satisfaction.

I am pleased to learn that the fourth edition of the CSRD report for FY 2023-24is being launched by REC Limited. I believe this report will continue to facilitate knowledge sharing and bring forth the actionable insights for key power sector stakeholders, including policymakers and regulators.

I commend the combined efforts of all stakeholders including the DISCOMs, and REC Limited for once again ensuring the success of this exercise.

(PANKAJ AGARWAL)

स्वच्छ भारत
एक कदम स्वच्छता की ओर

आज़ादी का अमृत महोत्सव

विवेक कुमार देवांगन, भा.प्र.से.
अध्यक्ष एवं प्रबंध निदेशक
Vivek Kumar Dewangan, IAS
Chairman & Managing Director

सत्यमेव जयते

आर ई सी
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MESSAGE

Access to cost effective and reliable power supply is the biggest catalyst for inclusive growth. Reliable and affordable power supply is essential for the economic development, energy security, improving the health & quality of life and also enhancing the environment for ease of doing business in the country. There is the need for a cutting-edge, smart, and resilient power distribution system capable of managing dynamic loading in system, ensuring a reliable power supply for consumers and a resilient power system.

The Ministry of Power, Government of India, has implemented various reform measures to ensure the power distribution sector's viability and sustainability. One such initiative is the Revamped Distribution Sector Scheme (RDSS), introduced in 2021, which aims to enhance the quality and reliability of power supply to consumers. As power demand evolves and becomes more dynamic, consumer service expectations are set to rise, prompting DISCOMs to elevate their service standards. Therefore, it is crucial to have a monitoring system in place to continuously track DISCOMs' performance on key service parameters. REC has always been at the forefront of these challenges in the power sector and acting as the trusted arms of the Ministry of Power for the implementation of these reforms & initiatives.

The Consumer Service Rating of DISCOMs (CSRD) report evaluates DISCOMs based on four key criteria; Operational Reliability, Connections and Other Services, Metering, Billing and Collection efficiencies, and Fault Rectification and Grievance Redressal Mechanism. It offers valuable insights into DISCOMs' performance across these areas, fostering healthy competition and encouraging them to enhance their service standards and adopt a more consumer-centric approach. Additionally, it provides essential insights for policymakers, regulators, investors, and other industry stakeholders. More importantly, a key learning from the CSRD report has been that DISCOMs' need to continuously embrace innovation to improve its services and efficiency.

Till date CSRD report for 3 Financial years have been released, with last being for FY 2022-23 and REC is delighted to present the fourth edition of the annual CSRD Report for FY 2023-24, crafted under the esteemed guidance of the Ministry of Power. This report will provide valuable insights into the changes adopted by the DISCOMs to encourage innovation, upgrade infrastructure, and implement efficient power distribution strategies to enhance consumer services and boost consumer satisfaction.

I express my sincere appreciation to all the stakeholders for their guidance and support throughout the process of successfully publishing this report. Thank you for your trust and continued partnership.

(Vivek Kumar Dewangan)

Rahul Dwivedi, IAS
Executive Director

सत्यमेव जयते

आर ई सी REC
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MESSAGE

Since its 2021 introduction, the CSRD report has assessed the performance of DISCOMs on key metrics like power supply reliability, consumer complaint responsiveness, billing services, and digital interfaces. Providing a transparent and objective evaluation of DISCOMs, including performance benchmarking, thereby guiding them towards enhancing the credibility. By offering a thorough evaluation, the report highlights the accomplishments of leading DISCOMs while also pinpointing areas that require improvement. This year 66 DISCOMs participated, the highest ever, and were evaluated on 23 pre-defined sub-parameters under 4 major parameters category i.e. Operational Reliability, Connection and Other Services, Metering, Billing & Collection Efficiencies, and Fault Rectification & Grievances Redressal mechanism.

In the last edition, we witnessed significant strides made by many DISCOMs in enhancing their service delivery and operational efficiencies. These advancements are the result of relentless efforts and a strong commitment to consumer-centric practices. The insights provided in this report are intended to guide and inspire all DISCOMs to strive for higher levels of service quality and consumer satisfaction, with a goal of ensuring that every consumer enjoys reliable, efficient, and high-quality power supply.

As we release the annual CSRD report for FY 2023-24, I want to express my heartfelt gratitude to Shri Manohar Lal, the Hon'ble Minister of Power and Housing & Urban Affairs, for his visionary leadership and for entrusting REC Limited with the publication of this report. We also sincerely appreciate the ongoing support and guidance from Shri Pankaj Agarwal, IAS (Secretary Power, Govt. of India), Shri Shashank Misra, IAS (Joint Secretary, Distribution), and other officials of the Ministry of Power.

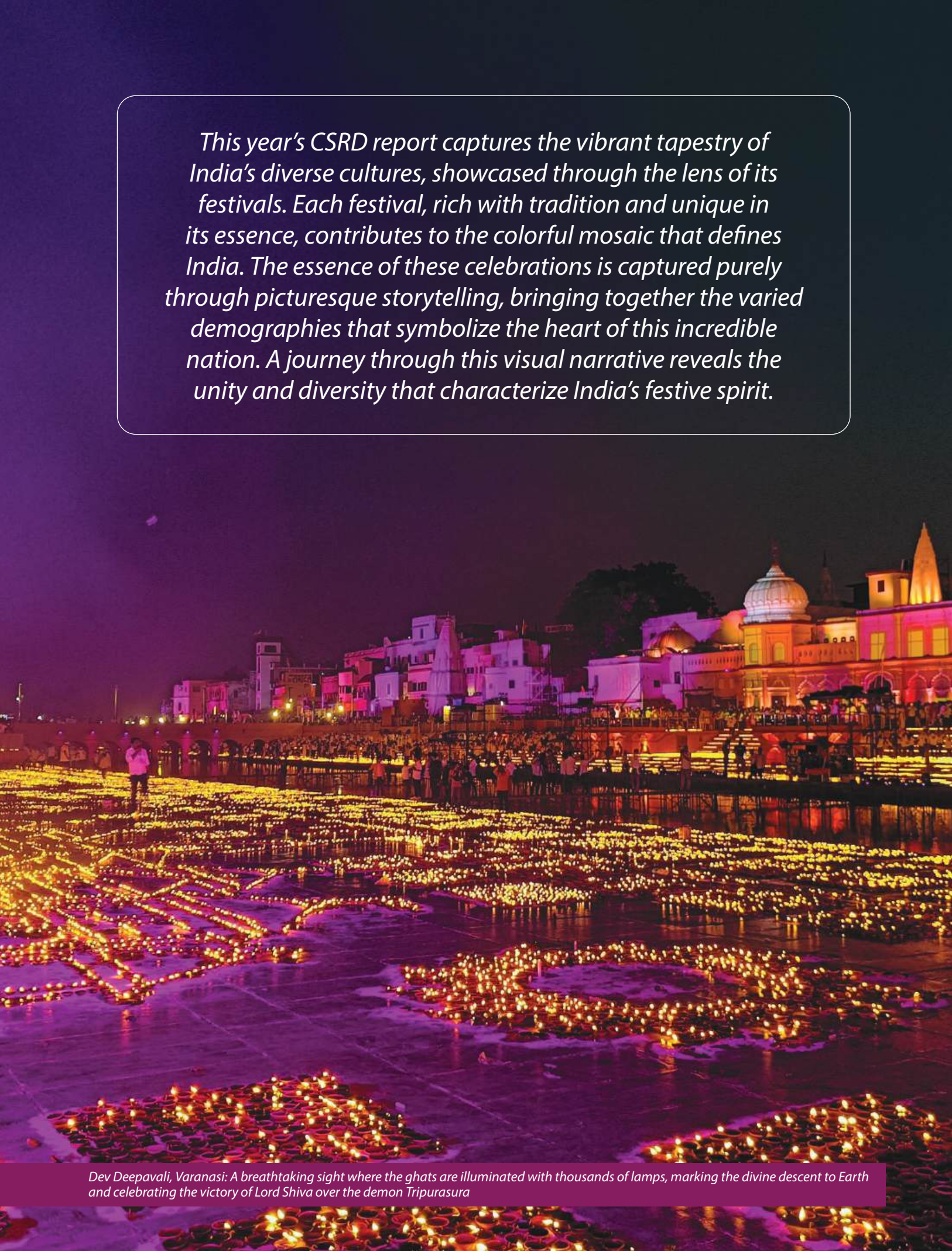
I would like to express my sincere gratitude to Shri Vivek Kumar Dewangan, IAS (Chairman and Managing Director, REC Limited) for his unwavering leadership, strategic vision, and esteemed guidance throughout the CSRD initiative. His insights have been pivotal in uncovering significant findings in the report, which will help DISCOMs improve essential services.

The report also highlights noteworthy best practices from various distribution utilities, not only in India but also abroad, serving as guidance for other DISCOMs. I am confident that, similar to the previous three editions, the current edition will encourage DISCOMs to assess their weaknesses and enhance their service parameters.

As we unveil the fourth edition of the CSRD Report for FY 2023-24, I would like to take a moment to express my heartfelt appreciation for the tireless efforts of the entire team that made this comprehensive report possible. I encourage our stakeholders, partners, and readers to explore this report and share your valuable feedback.

(Rahul Dwivedi)

This year's CSRD report captures the vibrant tapestry of India's diverse cultures, showcased through the lens of its festivals. Each festival, rich with tradition and unique in its essence, contributes to the colorful mosaic that defines India. The essence of these celebrations is captured purely through picturesque storytelling, bringing together the varied demographies that symbolize the heart of this incredible nation. A journey through this visual narrative reveals the unity and diversity that characterize India's festive spirit.



Dev Deepavali, Varanasi: A breathtaking sight where the ghats are illuminated with thousands of lamps, marking the divine descent to Earth and celebrating the victory of Lord Shiva over the demon Tripurasura

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EXECUTIVE SUMMARY

Power infrastructure and its associated ecosystem vary globally, reflecting local conditions, economic frameworks, and socio-economic priorities. Thus, a comprehensive approach is crucial for developing an effective power system that delivers reliable electricity services to end consumers. With a customer base of approximately 33+Cr and extensive service coverage, the Indian power system ranks among the largest and most complex in the world. It currently functions under the unified framework of 'One Nation, One Grid, One Frequency,' following the establishment of the national grid.

Globally, digitalization is emerging as a significant disruptor in the utility sector, increasingly permeating the distribution domain to boost operational efficiency and improve consumer experiences. In India, power distribution utilities are clearly embracing digital innovations, such as digital payment gateways, smart grids, Advanced Metering Infrastructure (AMI), and web/mobile applications, all of which contribute to elevated operational service levels. Moving forward, the emphasis is on achieving self-sustainability and financial viability within the distribution sector, while maintaining disciplined adherence to the mandatory service standards provided to consumers.

Over the years, the Government of India (GoI) has launched dedicated programs aimed at enhancing the power distribution sector. These initiatives focus on strengthening distribution infrastructure, extending electrical access to households and villages, and improving the operational and financial health of Distribution Companies (DISCOMs). Notable schemes such

as Saubhagya, the Integrated Power Development Scheme (IPDS), the Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), Ujwal DISCOM Assurance Yojana (UDAY), and the Revamped Distribution Sector Scheme (RDSS) have significantly transformed the operations of DISCOMs and Power Departments (PDs), improving the delivery of services to end consumers.

The introduction of the Electricity (Rights of Consumers) Rules, 2020, along with subsequent amendments, strengthens the rights of electricity consumers and outlines the service delivery responsibilities of distribution utilities. These rules focus on detailed service parameters, including the provision of new connections, consumer metering, billing processes, digital payment options, ensuring a reliable power supply, supporting prosumers, and handling grievances.

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

These rules laid the groundwork for the launch of the Consumer Service Rating of DISCOMs (CSRD) Report in 2021. This report assesses the consumer service performance of DISCOMs by defining the minimum standards and consumer expectations, such as timely and accurate metering and billing, prompt and effective grievance resolution, and fair & transparent tariff determination.

The Consumer Service Rating of DISCOMs (CSRD) report aims to develop a comprehensive strategy to enhance consumer satisfaction and promote cross-disciplinary learning. It delves into various consumer-focused services, using the service standards outlined in the Electricity Rules as a foundation for evaluating DISCOMs across key service areas. The report also monitors and assesses the compliance and implementation of these rules by the DISCOMs.

Building on the insights gained from the previous three editions of the CSRD report (FY2020-21, FY2021-22, and FY2022-23), the fourth edition—CSRD 2023-24—is now being released. The grading exercise follows the same structural framework as last year, utilizing the strong and rigorous methodology implemented in previous editions. This report involves meticulous data collection through a centralized online portal, enabling a detailed analysis of various operational dimensions across four broad parameters:

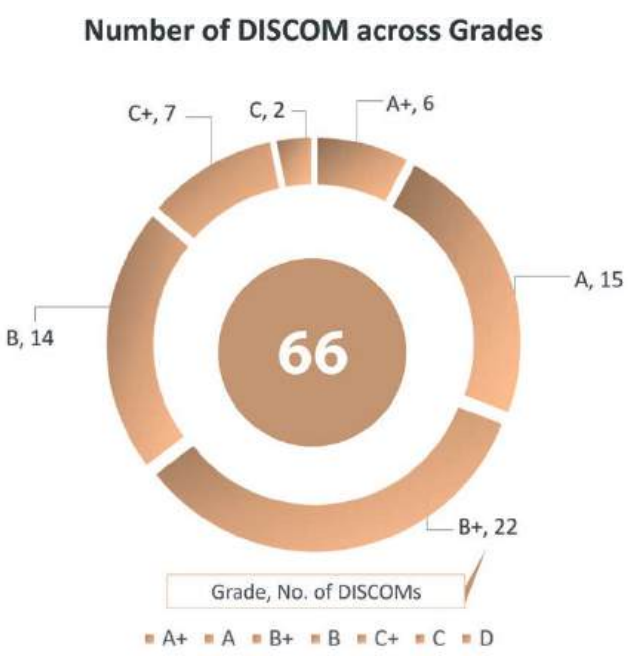
Operational Reliability	**Connections and other Services**	**Metering, Billing and Collection**	**Fault Rectification and Grievance Redressal**

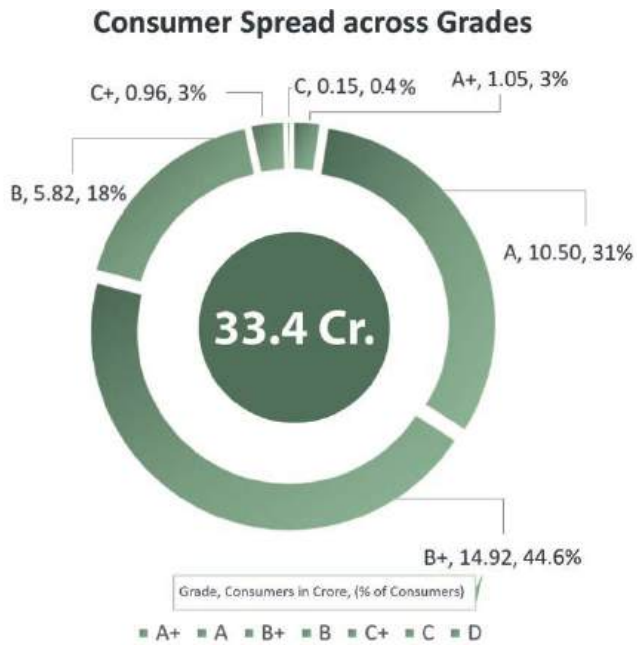
In the CSRD-2024 evaluation, 73 DISCOMs were initially contacted. However, 7 DISCOMs were excluded from the assessment due to either non responsiveness or insufficient data submission. Consequently, 66 DISCOMs were evaluated, comprising 10 private and 56 state-owned entities. Each DISCOM received a grade based on scores derived from a predefined methodology. The DISCOMs were categorized into urban and rural segments according to their consumer demographics. Following the 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—were designated as "Special Category States (SCS)," which is noted in the report.

To capture a comprehensive view of the DISCOMs' performance, circle-wise data has been collected from them for most parameters, ensuring a high level of data granularity. The grading methodology comprises four key parameters, broken down into 23 sub-parameter metrics, which together provide a holistic assessment of the DISCOMs' performance across various facets. Based on the scores derived from the evaluation of submitted data, DISCOMs are assigned one of the following grades: A+, A, B+, B, C+, C, and D. These seven distinct grades are designed to foster a sense of healthy competition among the DISCOMs and motivate them to enhance their service levels.

OUT OF THE 66 DISCOMS BEING RATED:

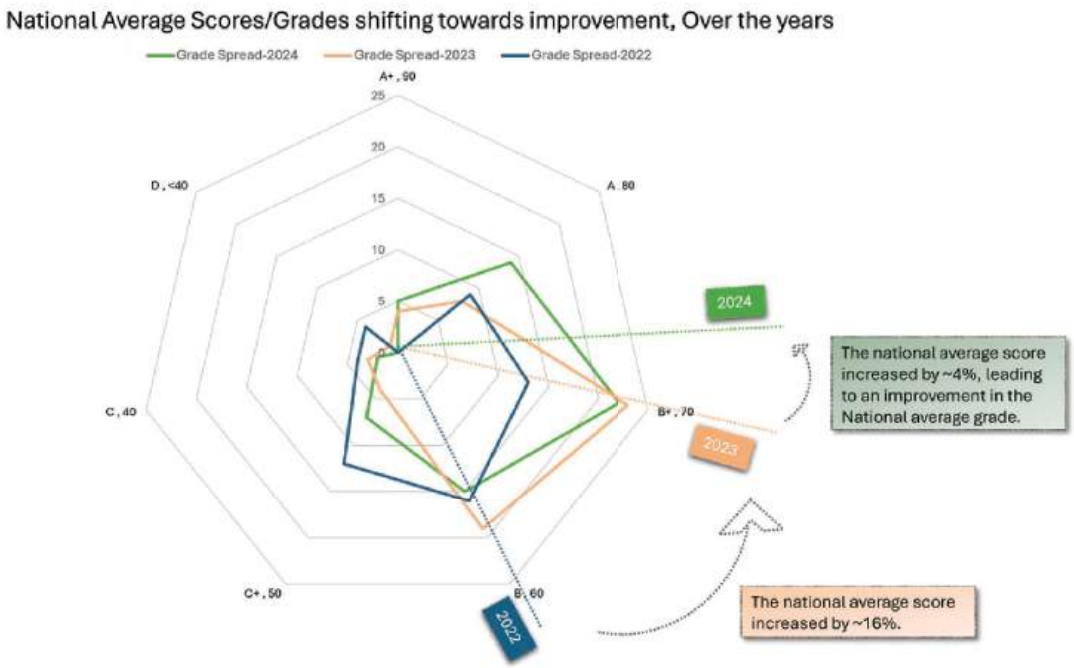
6 DISCOMs have secured the highest grade i.e. A+.	No DISCOM has secured the lowest grade i.e., D	22 DISCOMs have secured the average grade i.e. "B+"



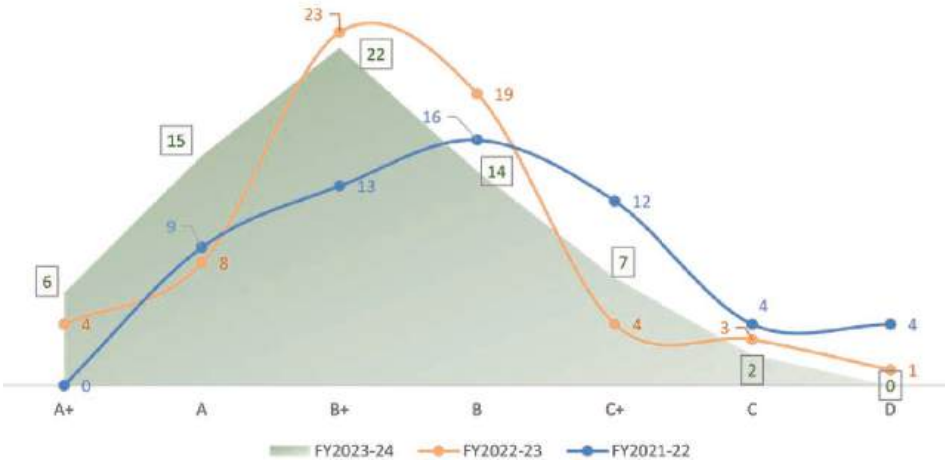


IMPROVEMENT IN PERFORMANCE OVER THE YEARS

The performance of DISCOMs has improved, as demonstrated by more DISCOMs receiving higher grades and more consumers experiencing better services. This trend indicates a positive outlook at the national level. Furthermore, there has been a decrease in the number of DISCOMs and consumers falling within the lower grades ("C" and "D"), highlighting progress at the lower end of the grade scale. The following graphic provides a summary of these improvements for FY 2023-24



Positive Trends in DISCOM Performance Grades (A+ to D) over 3 fiscal years: The distribution of DISCOMs across seven grades (A+ to D) over three fiscal years shows a clear improvement in performance as grades move from D to A+. Notably, in FY2023-24, the number of DISCOMs in the top grades (A+/A/B+) has doubled compared to FY2021-22. Meanwhile, the proportion of DISCOMs in the lower grades (below B+) has been steadily declining, resulting in FY2023-24 having the most desirable distribution compared to previous years. However, there remains significant room for improvement, with further efforts needed to push more DISCOMs into the top grades and create a distribution that trends downwards, peaking at A+.



Grades obtained by DISCOMs and Power Departments for FY2023-24

The finalized data covered 66 DISCOMs, collectively serving approximately 33.4 crore consumers, and these DISCOMs were included in the grading assessment. While several DISCOMs achieved top grades, DISCOMs in lower grade need improvement in specific areas. The table below shows the grades obtained by DISCOMs corresponding to 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 FY23
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+	B+	A+	A+	A+	↔
7	Andhra Pradesh	APCPDCL	A+	B	B+	A+	A	↔
8	Andhra Pradesh	APEPDCL	A+	B+	B+	A	A	↔
9	Andhra Pradesh	APSPDCL	A+	B+	B+	A	A	↔
10	Assam	APDCL	A+	C+	B+	B	A	↑
11	Bihar	NBPDCL	A+	B	B+	A	A	↑
12	Gujarat	DGVCL	A+	A	C+	A+	A	↑
13	Madhya Pradesh	MPPaKVVCL	A+	A	B	A+	A	↑
14	Manipur	MSPDCL (SCS)	A+	B+	A	B+	A	↔
15	Odisha	TPCODL	A+	B	B	A+	A	↑
16	Odisha	TPNODL	A+	B+	B+	A	A	↑
17	Tamil Nadu	TNPDCL	A+	A	B+	A+	A	↔
18	Telangana	TGNPDCL	A+	B+	B+	A+	A	↔
19	Telangana	TGSPDCL	A+	B+	B+	A+	A	↔
20	Uttar Pradesh	KESCO	A	B+	B+	A+	A	↑
21	Uttarakhand	UPCL (SCS)	A	B+	B	A+	A	↑
22	Bihar	SBPDCL	A	C+	B+	A+	B+	↔
23	Goa	Goa PD	A+	B+	C	A	B+	↔
24	Gujarat	MGVCL	A+	A	C	B+	B+	↔
25	Gujarat	PGVCL	A+	B	C	A+	B+	↑
26	Gujarat	UGVCL	A+	B+	C	A+	B+	↔
27	Haryana	DHBVNL	B+	B+	B+	A+	B+	↔
28	Haryana	UHBVNL	B+	B+	B+	A+	B+	↔
29	Karnataka	BESCOM	A+	A+	C+	A	B+	↔
30	Karnataka	CESCOM	A	B+	C+	A+	B+	↔
31	Karnataka	GESCOM	A+	A+	D	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 FY23
32	Kerala	KSEBL	A+	B+	C	A	B+	↔
33	Madhya Pradesh	MPMaKVVCL	A	A	B	B	B+	↔
34	Madhya Pradesh	MPPoKVVCL	A	A	C+	A+	B+	↔
35	Maharashtra	BEST	A+	A	C	D	B+	↑
36	Maharashtra	MSEDCL	A+	A	C	A	B+	↑
37	Meghalaya	MePDCL (SCS)	A	B+	B	B+	B+	*
38	Odisha	TPSODL	A+	B+	C+	C	B+	↑
39	Odisha	TPWODL	A+	A	C+	A+	B+	↔
40	Punjab	PSPCL	A+	C+	B	B+	B+	↔
41	Tripura	TSECL (SCS)	A+	B	C+	B+	B+	↑
42	Uttar Pradesh	DVVNL	B	A	B	A+	B+	↑
43	West Bengal	WBSEDCL	A+	A	C+	A	B+	↔
44	Chandigarh	CED	A	B+	C	D	B	↔
45	Chhattisgarh	CSPDCL	A+	B+	D	A	B	↔
46	Karnataka	HESCOM	A	D	C+	B+	B	↔
47	Karnataka	MESCOM	B+	A+	C	A	B	↔
48	Kerala	TCED	A+	C+	C	C+	B	*
49	Ladakh	Ladakh PDD (SCS)	A+	B	D	C+	B	↔
50	Lakshadweep	Lakshadweep ED (SCS)	A	C+	C	D	B	*
51	Puducherry	PED	A+	B+	D	D	B	↔
52	Rajasthan	AVVNL	B+	B	C	A+	B	↓
53	Rajasthan	JdVVNL	A+	D	C	A+	B	↔
54	Rajasthan	JVVNL	B	C+	C+	B	B	↔
55	Uttar Pradesh	MVVNL	C+	B+	C+	A+	B	↔
56	Uttar Pradesh	PuVVNL	B	B+	C	C+	B	↔
57	Uttar Pradesh	PVVNL	C+	B+	B	A+	B	↑
58	Andaman & Nicobar Islands	A&N PD (SCS)	B	B	D	B	C+	↓
59	Arunachal Pradesh	Arunachal PD (SCS)	B	B+	D	C+	C+	↑
60	Himachal Pradesh	HPSEBL	C+	B+	C	B+	C+	↔
61	Jammu & Kashmir	KPDCL (SCS)	B	B	C	B+	C+	↑
62	Jharkhand	JBVNL	B+	D	D	C	C+	↑
63	Mizoram	Mizoram PD (SCS)	A	B	C	D	C+	↔
64	Sikkim	Sikkim PD (SCS)	B	C+	C+	D	C+	↔
65	Jammu & Kashmir	JPDCL (SCS)	C	C+	D	B+	C	↑
66	Nagaland	Nagaland PD (SCS)	B	C	D	D	C	*

Excluded DISCOMs

S. No.	States / UTs	DISCOM	Remarks
1	Dadra & Nagar Haveli and Daman & Diu	DNHDDPDCL	Non Participation
2	Gujarat	TPL Dahej	Non Participation
3	Gujarat	TPL Ahmedabad	Non Participation
4	Gujarat	TPL Surat	Non Participation
5	West Bengal	CESC	Non Participation
6	West Bengal	IPCL	Non Participation
7	West Bengal	DVC	Data Insufficiency

Note:
1. Serial no. across the tables DO NOT represent any ranking whatsoever amongst the graded DISCOMs
2. SCS – Special Category State
↑ Grade higher than CSRD FY 2022-23
↔ Same grade as CSRD FY 2022-23
↓ Lower grade than CSRD FY 2022-23
* DISCOM/State did not participate in CSRD FY 2022-23

Maha Shivratri: A revered Hindu festival dedicated to Lord Shiva, marked by fasting, night-long vigils, and prayers, symbolizing the triumph over darkness and ignorance. It holds deep spiritual significance as devotees seek Lord Shiva's blessings for inner transformation, spiritual growth, and enlightenment.

Mega Bihu Performance: Over 11,000 dancers and drummers from across Assam gathered in Guwahati on April 2023, setting a Guinness World Record. This historic event showcased the vibrant essence of Bihu, uniting performers in a dazzling display of traditional dance."

1

NEED FOR A COMPREHENSIVE RATING EXERCISE

The Ministry of Power, Government of India, has introduced numerous reforms and policies aimed at improving electricity services. The Consumer Services Rating of DISCOMs (CSRD) complements these efforts by providing a transparent and objective assessment of how well distribution companies are implementing these reforms, thereby driving continuous improvement and ensuring that the benefits of reforms reach the end consumers. In essence, consumer services ratings are an essential tool in the ongoing endeavor to enhance the quality and reliability of electricity services in India.

The need for a consumer services rating of power distribution companies in India, such as the CSRD exercise, also stems from multiple factors that collectively underscore the necessity of enhancing consumer satisfaction and accountability in the power sector.

Electricity (Rights of Consumers) Rules, 2020, and amendments thereof, have been pivotal in establishing the rights and expectations of electricity consumers in India, by setting minimum standards of service for supply of electricity. These rules aim to ensure reliable and quality electricity supply, timely grievance redressal, and transparency in billing and metering. By setting clear benchmarks for service delivery, they nudge the DISCOMs to establish a robust internal mechanism, to evaluate and enforce compliance, thereby safeguarding consumer interests. Consumer expectations from DISCOMs have escalated significantly. With urbanization and rising living standards, consumers demand not only uninterrupted power supply but also enhanced service quality and customer support. A rating system provides a structured approach to assess how well DISCOMs meet these expectations and encourages them to adopt consumer-centric practices.

The rapid technological advancements in the power sector also play a crucial role. Smart grids, digital meters, and advanced data analytics have transformed how power distribution systems operate. These technologies enable more efficient management of electricity supply and demand, reduce losses, and enhance reliability. Consumer services ratings also encourage companies to leverage these technologies to improve service delivery and operational efficiency.

The increasing complexity of power distribution infrastructure, driven by substantial infrastructure additions, poses challenges in maintaining reliable service. As the system becomes more intricate, a rating system can help identify areas of improvement and drive companies to optimize their operations to handle these complexities effectively. Moreover, the power distribution sector is evolving globally, with a shift towards sustainability and integration of renewable energy sources in the distribution system making it dense and complex. India is witnessing a similar trend, with increasing investments in renewable energy and grid modernization. This evolution necessitates a dynamic and comprehensive evaluation framework to ensure that distribution companies are adapting to these changes and contributing to national and global energy goals.

By evaluating distribution companies on parameters related to customer service viz (1) Operational Reliability (OR), (2) Connection & Other Services (CoS), (3) Metering, Billing & Collection (MBC), and (4) Fault Rectification & Grievance Redressal (FRGR) the CSRD encourages a consumer-centric approach and benchmarks companies against best practices, fostering a competitive environment where customer satisfaction is prioritized. The report will enable DISCOMs to assess their performance in comparison to peers by examining micro-level performance parameters and improve over the current level of services to consumers.

These reports have attracted the attention of key stakeholders in the distribution sector, including DISCOMs, regulators, policymakers, and consumers. The insights from previous editions have spurred a positive change, encouraging DISCOMs to enhance their performance and deliver superior services. This years edition too, will be publicly accessible, paving the way for increased accountability in electricity supply across states.

CSRD AT A GLANCE

TASK FORCE CREATION
INDUSTRY EXPERTS INVOLVEMENT

4 KEY PARAMETERS
23 SUB PARAMETERS

7 STEP APPROACH
4 STAGES OF VERIFICATION

COMPREHENSIVE FRAMEWORK

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

22 REGIONAL OFFICES INVOLVED

73 DISCOMs Approached

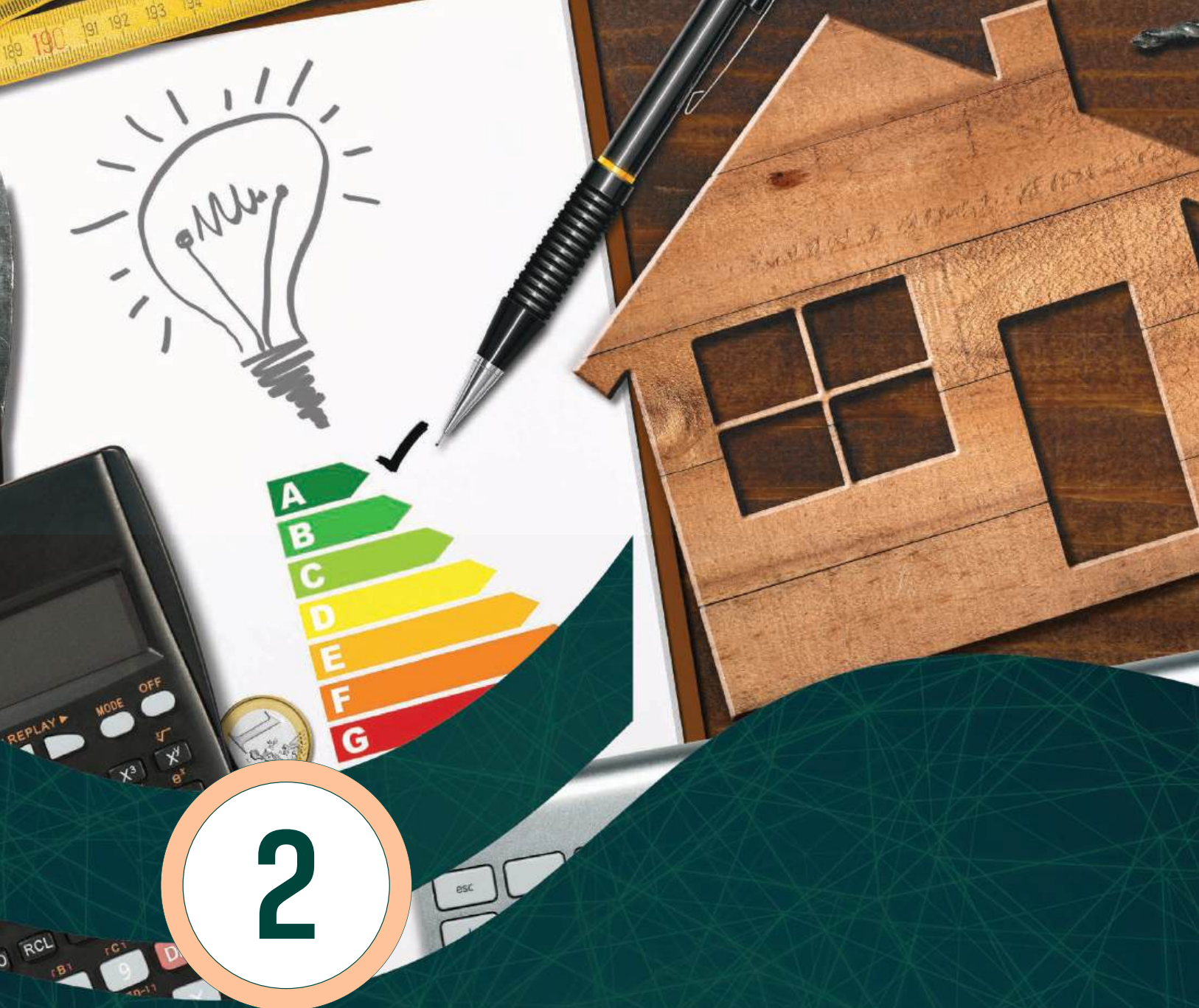
66 DISCOMs Participated

180 Days Exercise

33+ Crore Consumers


Clean

Navratri, Gujarat: Garba, a vibrant dance festival from Gujarat, India, celebrates the divine feminine energy and fosters community spirit during the auspicious Navratri.



2

RATING OF UTILITIES

This chapter gives an overview of how each DISCOM performs on the four key service parameters. The evaluation was carried out using defined methods on the data provided by the DISCOMs, and scores were assigned accordingly. These scores were then translated into grades using a set grading system, resulting in a detailed grade table. The next section explores performance based on sub-parameters, examines performance from an ownership standpoint, discusses the weight assigned to each of the four parameters, and highlights key facts such as the national Maximum, Minimum, and Average values for specific sub-parameters.

2.1 DISCOMS PERFORMANCE – OVERVIEW

Out of the 73 DISCOMs contacted, 6 were excluded due to non-response and 1 due to insufficient data submission. This resulted in 66 DISCOMs being considered for the rating process. As noted earlier, data and information were collected for these 66 DISCOMs, which serve approximately 33.39 crore consumers, and they have been included in the evaluation and rating process.


A+ | 06
Delhi (BRPL, BYPL, TPDDL), Maharashtra (AEML, TPCL), Uttar Pradesh (NPCL)
A | 15
Andhra Pradesh(APCPDCL, APEPDCL,APSPDCL), Assam (APDCL), Bihar (NBPDCL), Gujarat(DGVCL) Madhya Pradesh(MPPaKVVCL), Manipur(MSPDCL), Odisha(TPCODL,TPNODL), Tamil Nadu(TNPDCL), Telangana(TGNPDCL,TGSPDCL) Uttar Pradesh(KESCO), Uttarakhand(UPCL)
B+ | 22
Bihar(SBPDCL), Gujarat (MGVCL,UGVCL,PGVCL), Goa (Goa PD), Haryana (DHBVNL,UHBVNL),Karnataka (BESCOM,CESCOM,GESCOM), Kerala (KSEBL), Madhya Pradesh (MPMKVVCL, MPPoKVVCL), Maharashtra (BEST, MSEDCL), Meghalaya (MePDCL), Odisha (TPSODL, TPWODL), Punjab(PSPCL), Tripura (TSECL), Uttar Pradesh (DVVNL), West Bengal (WBSEDCL)
B | 14
Chandigarh (CED), Chhattisgarh (CSPDCL), Karnataka (HESCOM, MESCOM), Kerala (TCED) Ladakh (Ladakh PDD), Lakshadweep (LED), Puducherry (PED), Rajasthan (AVVNL, JdVVNL, JVVNL) Uttar Pradesh (PVVNL, PuVVNL, MVVNL)
C | 02
J&K (JPDCL), Nagaland (Nagaland PD)
D | 0
None of DISCOM achieved D Grade
C+ | 07
A&N Islands (A&N PD), Arunachal Pradesh (Arunachal PD), Himachal Pradesh (HPSEBL), J&K (KPDCL), Jharkhand (JBVNL), Mizoram (Mizoram PD) Sikkim (Sikkim PD)

- Out of the 66 DISCOMs, 15 are Special Category DISCOMs from 14 states and union territories, while 10 are Urban DISCOMs from 6 states and union territories.
- 6 DISCOMs namely TPCL, AEML, BRPL, BYPL, TPDDL and NPCL scored A+ grade, all of them are Urban DISCOMs except NPCL.
- Maximum concentration of DISCOMs - 51 Nos (77%) is observed across A, B+ and B grade.

National Average Grade : B+

DISCOMs Participating: 66

DISCOMs above National Average: 21

2.1.1 DISCOMS PERFORMANCE – Ownership and Demographic Perspective

Analyzing the performance of DISCOMs from the perspectives of ownership, demographics, and geography is essential, as it helps identify crucial factors such as administrative structure and terrain, which are inherent and can influence their performance. Understanding these elements provides valuable insights into the operational challenges and advantages faced by different DISCOMs.

The table below illustrates the performance grades of 10 private and 56 state-owned DISCOMs. A significant number, 36 DISCOMs, fall within the B+ and B grade categories. Interestingly, none of the private DISCOMs has received a grade lower than B+. Among the state-owned DISCOMs, none has been assigned the lowest grade, D.

DISCOM ownership perspective								
Grades	A+	A	B+	B	C+	C	D	Total
Private DISCOMs	6	2	2	0	0	0	0	10
State Owned DISCOMs	0	13	20	14	7	2	0	56
Total	**6**	**15**	**22**	**14**	**7**	**2**	**0**	**66**

DISCOM demography Perspective								
Grades	A+	A	B+	B	C+	C	D	Total
Urban DISCOMs	5	1	1	3	0	0	0	10
General DISCOMs	1	14	21	11	7	2	0	56
Total	**6**	**15**	**22**	**14**	**7**	**2**	**0**	**66**

2.1.2 Sub-parameters coverage across broad parameters

There are 23 pre-identified sub-parameters across the 4 key 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 consumers	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)

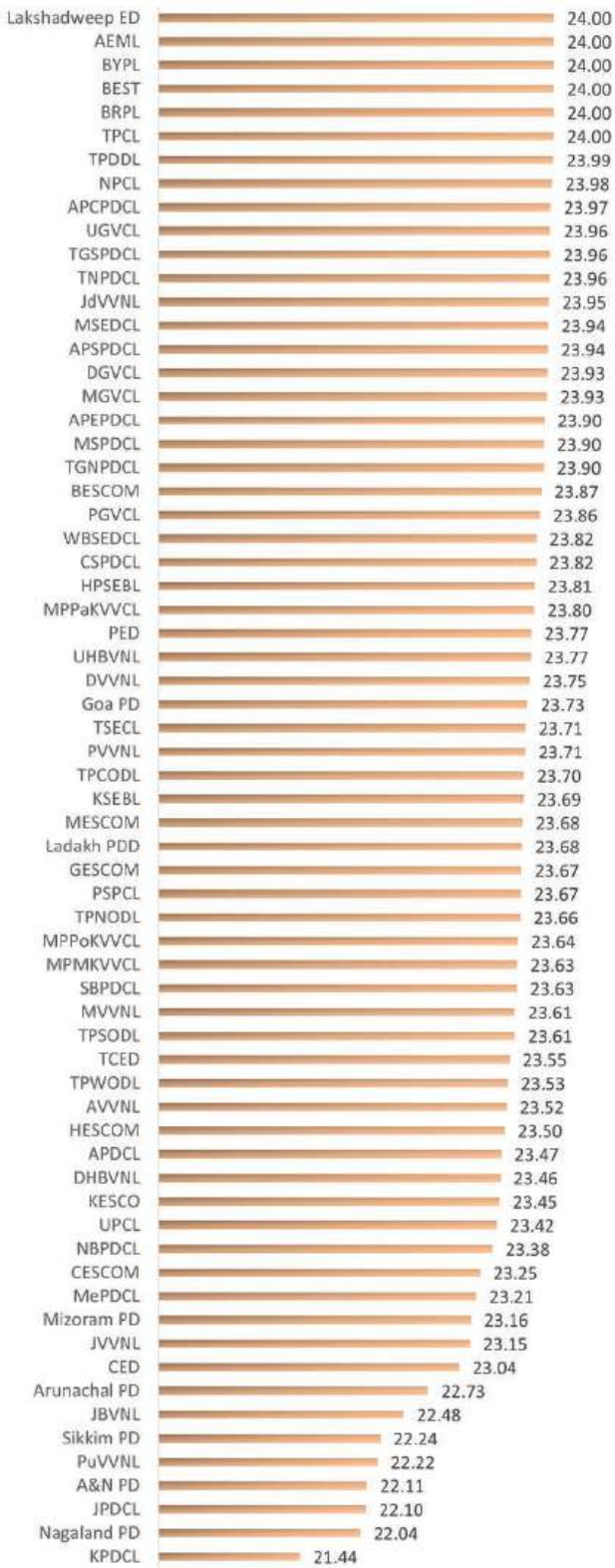
This parameter measures the efficiency of the DISCOMs in delivering continuous power to the end consumers. It may be impacted by multiple factors including inadequate and inefficient Operations and Maintenance (O&M) practices, faulty equipment, improper load management for a prolonged period etc.

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 assess the OR. The data for FY 2023-24 corresponding to each sub-parameter has been collected for analysis.

ANALYSIS OF SUB-PARAMETERS

2.2.1 Hours of Supply (HoS) - Urban



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

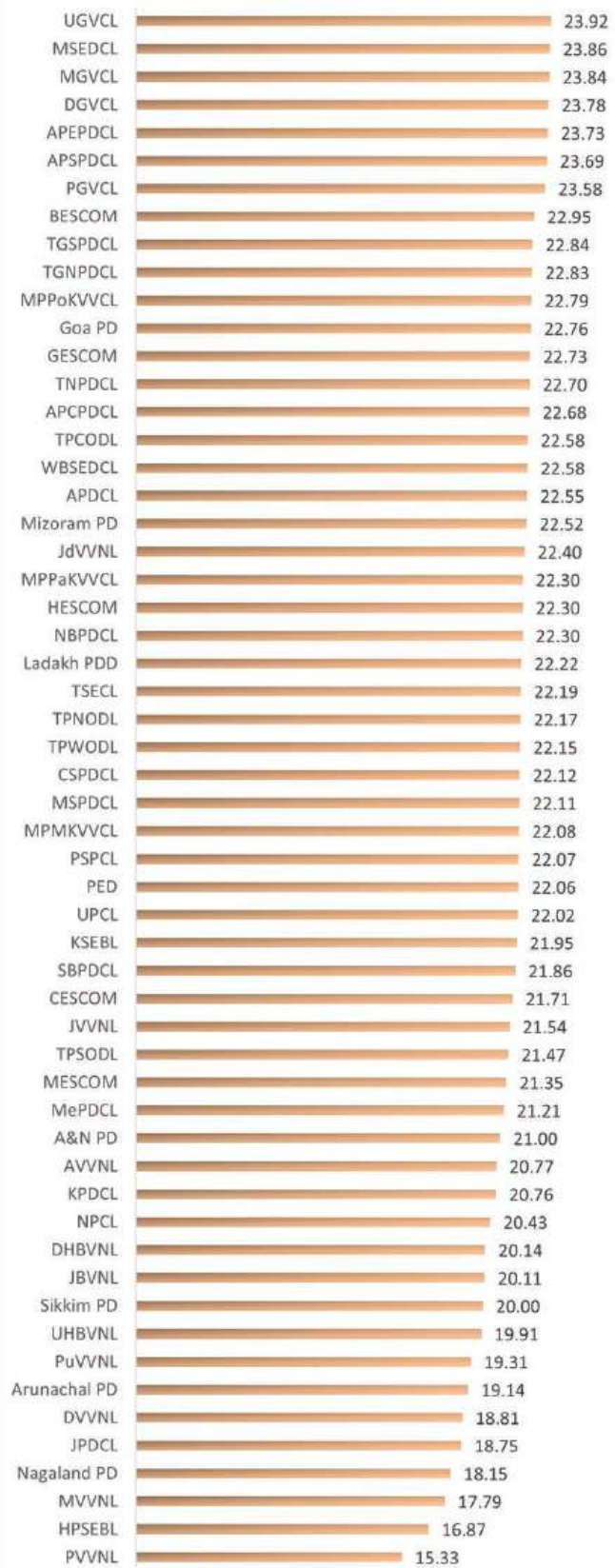
National Average:
23.53 Hours

National Minimum:
21.44 Hours

TAKEAWAYS

- 13.5% of urban consumers are receiving power supply below the National Average
- Leading DISCOMs (24 hours) are Delhi (BRPL & BYPL), Maharashtra (TPCL, AEML & BEST) and Lakshadweep (Lakshadweep ED)
- DISCOMs below national average HoS – 20 DISCOMs
- DISCOM above national average HoS- 46 DISCOMs
- Urban DISCOMs below National average are Uttar Pradesh (KESCO) & Chandigarh (CED)

2.2.2 Hours of Supply (HoS) - Rural



FAST FACTS

National Maximum:
23.92 Hours

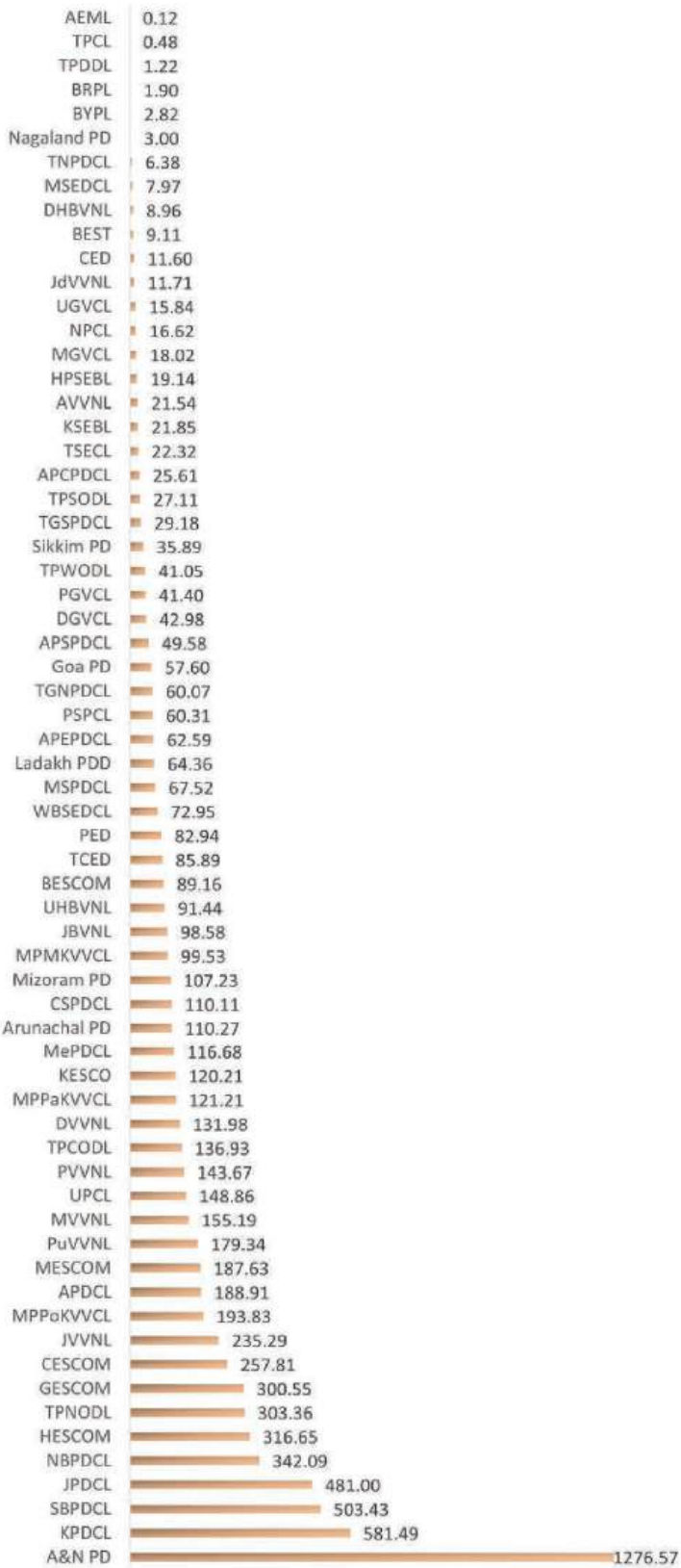
National Average:
21.57 Hours

National Minimum:
15.33 Hours

TAKEAWAYS

- DISCOMs that are below the national average are providing an average of 19.64 hours of supply, which is 13.3% less than the 22.64 hours supplied by discoms above the national average
- Leading DISCOMs (more than 23.5 HoS) are Gujarat (UGVCL, MGVCL, PGVCL & DGVCL), Maharashtra (MSEDCL) and Andhra Pradesh (APSPDCL & APEPDCL)
- DISCOMs below national average HoS – 20 DISCOMs
- DISCOM above national average HoS- 36 DISCOMs
- Private DISCOMs below National average – Uttar Pradesh (NPCL) and Odisha (TPSODL)

2.2.3 Interruption Index (Urban)



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

FAST FACTS

National Maximum:
1276.57

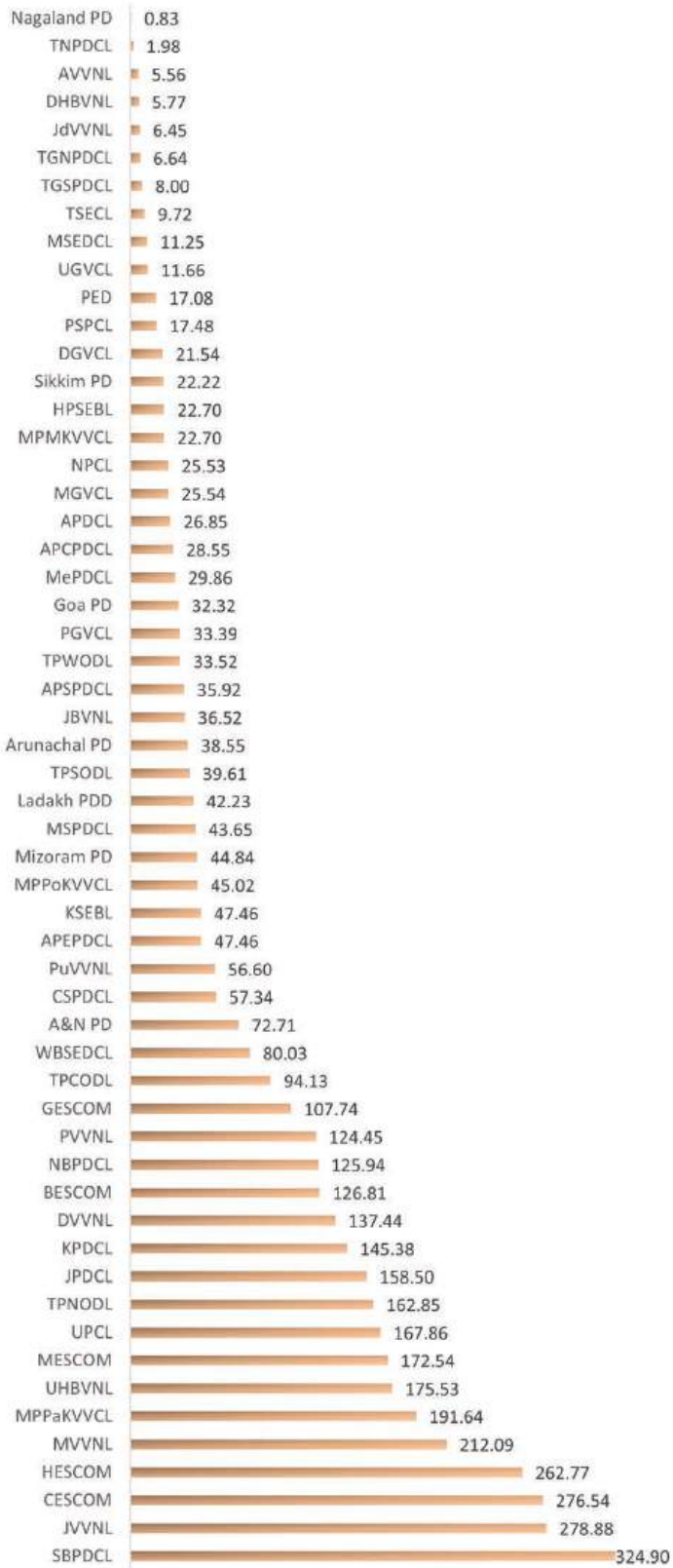
National Average:
126.72

National Minimum:
0.12

TAKEAWAYS

- National Average of Interruption Index improved by 36%, dropping from 200 in FY 2022-23 to 126.7 in FY 2023-24, indicating better power reliability
- Leading DISCOMs (less than 10 Interruptions Index/Year) are Tamil Nadu - TNPDCL, Delhi - TPDDL, BRPL & BYPL and Maharashtra – AEML, MSEDCL, TPCL & BEST, Nagaland - Nagaland PD and Haryana - DHBVNL
- DISCOMs performing better than national average Interruption Index – 46 DISCOMs
- DISCOM performing poorer than national average Interruption Index - 19 DISCOMs

2.2.4 Interruption Index (Rural)



FAST FACTS

National Maximum:
324.90

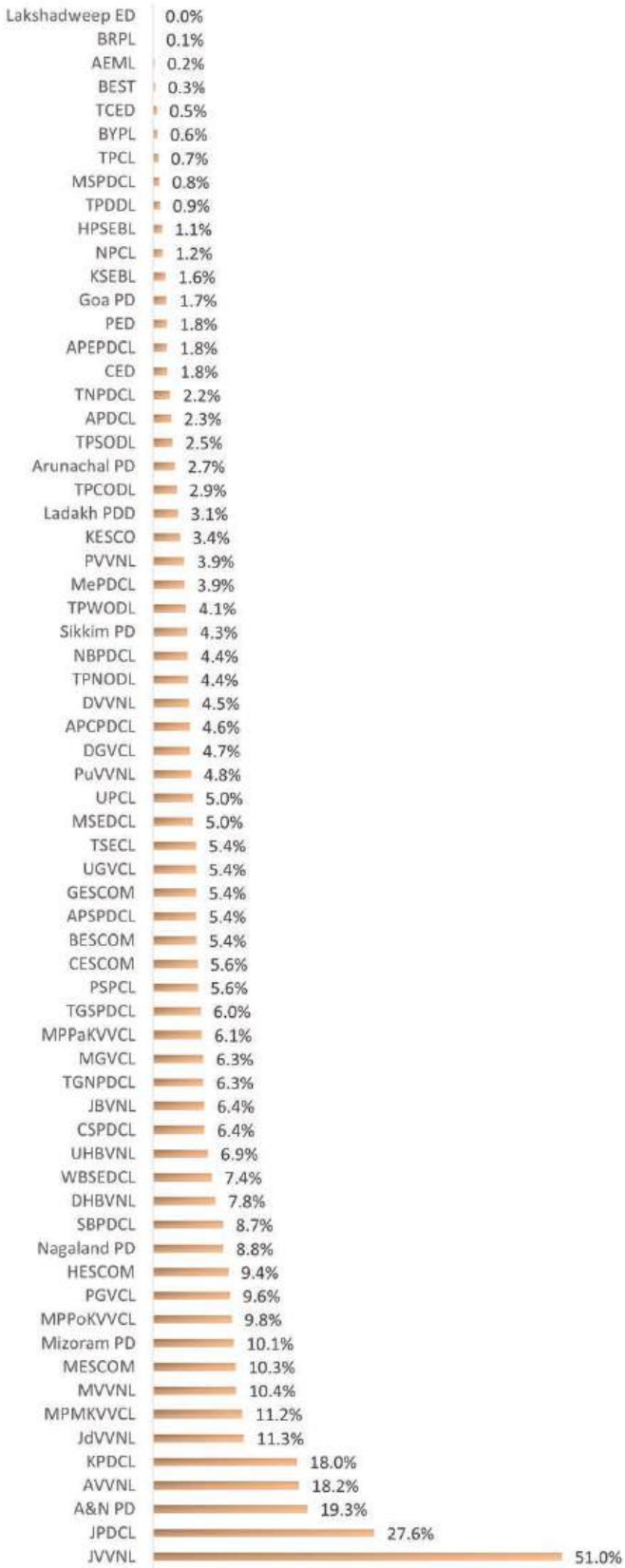
National Average:
77.88

National Minimum:
0.83

TAKEAWAYS

- Leading DISCOMs (less than 10 Interruptions Index/Year) are Tamil Nadu - TNPDCL, Tripura- TSECL, Telangana- TGNPDCL & TGSPDCL and Rajasthan – AVVNL & JdVVNL, Nagaland- Nagaland PD and Haryana- DHBVNL
- DISCOMs performing better than National Average Interruption Index – 37 DISCOMs
- DISCOM performing poorer than National Average Interruption Index - 19 DISCOMs

2.2.5 Distribution Transformer (DT) Failure Rate



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:
51%

National Average:
6.4%

National Minimum:
0%

TAKEAWAYS

- None of the Private DISCOMs have a Distribution Transformer (DT) Failure Rate poorer than the National Average, indicating strong performance in asset management
- 9 DISCOMs have achieved less than 1% DT Failure Rate
- 20 DISCOMs have DT Failure Rate more than the National Average
- Highest DT failure rate – JVVNL (51 %)

2.3 CONNECTIONS AND OTHER SERVICES

This section exclusively focuses on the DISCOMs status on compliance to the industry best practices (herein the Consumer Rules, 2020), delving into aspects like alignment of the state regulations with the Consumer Rules, 2020, presence of predetermined demand charges for the New connections up to 150 kW load, application processing via online portals, presence of Net/Gross Metering at consumer level and timeliness of providing new connections.

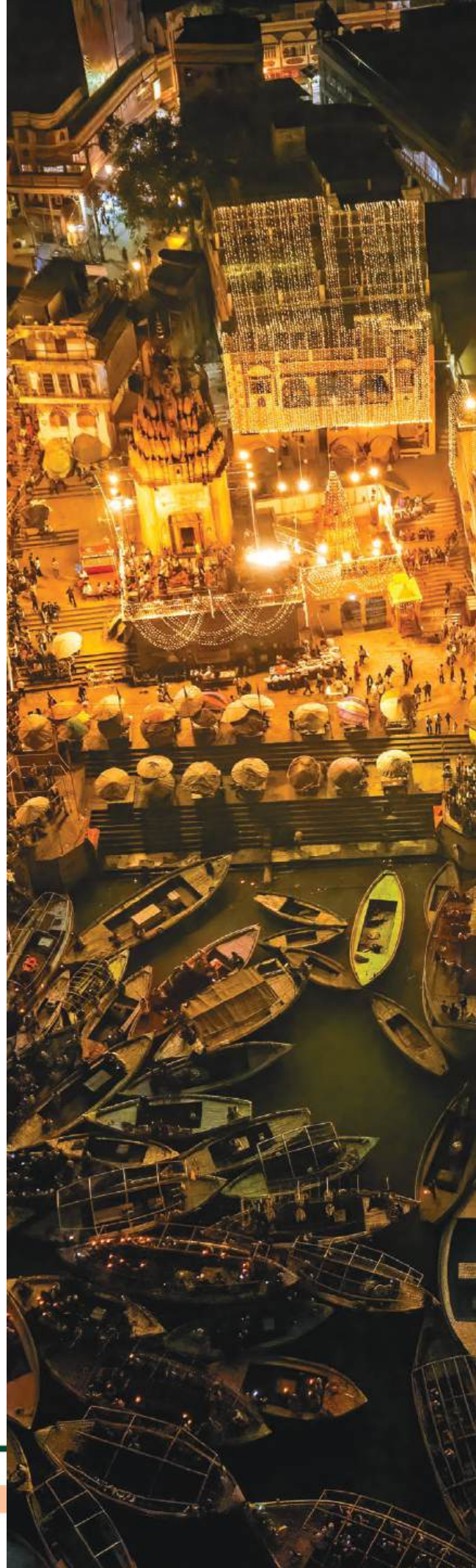
ANALYSIS OF SUB-PARAMETERS

2.3.1 Alignment of regulations with industry best practices (w.r.t. timelines)

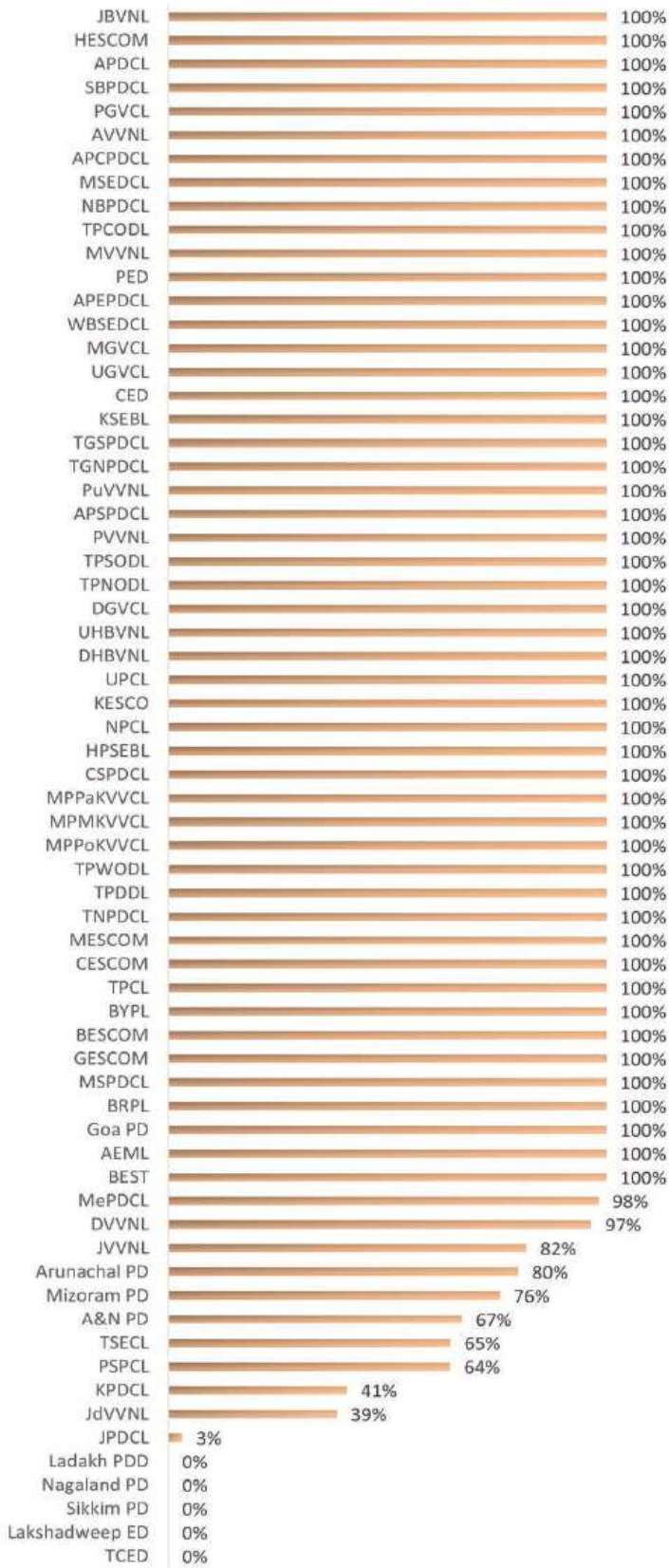
- The timelines defined in the Electricity (Rights of Consumers) Rules, 2020 serve as a benchmark for industry best practices. These encompass seven key areas, including connection releases, meter testing, issuance of no-dues certificates, claim settlements, feasibility studies for rooftop solar installations, and post-installation solar connectivity.
- 47 DISCOMs were unable to comply with all 7 regulations, with some like A&N PD and Nagaland PD, aligning with fewer than 4. This indicates significant room for improvement in compliance with consumer rules, highlighting opportunities for further progress.

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."
- 15 DISCOMs have successfully implemented predetermined demand charges for new connections up to 150 kW, reflecting a positive step toward simplification. Meanwhile, 51 DISCOMs are in the process of achieving compliance, offering significant potential for progress in this area.



2.3.3 Application processed through online portal



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%

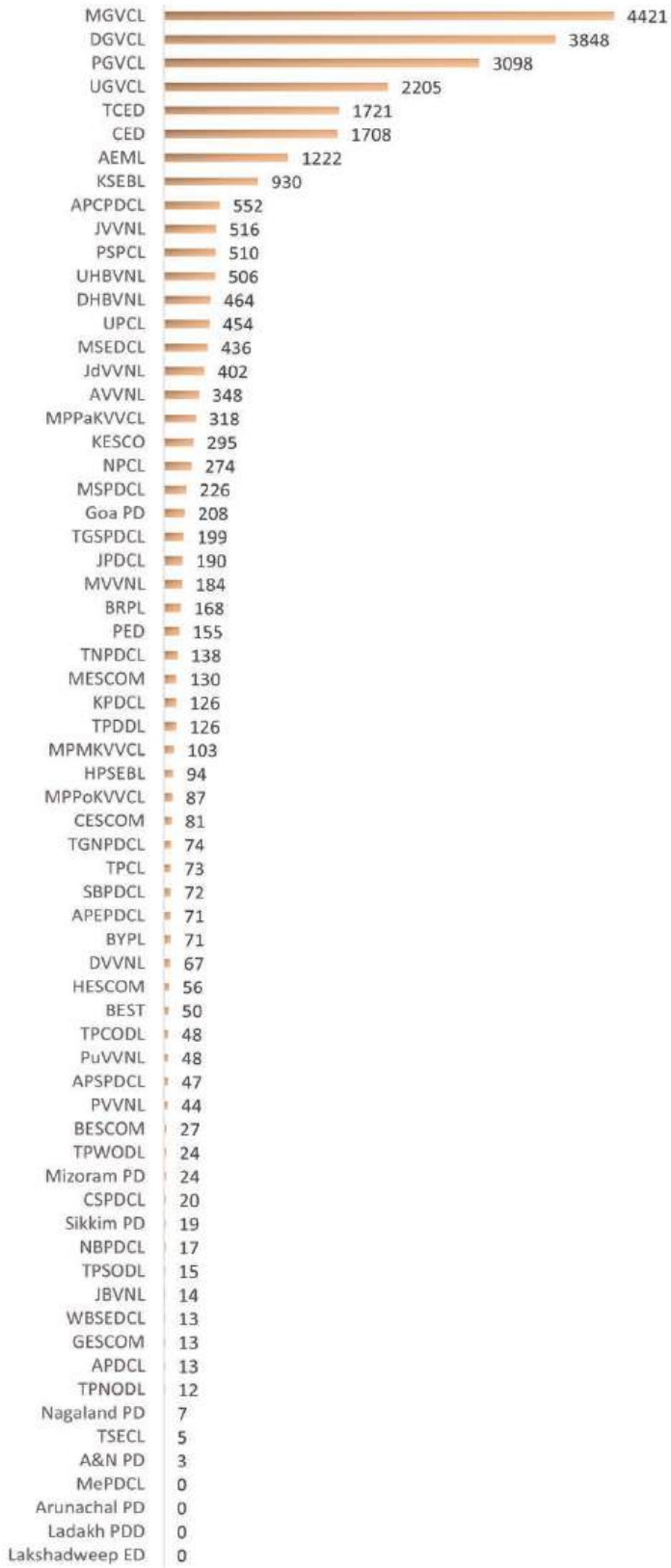
National Average:
87%

National Minimum:
0%

TAKEAWAYS

- 97% of total new connection provided in FY 2023-24 were processed through online process
- 50 DISCOMs have fully implemented 100% online application processing.
- 11 DISCOMs use a hybrid model, combining manual and online modes for application processing

2.3.4 Prosumers per lakh consumers (under net metering / gross metering)



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	5,73,279
Rest of India	6,79,387
TOTAL	**12,52,666**

TAKEAWAYS

- Leading DISCOMs with more than 1,000 prosumers per lakh consumers include AEML, MGVCL, DGVCL, PGVCL, UGVCL, CED, and TCED
- MGVCL has the highest number of prosumers, with 4,421 per lakh consumers, approximately 11 times the national average of 415 per lakh consumers

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

- Average deviation from the Standard Operating Procedure (SOP) 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.
- 49 DISCOMs comply with the timelines for releasing connections across all categories.
- Significant deviations from SOP timelines (over 50%) are observed in 3 DISCOMs: HESCOM, JdVVNL and JBVNL.

2.4 METERING, BILLING AND COLLECTIONS (MBC)

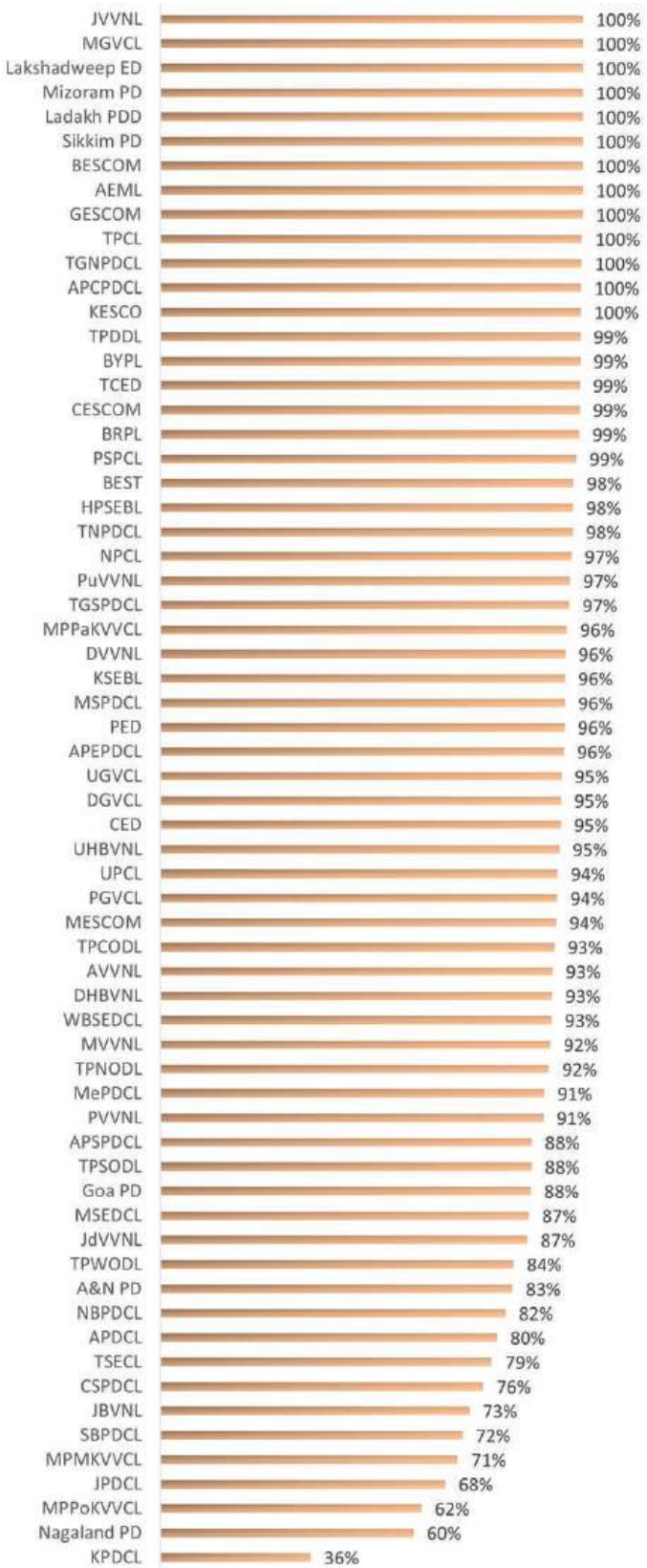
This parameter evaluates three essential areas of DISCOM operations: meter data collection, bill generation and issuance, and the revenue collection process. DISCOMs are assessed across nine sub-parameters, focusing on aspects such as the time taken to replace defective meters, modes of meter reading, billing frequency, quantum of bills generated, consumer engagement, RE and 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 efficiency, and complies with regulatory standards that mandate reliable and fair energy measurement for consumers
- **Leading DISCOMs:** TPCL, AEML, GESCOM, TPWODL, and BESCOM complete replacements within 24 hours in urban areas, while only GESCOM achieves this within 2 days in rural areas.

2.4.2 Bills Generated Based On Actual/ Working Meter Reading



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

FAST FACTS

National Maximum:
100%

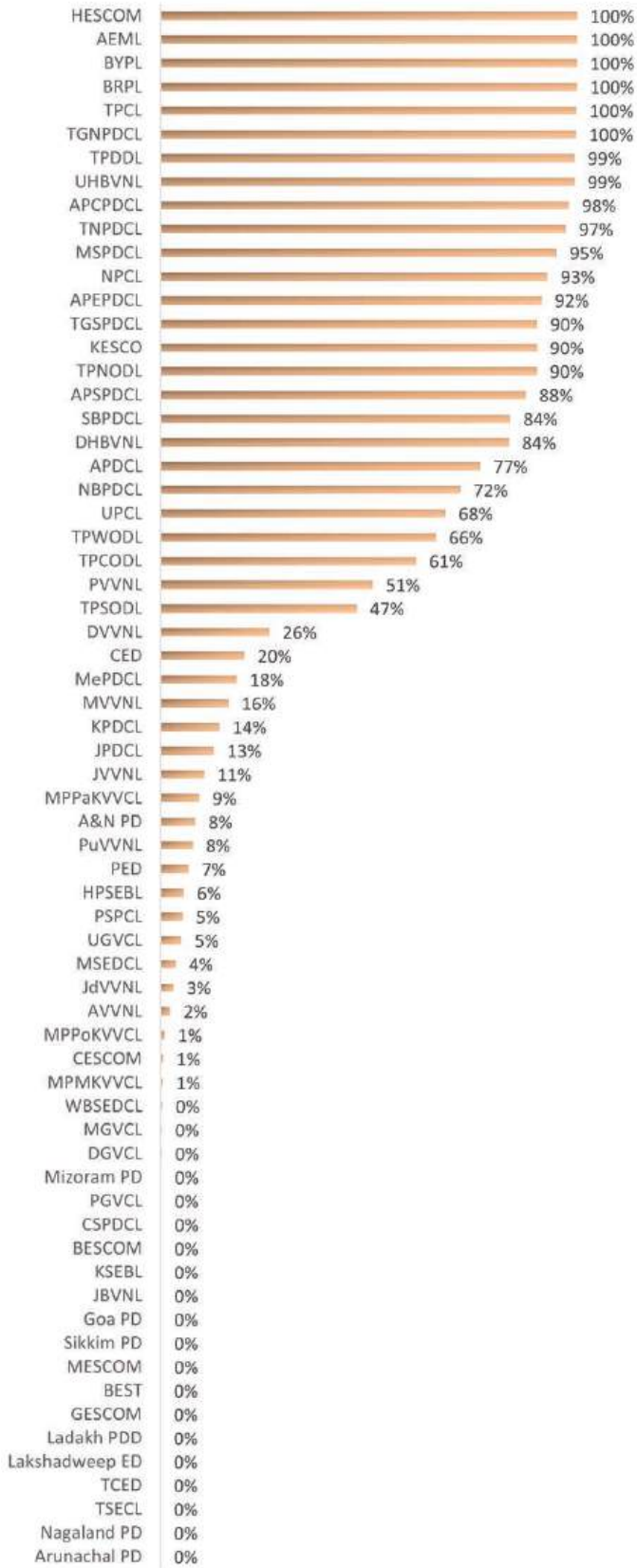
National Average:
91%

National Minimum:
36%

TAKEAWAYS

- Three DISCOMs—MPPoKVVCL, Nagaland PD and KPDCL generated less than 65% of bills through actual meter readings, indicating a need for them to reassess their practices in maintaining the functionality of the electricity meters
- 47 DISCOMs exceed the national average in bill generation based on actual meter reading
- 7 DISCOMs—LPDD, Sikkim PD, Mizoram PD, Lakshadweep ED, MSPDCL, UPCL, and MePDCL generate a higher proportion of bills based on actual meter readings than the national average

2.4.3 Bills generated based on non-manual Meter Reading



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:
37%

National Minimum:
0%

TAKEAWAYS

- The National Average has increased by 7% 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, HESCOM, BYPL, BRPL, TPCL, and TGNPDCL
- In contrast, Ladakh PDD, Lakshadweep ED, TCED, TSECL, and Nagaland PD currently have a 0% reliance on automated meter reading methods, presenting an opportunity for future advancements in this area

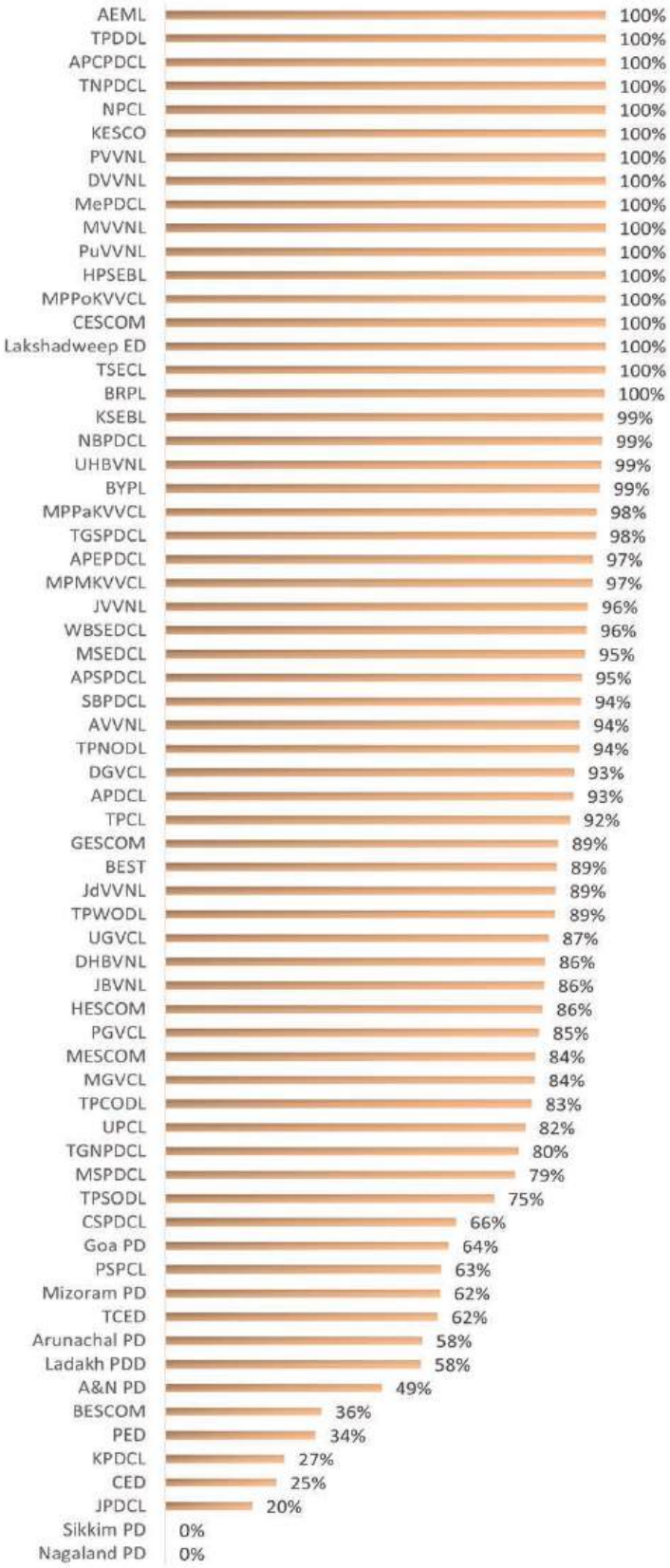
2.4.4 Billing frequency for domestic category consumers as per regulations

- 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 53 DISCOMs, bi-monthly in 5 DISCOMs, and follows multiple billing cycles in 8 DISCOMs.

2.4.5 Bills generated for domestic consumers in a year

- Generating bills for domestic consumers throughout the year ensures consistent cash flow and reduces revenue leakage for the DISCOM.
- DISCOMs—JBVNL, Ladakh PDD, and Arunachal PD—generates less than 80% of the total bills to be generated in a year.

2.4.6 Percentage of Consumers Receiving Billing Alerts



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:
82%

National Minimum:
0%

TAKEAWAYS

- The foremost DISCOMs providing billing alerts to consumers at a rate of 100% include 17 DISCOMs across 9 states and Union Territories: TNPDCL, AEML, NPCL, KESCO, MPPoKVVCL, PVVNL, DVVNL, MVVNL, PuVVNL, CESCOM, APCPDCL, HPSEBL, TSECL, TPDDL, MePDCL, Lakshadweep ED, and BRPL
- Furthermore, there are 48 DISCOMs that facilitate billing alerts to consumers at a rate exceeding the national average of 82%

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.
- 12 DISCOMs with a significant proportion of prepaid consumers, exceeding 10%: MSPDCL, PSPCL, SBPDCL, NPCL, KESCO, Sikkim PD, NBPDCL, TSECL, APDCL, TPCL, KPDCL, and Arunachal PD.
- 37 DISCOMs have a lower proportion of prepaid consumers, comprising less than 0.5%, including those DISCOMs without any prepaid metering systems.
- Prepaid meters empower consumers to track and manage energy costs, while utilities benefit from reduced billing errors and improved collection.

FAST FACTS

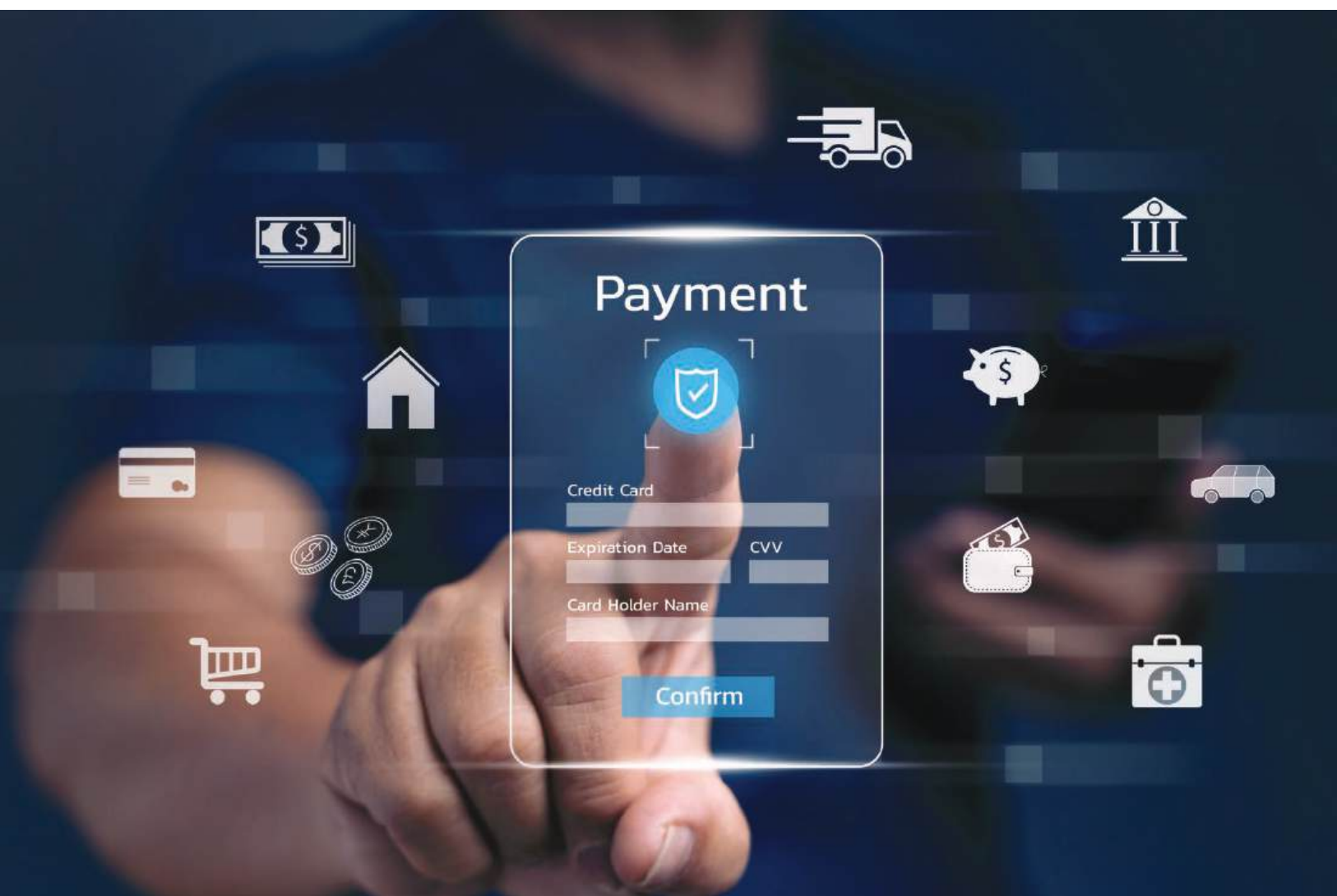
National Maximum:
87%

National Average:
6%

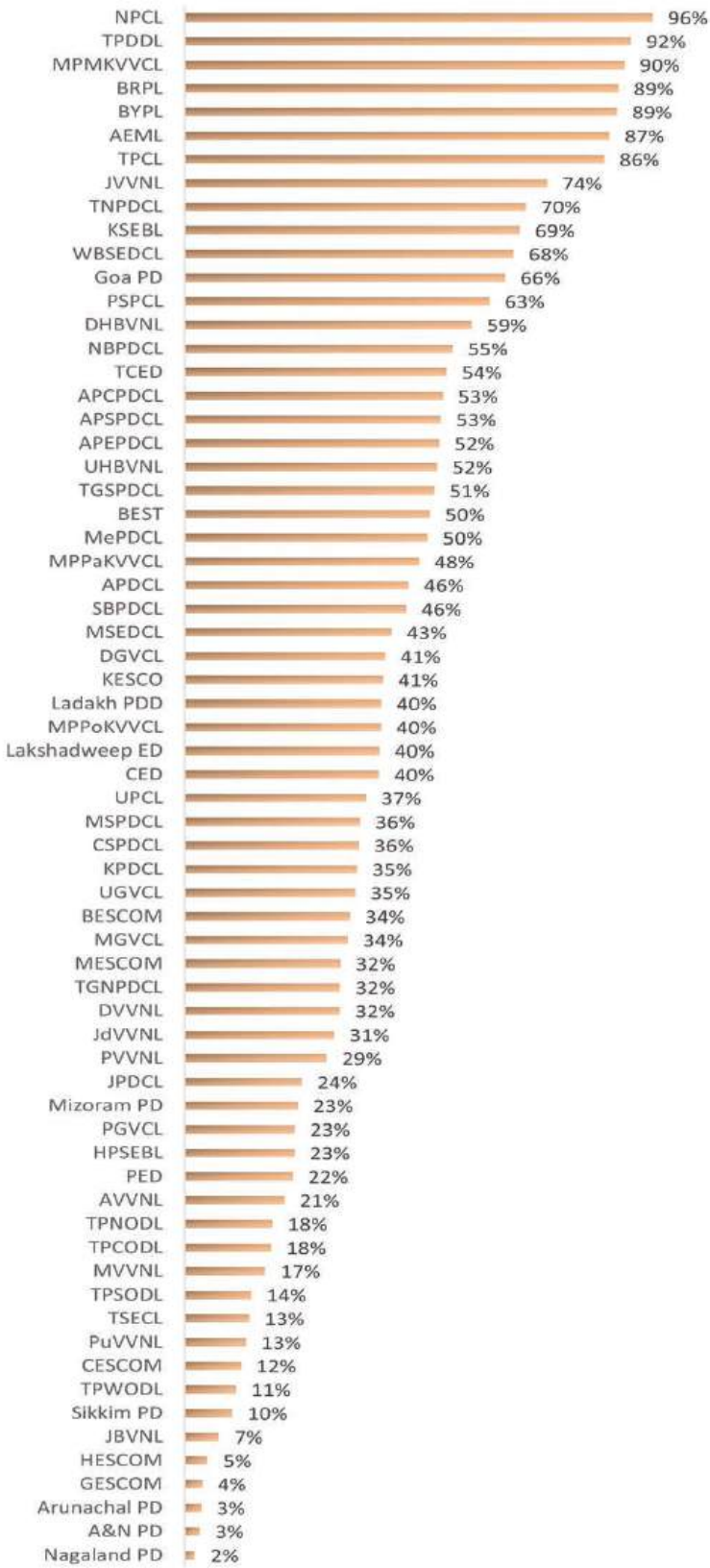
National Average:
0%

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 42 DISCOMs that have fewer tariff categories/slabs than the national average, which stands at 52.



2.4.9 % Bills Paid Digitally



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:
96%

National Average:
41%

National Minimum:
2%

TAKEAWAYS

- The leading DISCOMs, where over 80% of bills are paid via online modes, include 7 DISCOMs: AEML, NPCL, MPMKVVCL, BRPL, TPDDL, BYPL, and TPCL
- Additionally, there are 29 DISCOMs across 17 states and Union Territories where the proportion of consumers paying digitally exceeds the national average of 41%

2.5 FAULT RECTIFICATION AND GRIEVANCE REDRESSAL (FRGR)

FRGR encompasses parameters that ensure the 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 centre

- 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 8 DISCOMs: BEST, CED, Lakshadweep ED, Ladakh PDD, Mizoram PD, Nagaland PD, Sikkim PD, 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.
- ACWT of private DISCOMs, at 11.14 seconds, is 49% lower than that of public DISCOMs.
- Leading DISCOMs with an ACWT of less than 5 seconds are: BRPL, TPCL, GESCOM, AVVNL, BYPL, MPPaKVVCL, MPPoKVVCL, and NPCL.

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 17 DISCOMs: AEML, APCPDCL, DGVCL, NPCL, SBPDCL, MVVNL, TGNPDCL, TPDDL, PVVNL, PuVVNL, DVVNL, MPPoKVVCL, KESCO, CESCOM, Lakshadweep ED, TNPDCL, and PSPCL.
- 9 DISCOMs do not provide outage alerts to consumers: JVVNL, JPDCL, TSECL, HESCOM, Ladakh PDD, CED, 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, 49 resolve complaints within the specified timeline on average.
- DISCOMs with more than 100% deviation from the specified time for complaint resolution: JBVNL (Jharkhand), TPSODL (Odisha), and PuVVNL (Uttar Pradesh).
- 7 DISCOMs 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.
- 65 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 10 established CGRFs per lakh consumers include Ladakh PDD and MSPDCL.

Ganesh Visarjan, Mumbai: The streets of Mumbai come alive with vibrant colors and infectious energy during Ganesh Visarjan. The vibrant celebration held on the last day of Ganesh Chaturthi, when devotees bid farewell to Lord Ganesha by immersing his idol in water. This ritual symbolizes the cycle of creation and dissolution, reminding the temporary nature of life and material possessions.

3

KEY FINDINGS

A key objective of the CSRD exercise has been to create a unified platform for DISCOMs, enabling them to learn from the performance of their counterparts. While some DISCOMs have attained top grades, others have been recognized as having opportunities for improvement. The subsequent section explores a detailed performance summary based on various parameters and provides a comparative analysis of the CSRD FY 2023 -24 report with previous CSRD editions.

3.1 DISCOMs and Consumer spread across the grade scale

A deeper analysis of the states/DISCOMs concerning key performance parameters and the number of consumers served reveals important insights. In total, the 66 DISCOMs included in the grading process are serving 33.4 Crore electricity consumers.

Grade Scale	A+	A	B+	B	C+	C	D
DISCOM Count	6	15	22	14	7	2	0
Consumer Spread	3%	31%	44.6%	18%	3%	0.4%	0%

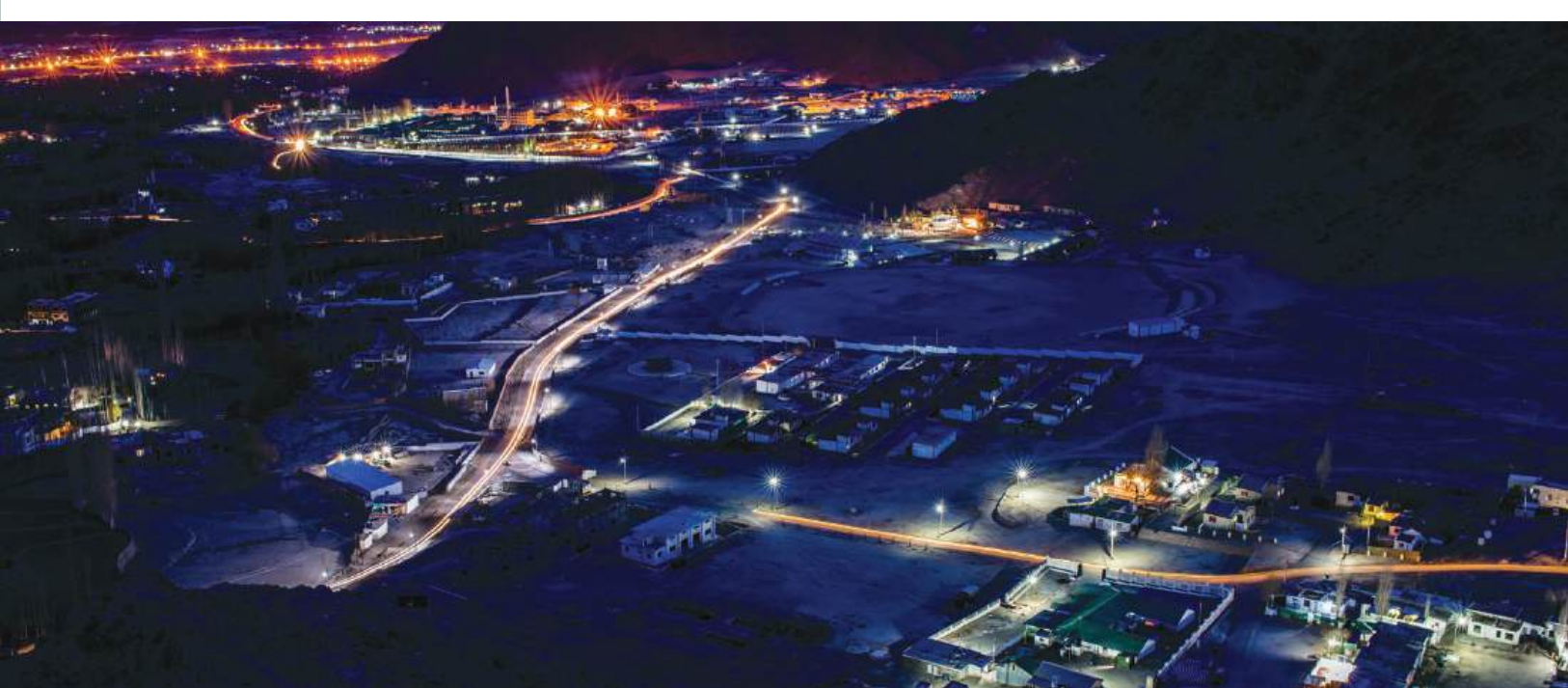
- 6 DISCOMs have secured the highest grade of "A+", and 15 DISCOMs have received an "A" grade.
- The majority of DISCOMs, 22 in total, have achieved a "B+" grade, and no DISCOM has received a "D" grade.
- Overall, 34% of consumers experience "A+" or "A" grade services, whereas only 0.4% of consumers 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 2023-24

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.

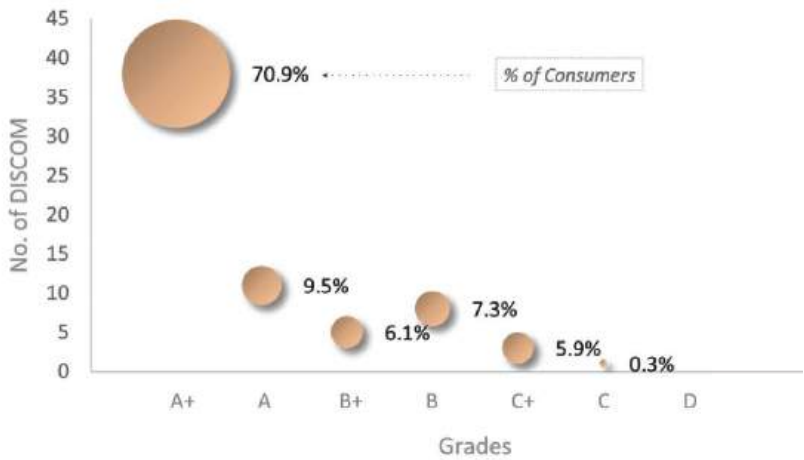
- Overall, this year DISCOMs have shown comparatively better performance across two broad parameters: OR and FRGR, with 49 and 40 DISCOMs securing "A+" or "A" grades, respectively.
- In contrast, only 6 DISCOMs have achieved "A+" or "A" grades in the MBC category, while the majority, 26 DISCOMs, have received "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 9, have received the lowest grade of D, indicating generally inferior performance in this area.



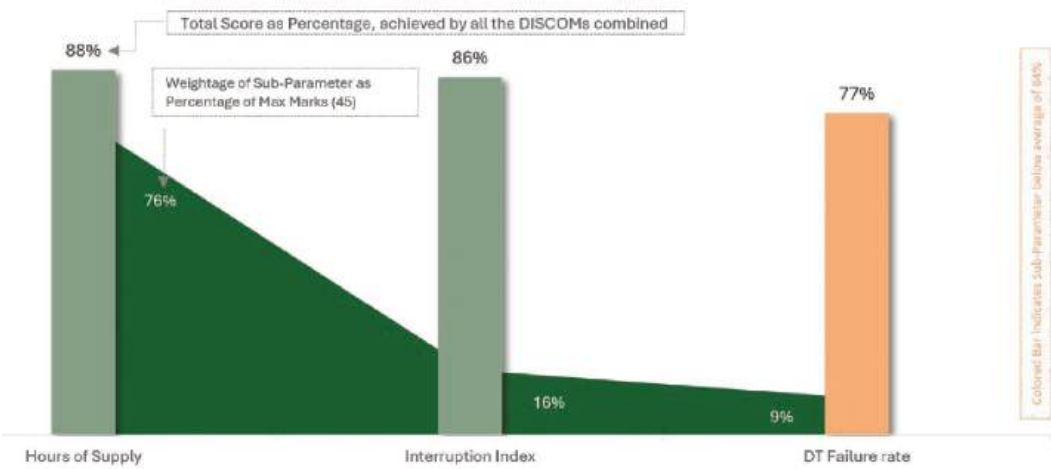
3.3 Parameter specific services to the consumers

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

3.3.1 Operational Reliability (OR)



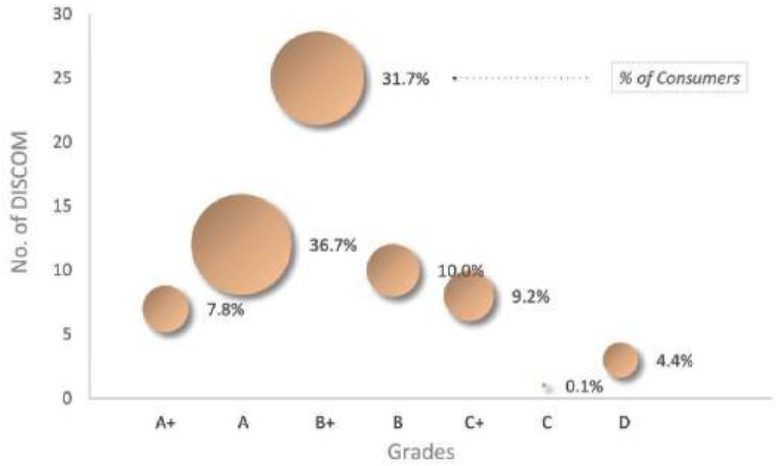
- Out of 33.4 crore consumers, 23.70 crore (70.9%) are experiencing "A+" grade services, provided by 38 DISCOMs.
- A low 13.36 lakh (0.3%) consumers are receiving "C" grade operational reliability services from one DISCOM, and no consumers are receiving "D" graded service in this category.
- Considering "A+" and "A" graded DISCOMs as benchmarks for performance, it can be inferred that 80.4% of the overall consumers receive superior Operational Reliability services.



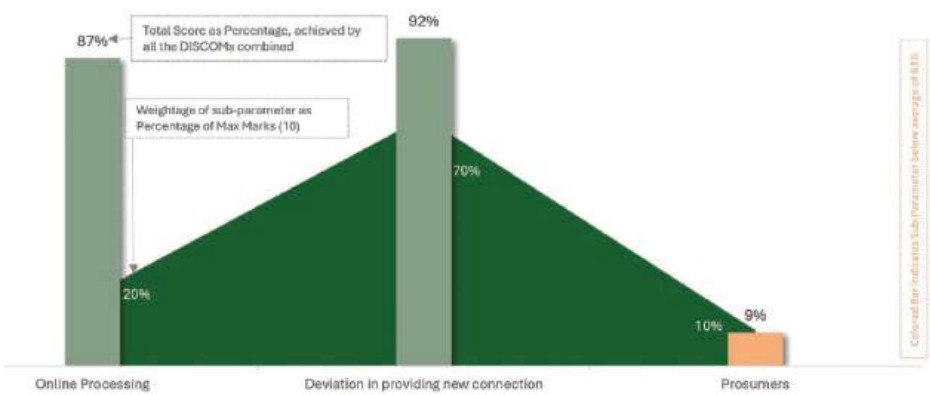
The bar chart shows the total score (in %) of all DISCOMs, while the area chart depicts the weight (in %) of each sub-parameter. This indicates the cumulative performance of DISCOMs and areas of improvement.

- 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 88% in this area. Notably, major DISCOMs contributing to these impressive scores include BEST, BYPL, AEML, Lakshadweep ED, BRPL, 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 to enhancing the overall operational reliability score and Reliability of supply for the consumers.

3.3.2 Connections and Other Services (CoS)



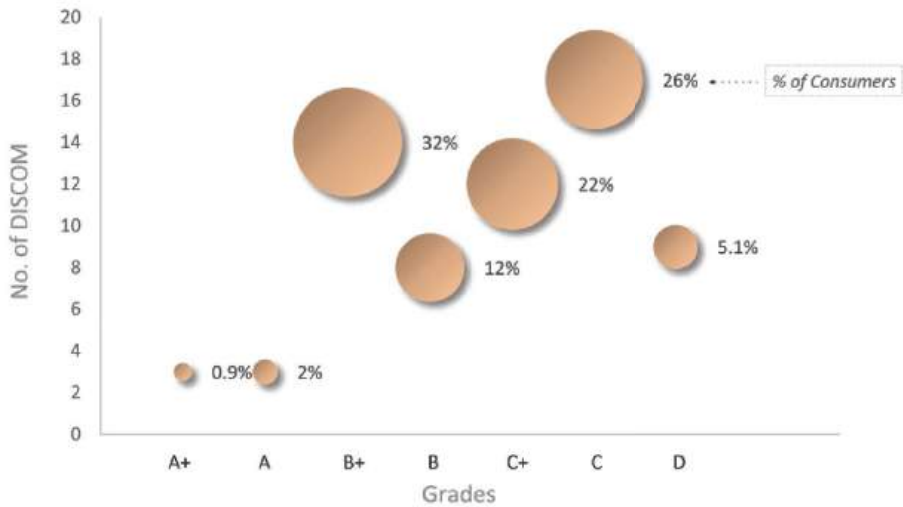
- Out of 33.4 crore consumers, 2.6 crore (7.8%) are served by 7 DISCOMs with "A+" grade, while 1.46 crore (4.4%) consumers are experiencing "D" grade services under the Connections and Other Services parameter, provided by 3 DISCOMs.
- Considering "A+" and "A" graded DISCOMs as benchmarks for performance, it can be inferred that 45% of the overall consumers receive a superior level of CoS.
- DISCOMs graded "C" and "D" under CoS cumulatively serve 4.5% of the overall consumers, indicating a significant portion of the consumer base receives relatively inferior CoS.



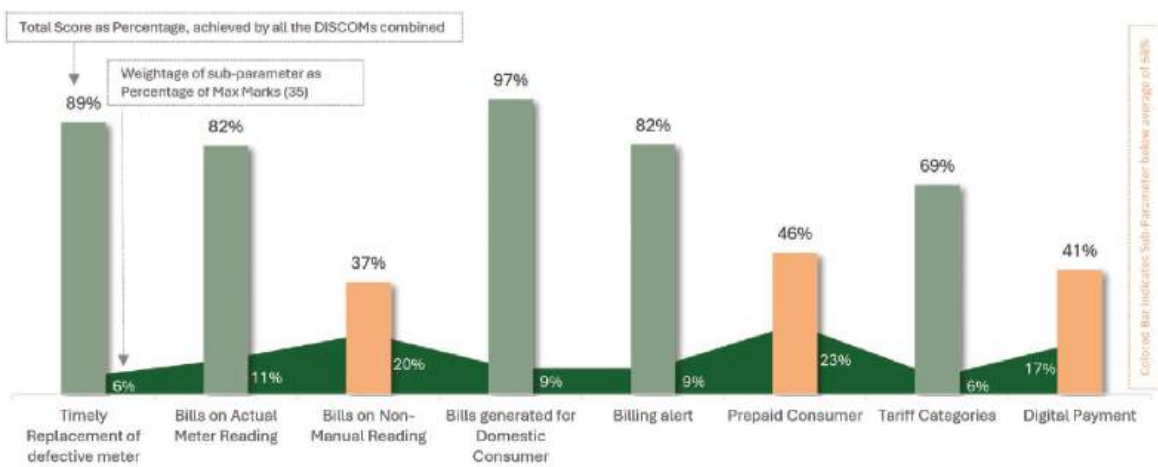
The bar chart shows the total score (in %) of all DISCOMs, while the area chart depicts the weight (in %) of each sub-parameter. This indicates the cumulative performance of DISCOMs and areas of improvement.

- Despite its relatively low weightage of 10%, the Connection & Other Services (COS) parameter plays a vital role in indicating the efficiency and effectiveness of DISCOMs in delivering essential services, which are crucial for maintaining customer satisfaction and regulatory compliance.
- Achieving a high score in the COS parameter has proven beneficial for DISCOMs such as TPCL & NBPDCL, which experienced an upgrade of two grades due to their strong performance. While a poor COS score can adversely affect a DISCOM's standing, as evidenced by AVVNL, which faced one step downgrade. This underscores the parameter's influence on the overall evaluation and ranking of DISCOMs.
- The low score (9%) achieved in Prosumer sub-parameter indicates a lag in 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)



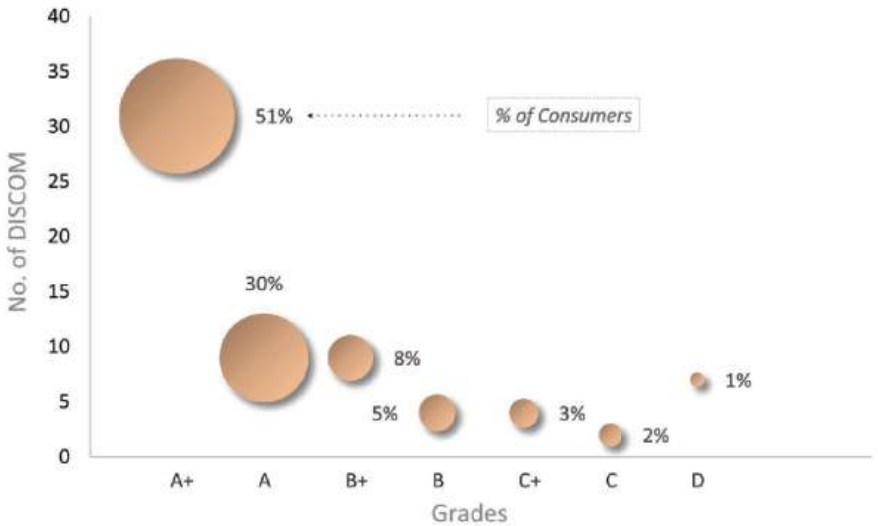
- Under this parameter, 0.96 crore consumers (2.9%) across 6 DISCOMs have experienced "A+" and "A" grade services.
- Approximately 8.7 crore consumers (26%) and 1.7 crore consumers (5%) are served by 17 and 9 DISCOMs, respectively, receiving "C" and "D" grade services under MBC. This indicates that a cumulative 31% of the consumers are experiencing relatively inferior services under this parameter.



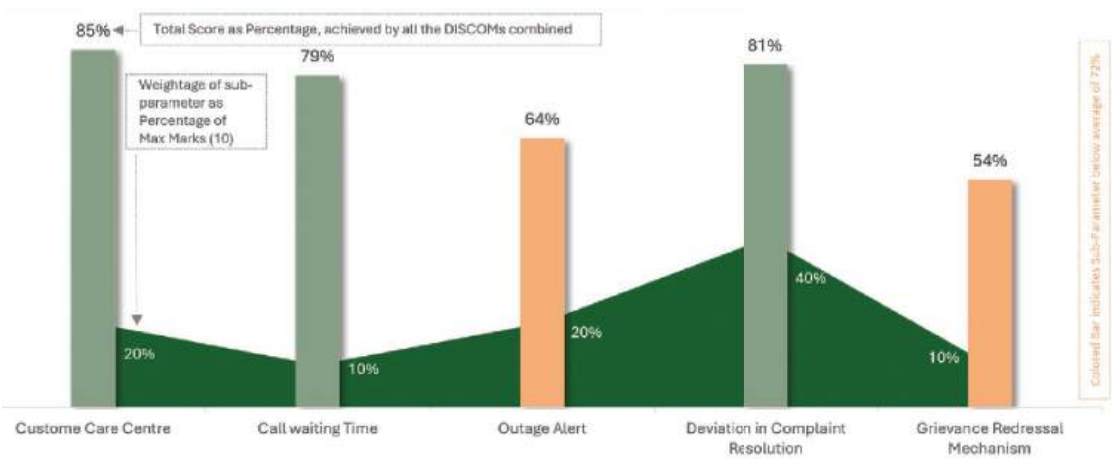
The bar chart shows the total score (in %) of all DISCOMs, while the area chart depicts the weight (in %) of each sub-parameter. This indicates the cumulative performance of DISCOMs and areas of improvement.

- 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 such as integrating more automated meter reading mechanisms like promoting smart meters, encouraging prepaid consumers, and increasing 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 33.4 crore consumers, 17 crore (51%) are served by 31 DISCOMs with "A+" grade in the FRGR parameter, while 0.3 crore (1%) are experiencing "D" grade services.
- Considering "A+" and "A" graded DISCOMs as benchmarks for performance, it is evident that 81% of the overall consumers experienced superior FRGR services.
- DISCOMs graded "C" and "D" under FRGR cumulatively serve 3% of the overall consumers, indicating a significant portion of the consumer base experiences inferior FRGR services.

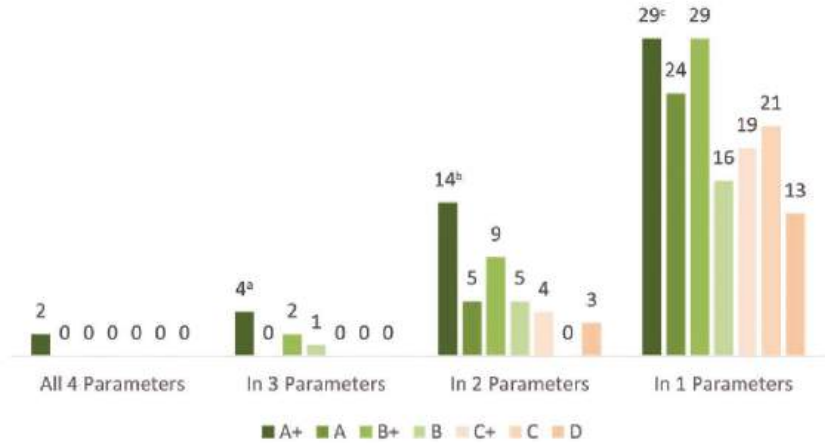


The bar chart shows the total score (in %) of all DISCOMs, while the area chart depicts the weight (in %) of each sub-parameter. This indicates the cumulative performance of DISCOMs and areas of improvement.

- Despite its relatively low weightage of 10%, the FRGR parameter is crucial for indicating 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.

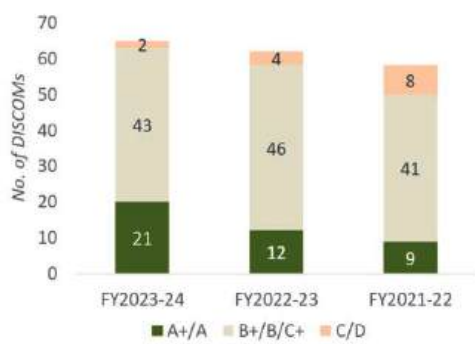


- 2 DISCOMs has secured A+ grades across all 4 broad parameters.
- [a]4 DISCOMs have secured A+ grades in 3 parameters, [b]14 DISCOMs have secured A+ grade in 2 parameters and [C]29 DISCOMs have secured A+ grade in 1 parameters amongst the 4 parameters
- 16 DISCOMs have attained lowest grades of D across in at least 1 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 (FY 2022-2024)

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 2021-22, FY 2022-23, and FY 2023-24. The number of DISCOMs participating in the grading exercise has increased from 62 in FY 2022-23 to 66 in FY 2023-24.

Grades	FY 2023-24	FY 2022-23	FY 2021-22
A+	6	4	0
A	15	8	9
B+	22	23	13
B	14	19	16
C+	7	4	12
C	2	3	4
D	0	1	4
Total	66	62	58



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

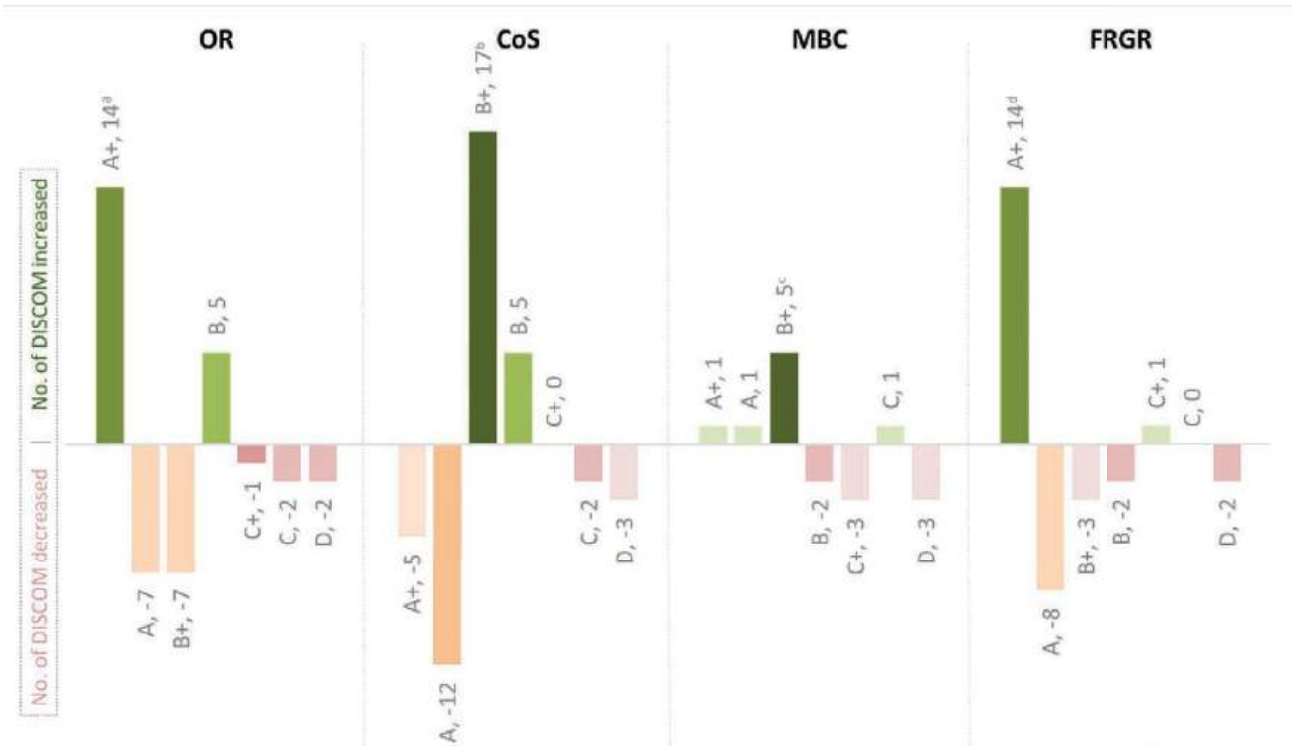
- The proportion of DISCOMs achieving higher grades (A+/A) has been increasing, while those securing lower grades (C/D) have been decreasing year-on-year.

- 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 9 in FY 2021-22 to 12 in FY 2022-23, and then to 21 in FY 2023-24.
- The number of DISCOMs receiving B+/B/C+ grades also increased significantly from 41 in both 2022 to 46 in 2023. In FY 2023-24, this number reduced to 43 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 8 in 2022, dropping to 4 in 2023, and further down to 2 in 2024. This year-over-year reduction, with a 50% decrease from 2022 to 2023 and a similar 50% decrease from 2023 to 2024, indicates an improvement in these DISCOMs' consumer services.

  Over the past three years, 8 DISCOMs namely AEML (Maharashtra), BYPL (Delhi), BRPL (Delhi), TGSPDCL (Telangana), TPDDL (Delhi), APEPDCL (Andhra Pradesh), APSPDCL (Andhra Pradesh), and NPCL (Uttar Pradesh)—have consistently achieved top grades (A/A+). In contrast, only one DISCOM, JPDCL (Jammu & Kashmir), has consistently received C/D grades from FY 2021-22 to FY 2023-24.

3.5 Change in the grade spread in FY 2023-24

The table below provides an overview of the changes in the grade distribution of DISCOMs across the four key parameters in FY 2023-24 compared to the FY 2022-23 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 62 DISCOMs, which were involved in both FY 2022-23 and FY 2023-24, has been undertaken, with the exclusion of 3 DISCOMs i.e Lakshadweep ED, Meghalaya PD & Nagaland PD which did not participate in CSRD exercise of FY 2022-23 and TCED, which participated for the first time in FY 2023-24 edition.*

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 highest grade, "A+", within the OR parameter, with an addition of 14 DISCOMs in FY 2023-24.

b. Under the CoS parameter, the largest shift is seen in the "B+" category, with an addition of 17 DISCOMs.

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

d. For the FRGR parameter, an upward shift is observed in the "A+" grade, with the addition of 14 DISCOMs, respectively

It is significant that there has been a clear reduction in the number of DISCOMs with a "D" grade across all criteria, while the OR category has experienced a noticeable rise in "A+" grade DISCOMs. Many DISCOMs improved their performance in the MBC category, moving up to higher grades (from D/C+/C to A+/A/B+), indicating an upgrade in their ratings. However, in the COS 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 the DISCOMs to evaluate their performance across various sub-parameters and implement necessary improvements.

Christmas: Celebrated with enthusiasm and inclusivity, reflecting the nation's secular ethos by uniting diverse communities in the spirit of giving and cultural exchange symbolizing unity and joy by embracing the spirit of giving, love, and cultural diversity.

Kaliyattam Theyyam, Kerala: An annual festival celebrated in the Malabar region of Kerala, where Theyyam (A ritualistic art form) is performed. The performer, adorned in elaborate attire and vibrant face paint, embodies the spirit of a revered warrior-chieftain named Kelan. Through dance and ritual, he reenacts the legendary warrior's journey, invoking the blessings and protection of the deities for the village. The air fills with the rhythm of drums and the scent of incense as the community revels in this profound connection to their ancestors and the divine.

4

OUTLOOK OF GLOBAL AND DOMESTIC BEST PRACTICES IN ELECTRICITY DISTRIBUTION

Driven by a series of reforms and innovations, a dynamic transformation is taking place in the electricity distribution sector, significantly enhancing operational efficiency and bolstering service reliability. At the heart of this evolution is a customer-centric approach that drives the adoption of innovative solutions across all service areas. This shift has led to marked improvements in electricity supply reliability, characterized by fewer outages and the deployment of automated systems that expedite service restoration. Moreover, consumers now have greater autonomy in choosing their electricity suppliers, fostering healthy market competition. This increased consumer agency compels utilities to continuously elevate their service quality to retain and attract customers.

Despite significant progress, power utilities continue to encounter unique challenges arising from geographical diversity, varied demographics, and an ever-changing climate. To effectively manage these complexities while maintaining high service standards and ensuring business continuity, a multifaceted approach is essential. This involves implementing a comprehensive array of technical and commercial strategies. Research has identified several noteworthy practices that could greatly enhance the performance of DISCOMs in India. These practices include developing resilient and robust distribution infrastructure, adopting consumer-friendly billing systems, reducing response times, and improving grievance handling mechanisms.

Moreover, integrating smart technologies and IT solutions can streamline operations and boost overall efficiency. Both global and Indian utilities/DISCOMs have effectively utilized cutting-edge technologies and established practices to optimize operations, refine metering and billing processes, and implement consumer-centric strategies. These initiatives have led to increased operational efficiency, reduced downtime, and notable improvements in customer satisfaction. The success of several global utilities, especially those in mature economies, highlights the critical role electricity plays in driving industrial growth. These utilities have set a high industry standard, showcasing the potential for substantial enhancements in service delivery.

By embracing best practices from both global and Indian DISCOMs, underperforming utilities in India can revamp their operations, upgrade their infrastructure, and innovate to close existing service quality gaps. This proactive strategy will not only elevate service standards for Indian consumers but also contribute to the broader progress of the global electricity distribution sector.

Enhancing Utility Performance: Global Best Practices:

Illustration Practice – I

Practice Head: Customer Satisfaction (Analytics Tool)	**Country Name:** Saudi Arabia	**Utility Name:** SEC (Saudi Electricity Company)
Performance Outlook: Saudi Electricity Company (SEC) developed a reporting system to analyze customer chat volumes, topics, and resolution efficiency through Bot Performance Analytics. This system aims to improve its customer interactions through WhatsApp and a chatbot and make it more efficient. It has resulted in reduced service cost and enhanced customer satisfaction.		
Key features of the Practice: • Conducted diagnostic analysis to identify root causes of key inquiries • Upgraded the technology environment and currently undergoing code migration • Deployed on SEC PowerBI reporting server by authorized personnel • Identified automation issues and are currently addressing missing metrics due to data unavailability • Completed data automation task for this build • Increased customer adoption of the bot		

Illustration Practice – II

Practice Head: System Reliability	**Country Name:** Canada (Mississauga)	**Utility Name:** Alectra Utilities
Performance Outlook: In 2023, the average number of hours of interruption to a customer (excluding loss of supply and major event days) was 0.83 hours, compared to 0.88 hours in 2022. Moreover, in the same year the average number of times of interruption to a customer was 1.06, compared to 1.07 occurrences in 2022.		
Key features of the Practice: Alectra Utilities has achieved shorter average outage durations in 2023, primarily due to the increased and enhanced use of automated devices in system restoration efforts. Performance improvements are attributed to a reduction in the quantity of customer interruptions stemming from defective equipment.		

Illustration Practice – III

Practice Head: Operational Reliability & Outages	**Country Name:** Chicago (Chicago Illinois, US)	**Utility Name:** (ComEd) Commonwealth Edison
Performance Outlook: In 2023, ComEd delivered energy with 99.98% reliability, marking its best performance to date. Approximately 85% of ComEd's customers, or nearly 3.5 million people, experienced either zero or just one power interruption. Impressively, nearly 2.5 million customers, accounting for over half of ComEd's customer base, had no interruptions at all throughout the year. ComEd's System Average Interruption Frequency Index (SAIFI) for 2023, including reportable storms, was a record-low 0.53, which is 61% better than the average between 2007 and 2011. Excluding reportable storms, the SAIFI was even lower at 0.41.		
Key features of the Practice: ComEd continues to proactively improve the performance of the distribution system through strategic investments directly targeting reliability and resiliency for the benefit of customers. Investments in system performance focuses on: • Resiliency and cable programs – to prevent outage frequency and duration. • Distribution automation and technology – to recover from faults when they do occur, provide operational flexibility and enable renewables integration. • Condition-based maintenance – leverage data analytics and operational intelligence to drive high value and high impact preventative maintenance. • Proactive upgrading of legacy equipment that has achieved its useful life.		

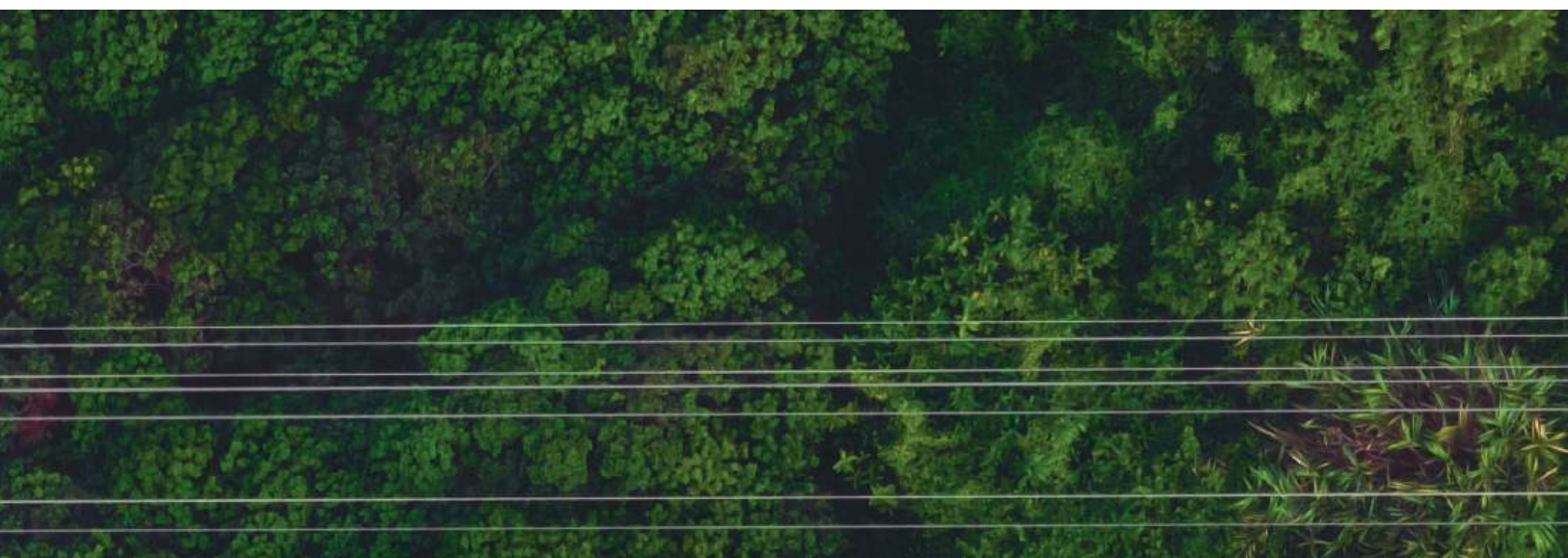


Illustration Practice – IV

Practice Head: Network Reliability	**Country Name:** United Kingdom (UK)	**Utility Name:** National Grid
Performance Outlook: National Grid, network reliability is at 99.99% for FY 2023-24		
Key features of the Practice: In FY2023, National Grid advanced its efforts to digitalize the customer connection process, expanding the program to include various low carbon technologies (LCTs) following the successful rollout of a self-service online tool for electric vehicle (EV) charger applications the previous year. Throughout the year, more than 80,000 LCT connections were established, with an impressive 89% of direct inquiries receiving same-day approval. Additionally, changes introduced through the Network Access Significant Code Review were implemented, allowing for the distribution of reinforcement costs, thereby facilitating more affordable LCT connections. National Grid is building resilience into operations across networks and the business through various activities such as: digitizing Business Continuity Program; testing advanced automated technology to restore customers more quickly and developing IT and digital resilience.		

Illustration Practice – V

Practice Head: Operational Reliability	**Country Name:** Dubai	**Utility Name:** DEWA
Performance Outlook: The SAIFI of 0.040 and SAIDI of 1.06 was reported for FY 2022-23		
Key features of the Practice: In 2023, DEWA set a new global benchmark by achieving the lowest Customer Minutes Lost (CML) in electricity supply, with customers experiencing an average power outage of just 1.06 minutes. This remarkable performance not only surpasses DEWA's previous record of 1.19 minutes per customer in 2022 but also significantly outperforms the approximately 15-minute average recorded by leading utility companies across the European Union. DEWA has achieved the world's lowest electricity Customer Minutes Lost (CML) at just 1.06 minutes per customer. This accomplishment results from innovative efforts in facility and service management through a smart, integrated grid. By leveraging the latest disruptive technologies of the Fourth Industrial Revolution, such as Artificial Intelligence (AI), blockchain, energy storage, and the Internet of Things (IoT), DEWA ensures the delivery of electricity and water services with exceptional availability, reliability, efficiency, and sustainability. These initiatives enhance DEWA's agility, resilience, and preparedness to meet the rising demand for electricity and water in Dubai.		

Illustration Practice – VI

Practice Head: System Alerts	**Country Name:** Ireland	**Utility Name:** EirGrid
Performance Outlook: During FY 2023, there were only two instances across the entire island when system alerts were triggered, marking a significant improvement from the nine occasions recorded in FY 2021-22.		
Key features of the Practice: Despite tight generation capacity margins throughout FY 2022-23, the margin between supply and demand fell below the standards required to trigger a System Alert on only two occasions across the entire island. One of these alerts was issued by EirGrid for Ireland alone on June 12, 2023, due to the unavailability of conventional generation, wind generation falling below forecasted levels, and demand exceeding forecasts. This alert was successfully managed without any interruption to electricity consumers. Frequent collaborations with Transmission System Operators (TSOs) in Great Britain and Europe on mutual support agreements through interconnections played a crucial role in maintaining the system's stability, preventing Alert and Emergency states during periods of low wind generation in the winter months of FY 2022-23.		

Illustration Practice – VII

Practice Head: Customer Satisfaction	**Country Name:** Canada (Mississauga)	**Utility Name:** Alectra Utilities
Performance Outlook: In 2023, Alectra achieved a score of 94% for overall customer satisfaction, which was 4% higher than the provincial average.		
Key features of the Practice: Simul Corporation conducted a UtilityPulse survey on Alectra's behalf in November 2022. The data and feedback from the survey were incorporated into Alectra's planning processes, ensuring that Alectra's practices evolve to meet customers' needs and expectations. 90% of customers agree that Alectra provides consistent, reliable energy, which is 5% higher than the provincial average. 87% of customers agree that Alectra quickly handles outages and restores power, which is 5% higher than the provincial average. In addition, 86% of customers agree that Alectra is a trusted and trustworthy company, which is 6% higher than the provincial average.		

Domestic Best Practices:

Indian DISCOMs have made considerable progress in upgrading their practices and systems to enhance service levels. Notable initiatives such as increasing adoption of digital and advanced technologies, upgrades to infrastructure quality and specifications, consumer-friendly billing practices, faster response times, better grievance handling, and ongoing innovation are already being implemented across select DISCOMs in India. Both state-owned and private DISCOMs, serving a diverse range of consumers, have adopted commendable practices.

The growing focus on meeting consumer needs reflects a global trend, positioning Indian DISCOMs to further elevate service quality and align with changing consumer expectations, as reinforced by the introduction of the Rights of Consumers Rules 2020 (and amendments thereof). As the electricity distribution industry progresses, the examples provided below serve as important benchmarks for other Indian DISCOMs, offering a roadmap for ongoing enhancement and long-term customer satisfaction.

Illustration Practice - I

Practice Head: 1. Operational Reliability 2. Connection and Other Services	**State Name:** Gujarat	**Utility Name:** Dakshin Gujarat Vij Company Limited (DGVCL)
Performance Outlook: DGVCL has implemented a CPC (Centralized Processing Center) for centralized processing of all kinds of applications to facilitate applicants for New/Existing electricity connection. DGVCL has also taken steps to modernize the network for improving quality and reliability of power supply.		
Key features of the Practice: 1. DGVCL is using Advance technology like underground cable, RMU (Ring Main Unit), CSS (Compact Substation), CTC (Compact Transformer Cubical), HTMC (HT Metering Cubicle) for removal of overhead network and conventional transformer center structure, for improving power availability & reliability, and reducing faults & interruptions 2. DGVCL is operating In-House Transformer Repairing Units which was First of its kind among all the discoms of GUVNL. It has repaired 8869 transformers and saved Rs. 4.23 Cr. The In-house repairing units takes responsibility of repairing the failed transformer within 10 days. It has decreased repair time and costs while enhancing the reliability and availability of distribution transformers (DT). 3. All applications submitted via the online portal are processed by the CPC. CPC will check the documents and then transfer the service request to concerned sub-division for further process. It has reduced the delay in "Document verification" and "Issuing of the Test report to the consumer".		

Illustration Practice-II

Practice Head: Customer Service	**State Name:** UT of J&K	**Utility Name:** Jammu Power Distribution Corporation Limited (JPDCL)
Performance Outlook: JPDCL operates a 24/7 customer care center, serving 1.2 million customers. In FY 2023-24, the center successfully resolved over 50,000 complaints. It systematically collects feedback through the Rapid Assessment System (RAS) by conducting surveys and analyses to continually enhance service quality based on customer input.		
Key features of the Practice: Main functions of customer care centre are- 1. Expeditious response to outages: Swiftly addressing power failures and restoring service 2. Efficient complaint resolution: Implementing effective systems to handle customer grievances and resolve issues in a timely manner 3. Transparent communication: Informing customers about planned outages, maintenance schedules, and service updates through various channels like phone, WhatsApp, and X (formally known as Twitter). It also provides information about new initiative of the Government towards Clean Energy like PM-Surya Ghar Yojna etc. 4. Continuous support: Maintaining round-the-clock customer service to address emergencies and urgent inquiries.		

Illustration Practice-III

Practice Head: Metering, Billing and Collection	**State Name:** Odisha	**Utility Name:** TP Western Odisha Distribution Limited (TPWODL)
Performance Outlook: To enhance digital knowledge and literacy, TPWODL is running campaigns across all its authorized operational areas and placing Digital Services Stickers at consumer premises to encourage the payment of energy bills through digital methods. Additionally, TPWODL has introduced Optical Character Recognition-based Meter Reading to ensure error-free billing in these areas.		
Key features of the Practice: 1. TPWODL Customer Service team took the initiative to paste a sticker containing "TPWODL Digital Services" on consumer premises where the consumer can clearly see it, such as on the wall or close to the meter. By scanning the QR code on the applied sticker, the consumer can pay their electricity bill instantly online and download or register the My Tata Power Consumer App. This promotes the digital payment by providing some rebate also on digital payment. This sticker has been prepared in both English and Odia language for ease of understanding of all consumers and contains details of Customer Touch Points (Toll-Free No, Email ID, WhatsApp No, Website). 2. Optical Character Recognition (OCR) technology revolutionizes the process of meter reading by automatically capturing parameters from diverse meter types. This advanced AI tool seamlessly integrates analog and digital systems, enabling real-time data capture without manual intervention. By eliminating the potential for intentional manipulation by meter readers, OCR significantly reduces consumer complaints and enhances customer satisfaction. This innovation not only improves accuracy and efficiency but also fosters trust and transparency between utility providers and their customers.		

Illustration Practice-IV

Practice Head: 1. Connection and other services 2. Metering, Billing and Collection	**State Name:** Punjab	**Utility Name:** Punjab State Power Corporation Ltd (PSPCL)
Performance Outlook: PSPCL has introduced an integrated web portal and mobile application designed to significantly enhance consumer convenience. This unified platform empowers consumers to easily monitor their energy consumption, pay bills, submit grievances, and track the status of their complaints, among other services. By streamlining these processes into a single, user-friendly interface, PSPCL aims to improve customer experience, offering seamless access to essential services from any device.		
Key features of the Practice: 1. PSPCL has developed a comprehensive web portal and mobile application, available on both Android and iOS platforms, to elevate consumer services and enhance user convenience. This digital solution offers a host of features, including the ability to download and pay bills online, use load and LDHF calculators, and access current tariff information. Additionally, consumers can easily register their mobile numbers and email addresses with their accounts, ensuring they stay informed and connected. By integrating these functionalities into a single platform, PSPCL aims to deliver a seamless, efficient, and user-friendly experience for all its consumers. 2. The Prepaid and Smart Meter Mobile App provides consumers with a dashboard to conveniently check details such as live meter data, voltage levels, and energy consumption.		

Illustration Practice-V

Practice Head: 1. Operational Reliability 2. Metering	**State Name:** Delhi	**Utility Name:** BSES Yamuna Power Limited (BYPL)
Performance Outlook: BYPL has implemented a comprehensive set of measures aimed at minimizing feeder interruptions to improve the operational resilience of its power distribution network, ensuring fewer disruptions and a more reliable power supply for all customers. BYPL has streamlined the meter replacement process to be completed in 1 day to ensure faster and more efficient delivery of services to its consumers.		
Key features of the Practice: 1. BYPL has taken various initiatives such as regular partial discharge measurements, Insulation of all Bare Terminals, Installation of RMU & Transformer Boots, thermographic inspections of substations, Regular Protection System Checks and Regular Tree Trimming to minimize the feeder interruptions. These proactive steps address the key issues related to switchgear, overhead lines, substations, and other network components to improve overall system performance and reduce disruptions. 2. BYPL has established a detailed timeline for the entire meter replacement process, starting from the receipt of meter fault information and order generation to the installation and system update. This comprehensive process is designed to be completed within one day of receiving the faulty meter information. By streamlining these steps, BYPL has significantly reduced the average time required for replacing defective meters, thereby enhancing operational efficiency and boosting customer satisfaction.		

Illustration Practice-VI

Practice Head: Billing	**State Name:** Odisha	**Utility Name:** TP Southern Odisha Distribution Limited (TPSODL)
Performance Outlook: The number of consumers receiving actual billing increased from 14.4 Lakh in March 2022 to 19.03 Lakh in March 2024, marking a 32% growth over two years. Additionally, there was a 49% reduction in the average man-hours required, showcasing significant improvements in efficiency.		
Key features of the Practice: Improvement of Single-Phase Consumers Actual Based Billing through Site Verification Web Application. Key processes followed to improve actual billing are: • Identification and Replacement of meters installed at heights • Identification & replacement of Obstacle cases • Correction of Meter number mismatch cases • Correction of Manual punching error while reading • Resolution of No Meter Cases		

Illustration Practice-VII

Practice Head: 1. Operational Reliability 2. Connection and Other Services	**State Name:** Kerala	**Utility Name:** Kerala State Electricity Board Limited (KSEBL)
Performance Outlook: KSEBL is adopting hot line or non-disruptive maintenance techniques to conduct planned maintenance on distribution network components. In fiscal year 2023-24, KSEBL provided a total of 18,637 Below Poverty Line (BPL) connections, utilizing ₹21.4 crore from its own funds.		
Key features of the Practice: 1. KSEBL initiated a pilot program implementing hot line or non-disruptive maintenance procedures in selected Electrical Sections across four representative areas of the state. This approach allows for planned maintenance of distribution network components without interrupting power supply to connected consumers, resulting in reduced interruption times. Encouraged by the pilot's success, KSEBL plans to expand this initiative significantly to enhance the reliability of electricity supply. 2. KSEBL is offering service connections to Below Poverty Line (BPL) households with a maximum connected load of 1kW, including wooden poles with support posts or post insertion and up to 250 meters of overhead lines, funded entirely by KSEBL. Additionally, KSEBL completed the electrification of 35 areas where grid extension was feasible using its resources. Moreover, KSEBL provided free electricity connections to 574 Anganwadi centers, investing ₹22.16 lakh from its own funds during the year.		

Illustration Practice-VIII

Practice Head: 1. Metering, Billing and Collection 2. Operational Reliability	**State Name:** Meghalaya	**Utility Name:** Meghalaya Power Distribution Corporation Limited (MePDCL)
Performance Outlook: MePDCL has installed a total of 95,421 smart meters across the state up to March 2024, covering nearly one-fifth of the in-service consumers. Additionally, it has also installed smart check meters for 82 high-value consumers, including commercial and industrial consumers with a connected load of 50 kW or above. MePDCL has installed 324 numbers of Fault Passage Indicators (FPIs) across the Western Zone (Garo Hills) in 33kV and 11kV line lines, which has reduced the power interruption duration.		
Key features of the Practice: 1. Automated Meter Reading (AMR) eliminates the need for manual meter reading, reducing labor costs and human errors, it also ensures precise billing based on actual consumption rather than estimates hence improving billing efficiency. 2. When a fault occurs, the FPI typically provides a visual signal as flashing LEDs. This immediate indication helps utility personnel in quickly identifying the affected segment. FPIs enable faster response times, reduce downtime, and aid in the efficient repair and restoration of service, which results in less interruption time and longer supply hours.		

Illustration Practice-IX

Practice Head: 1. Operational Reliability	**State/Country Name:** Karnataka, India	**Utility Name:** Bangalore Electricity Supply Company Limited (BESCOM)
Performance Outlook: BESCOM has established a first of its kind, an Underground Distribution Transformer Centre, in the Malleshwaram Ward of Bengaluru city to safeguard equipment from storms and variation in ambient temperature there by improving the reliability of the power system and increases life span of the vital electrical equipment. BESCOM has not received a single power outage complaint from the consumers after charging this system, it has improved the reliability of the power supply, safety and reduced maintenance.		
Key features of the Practice: BESCOM has taken up the project for converting all the HT overhead lines to underground in a phased manner in Bengaluru city. The underground system has advantages such as safety, reliability as well as good aesthetics. A pilot project for establishment of underground distribution transformer centre comprising of 500 KVA Distribution Transformer & 8 Way Solid State Ring Main Unit(RMU) has been implemented. This system is integrated with DAS (Distribution Automation Centre) Control Centre where all the switching operation can be carried out remotely. The electrical parameters and switching status of the system as well UG temperature, humidity, water level, fire alarm, entry door Open/Close status are continuously monitored from the DAS Centre. This system will prevent accidents caused due to electrocution and transformer blasts since the transformer and associated control system is concealed underground. The whole system is protected from temperature changes and adverse weather conditions. Hence this system is more efficient, Safe and reliable.		

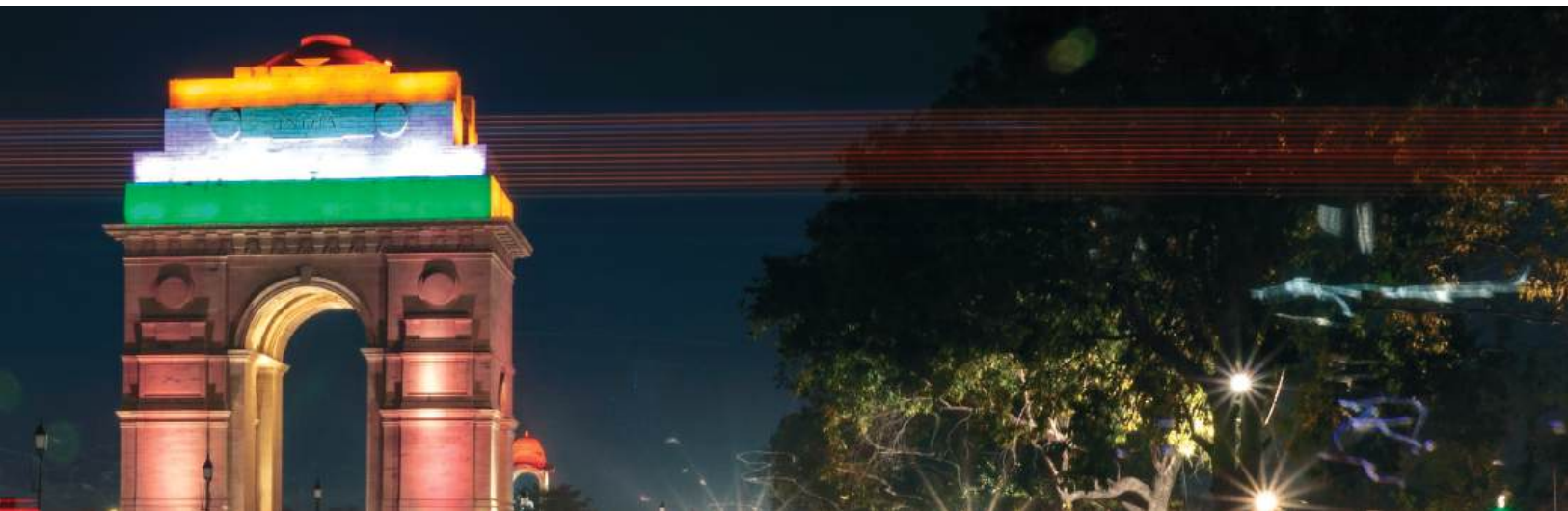


Illustration Practice-X

Practice Head: Fault Rectification & Grievance Redressal	**State:** Maharashtra, India	**Utility Name:** Tata Power Mumbai Distribution
Performance Outlook: The implementation of Condition-Based Maintenance (CBM) activities, including thermo-scanning, ultrasonic detection, and SAP-based preventive maintenance, has led to a reduction in consumer complaints and equipment failures. Consequently, the number of technical complaints per 1,000 consumers decreased from 5.78 to 5.10, and equipment failures were reduced from 4 to 3.		
Key features of the Practice: • LT Breaker Auto Temperature monitoring and control along with remote alarm. • Using Thermax Temperature indicator strips to record max temperature in LT switchgear. • Dehumidified installed in HV switchgear to avoid condensation on switchgear leading to flashover. • Silicon painting applied on Transformer Bushings, HV Breakers to eliminate Tracking. • Retrofitting of Mineral Oil filled TRF with Natural/Ester Oil TRF to enhance usage life of equipment. • Thermal imaging of installations in Meter room. • Revisiting and revising frequency of RM of equipment as per OEM inputs / CFT observations. • BOLA (Better Operations and Life by Analytics) installed in TRF and LV switchgear to monitor Real Time Temperature and Humidity. • Value Added Services like KYEC (Know your energy consumption) for consumers.		

Some of the practices adopted by the Indian DISCOMs are noteworthy and at par with some of the best performing global utilities. Despite these advancements, there remains a need for further improvement to fully meet the mandated service standards.

Note: The above-mentioned practices are selective, based on limited research and interactions done with a few Indian DISCOMs for the purpose of including some aspects of domestic best practices in this report.

Diwali: Celebrating the triumph of good over evil and light over darkness, this festival illuminates homes and hearts with the glow of countless lamps and dazzling fireworks. The joyous occasion symbolizes prosperity and renewal, uniting communities through shared traditions, festive feasts, and acts of devotion that mark new beginnings

Durga Puja, West Bengal: A grand festival celebrating goddess Durga's triumph over the demon Mahishasura. It emphasizes female power, community togetherness, and cultural heritage. The Dhunuchi Dance, a traditional performance with clay incense pots, is a highlight, adding a spirited touch to the celebrations.

5

WAY FORWARD

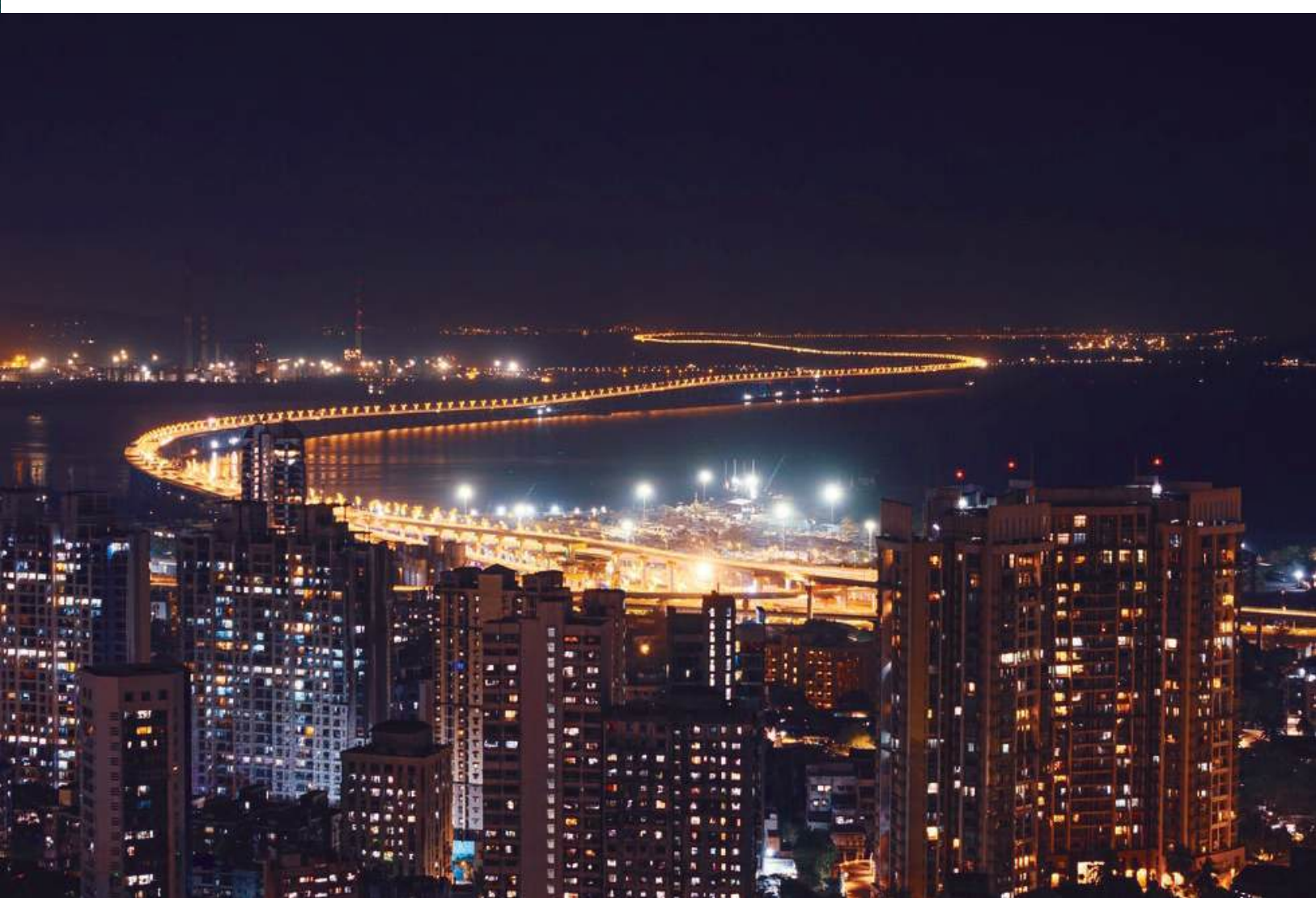
The Consumer Service Rating of DISCOMs (CSRD) report has been pivotal in assessing the performance of DISCOMs regarding consumer services, highlighting their strengths and weaknesses as well as Identifying the areas of improvement. It aims to create a culture of transparency, accountability and consumer-oriented approach in the power distribution sector. The parameters considered for assessment in the report have provided DISCOMs with a holistic view of their standing as a service provider in comparison to their peers. The first three editions of the report were able to garner attention of all the key stakeholders and most importantly the DISCOMs, who have taken progressive measures in improving their performance.

Similarly, the fourth edition of this report is intended to have incremental impact and further nudge the DISCOMs in improving upon all the service parameters. Some of the DISCOMs have exhibited advancement across various service parameters in comparison to preceding editions of the CSRD report. However, there are still some DISCOMs that need to introspect their operational practices for improvement.

As the power distribution landscape continues to evolve, it is imperative for DISCOMs to adapt and enhance their service delivery to meet rising consumer expectations. Considering the above, changes and enhancements in the methodology and parameter coverage is envisaged for subsequent editions of the report to make it more comprehensive, robust and relevant. Some of the probable interventions may be as follows:

- Restructuring of existing parameters to accommodate the diversity in topography and consumer profiles across regions.
- Introduction of new key/sub parameters to address emerging trends such as digitalization, electric vehicle charging infrastructure etc.
- Alignment of the report with current national and state-level power sector reforms to ensure that DISCOMs are evaluated against the latest policies and regulation.
- Strengthen the data collection, validation and confirmation process by adopting standardized formats and leveraging online platforms.
- Facilitate more inter-DISCOM interactions through workshops, webinars, and conferences to share best practices and foster a culture of continuous improvement and learning.
- Encourage DISCOMs to adopt consumer-centric innovations that enhance service delivery and customer satisfaction. This includes leveraging technology for better fault rectification, grievance redressal, and service reliability.
- Interacting with key stakeholders, including policymakers, investors, and consumers, to gather diverse perspectives and insights that can strengthen the report's development.

The CSRD report has already established its significance in power distribution sector reforms, and we are committed to further refining it to provide a more robust evaluation of DISCOM and drive meaningful improvements in the power distribution sector.



Maha Kumbh, Prayagraj: A massive religious gathering held once every 12 years, where pilgrims take a holy dip in sacred rivers. Naga Sadhus, holy men known for their strict lifestyle and giving up worldly possessions, appear with ash-covered bodies. Their participation adds a unique and revered aspect to the festival

6

APPROACH TO CSRD

The Consumer Service Rating of DISCOMs (CSRD) initiative aims to comprehensively evaluate the current performance of DISCOMs based on key consumer service parameters. This exercise follows a systematic approach in identifying and selecting performance metrics that significantly affect electricity consumers and their satisfaction levels. While some of these metrics are closely monitored by DISCOMs, the majority are often overlooked and are not monitored and tracked. This report focuses on those parameters that have a greater impact on consumers rather than on the operations and finances of the DISCOMs.

The overall design of the approach involved outlining the key tasks to be undertaken by various stakeholders in this exercise. The rating process involves planning, parameter identification, data collection, verification, validation, & confirmation and involves multiple stakeholders across state & central level. The rating is being done as per a predefined grading scale to bring out adequate distinction amongst the participating DISCOMs.

The scoring methodology as approved by the Ministry of Power (MoP) for the first edition of the CSRD FY 2020-21 exercise was adopted for the subsequent two editions, FY 2021-22 and FY 2022-23 and has been retained for the CSRD FY 2023-24 edition.

KEY CHALLENGES ENVISAGED DURING PLANNING

As this was envisaged to be a comprehensive exercise involving multiple stakeholders, numerous challenges were expected across the formulation stage:

01 Designing an inclusive and comprehensive framework and detailing all the dependent of the exercise.

02 Identification of optimum set of relevant parameters among the exhaustive list of performance parameters for the DISCOMs.

03 Finalizing the rating methodology including the rating scale.

04 Conveying the need of this exercise and addressing the apprehensions of the participating DISCOMs.

05 Designing a platform for data collection and verification for ~750 data points per DISCOM.

06 Providing training to all DISCOMs and briefing them on the data submission processes, including the corresponding evidence documents.

07 Ensuring Timely response from DISCOMs.

08 Potential treatment of likely data aberrations, gaps in evidence.

CSRD PARAMETERS

01 Operational Reliability

- 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

02 Connection & Other Services

- 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 Metering, Billing & Collection

- 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.

04 Fault Rectification & Grievance Redressal

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

DATA COLLECTION METHODOLOGY

The data collection for CSRD FY2023-24 was conducted via the Revamped Distribution Sector Scheme (RDSS) portal, an online IT-enabled system designed to facilitate the monitoring of other key ongoing initiatives under RDSS.

To enhance the authenticity of the data provided by DISCOMs and reduce the likelihood of manual errors during data entry and document uploading, a tri-layered structure was implemented at the DISCOMs' end, consisting of: (1) DISCOM Data Enterer (DDE), (2) DISCOM Data Reviewer (DDR), and (3) DISCOM Data Approver (DDA). The portal's architecture aimed to provide a more systematic and organized visualization of parameters and the alignment of corresponding documents, significantly reducing the time and effort required for data authentication and validation.

To ensure that this exercise could be conducted in a timely and effective manner, all regional offices (ROs) of REC Limited were activated during the data collection phase and instructed to coordinate with the designated nodal officers of the respective DISCOMs. Additionally, numerous one-on-one interactions, video conferences were held with DISCOM officials to achieve the set objectives.

MARKING METHODOLOGY

After identifying and selecting the key performance parameters and sub-parameters, the complexities were handled in assigning appropriate weightage to each parameter based on its perceived criticality and impact on consumer perception. Consequently, a thoughtful weightage was assigned to the four broad parameters, with the cumulative weightages totaling 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 obtained from the DISCOMs was verified at multiple level based on data checking of individual parameter, data triangulation & analytics and evidence submitted by DISCOMs.

DISCOMs were asked to submit evidence like (i) system generated reports (ii) regulatory filings- mandatory to submit wherever applicable (iii) SERC/JERC regulations/orders (iv) manually filled data- signed and stamped by Chairman/MD/ED/ Director/Competent authority.

- **Validation against evidence:** Data received from DISCOMs have been cross-checked and verified against the submitted evidence.
- **Validation through trail check:** Detailed breakdown of the aggregate data (such as Hours of Supply, Interruption Index, Avg. time taken for replacing defective meters) submitted by DISCOMs, were collected to verify its accuracy. For reliability and quality of supply parameters, a system-based measurement approach was followed, and the National Power Portal (NPP) was also referenced to validate the figures.
- **Finalization of sub-parameters values:** Due to the deviations observed during the verification process across multiple sources within a DISCOM, the final values for Hours of Supply and Interruption Index were determined using a detailed methodology.

GRADING METHODOLOGY

Both absolute and relative marking approaches were adopted, with most of the sub-parameters evaluated on an absolute scale to enable comparison across years. However, for instances where benchmarking data was unavailable, a relative scale was used.

Accordingly, the score range was segregated across 7 segments for Grading of DISCOMs:

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 FACED DURING CSRD EXERCISE

Collection

- Delay in data submission by DISCOMs on the online portal
- Frequent data updates, corrections, and amendments by DISCOMs

Verification

- Submission of incomplete data by DISCOMs
- Limited availability of system-generated evidence for the submitted data, submission of unsigned manual data

Validation

- Designing a methodology/ assumption to address the gaps in data submitted by DISCOMs

Confirmation

- Delayed feedback/ confirmation from DISCOMs for data gaps and subsequent dataa

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			

Eid (Eid al-Fitr): Eid marks the end of Ramadan, a month of fasting, reflection, and prayer. It celebrates the completion of this spiritual journey, emphasizing gratitude, forgiveness, and compassion. It's a day to strengthen bonds, seek forgiveness, and express gratitude for all the blessings in life

Pushkar Fair, Rajasthan: A vibrant, culturally rich annual event featuring camel trading, livestock exhibitions, folk performances like the Ghoomar dance, and religious activities culminating in a holy dip in Pushkar Lake, promoting community bonds and celebrating Rajasthan's heritage

ANNEXURES

ANNEXURE-A

State-level aggregate grades and performance outlook

States/UTs	Total DISCOMs	DISCOMs spread across grades						
		A+	A	B+	B	C+	C	D
Uttar Pradesh	6	1	1	1	3			
Delhi	3	3						
Tamil Nadu	1		1					
Telangana	2		2					
Andhra Pradesh	3		3					
Manipur	1		1					
Maharashtra	4	2		2				
Madhya Pradesh	3		1	2				
Odisha	4		2	2				
Kerala	2			1	1			
Haryana	2			2				
Uttarakhand	1		1					
West Bengal	1			1				
Assam	1		1					
Karnataka	5			3	2			
Gujarat	4		1	3				
Punjab	1			1				
Goa	1			1				
Bihar	2		1	1				
Rajasthan	3				3			
Tripura	1			1				
Chhattisgarh	1				1			
Andaman & Nicobar Islands	1					1		
Puducherry	1				1			
Ladakh	1				1			
Chandigarh	1				1			
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**	**15**	**22**	**14**	**7**	**2**	**0**

ANNEXURE-B

(i) Performance across parameters – Operational Reliability

States/UTs	DISCOM	Hours of Supply			Interruption Index			DT Failure Rate
		Rural	Urban	Industrial	Rural	Urban	Industrial	
Andaman & Nicobar Islands	A&N PD	21.0	22.1	-	72.7	1276.6	-	19.3%
Andhra Pradesh	APEPDCL	23.7	23.9	23.9	47.5	62.6	64.7	1.8%
Andhra Pradesh	APSPDCL	23.7	23.9	23.9	35.9	49.6	5.8	5.4%
Andhra Pradesh	APCPDCL	22.7	24.0	24.0	28.6	25.6	39.3	4.6%
Arunachal Pradesh	Arunachal PD	19.1	22.7	21.6	38.6	110.3	307.9	2.7%
Assam	APDCL	22.6	23.5	23.8	26.8	188.9	25.0	2.3%
Bihar	SBPDCL	21.9	23.6	23.7	324.9	503.4	142.4	8.7%
Bihar	NBPDCL	22.3	23.4	23.6	125.9	342.1	162.6	4.4%
Chandigarh	CED	-	23.0	23.6	-	11.6	8.6	1.8%
Chhattisgarh	CSPDCL	22.1	23.8	23.5	57.3	110.1	97.8	6.4%
Delhi	BRPL	-	24.0	24.0	-	1.9	1.4	0.1%
Delhi	BYPL	-	24.0	-	-	2.8	-	0.6%
Delhi	TPDDL	-	24.0	-	-	1.2	-	0.9%
Goa	Goa PD	22.8	23.7	23.9	32.3	57.6	75.7	1.7%
Gujarat	MGVCL	23.8	23.9	23.9	25.5	18.0	22.1	6.3%
Gujarat	UGVCL	23.9	24.0	24.0	11.7	15.8	11.2	5.4%
Gujarat	DGVCL	23.8	23.9	23.9	21.5	43.0	20.03	4.7%
Gujarat	PGVCL	23.6	23.9	23.8	33.4	41.4	33.2	9.6%
Haryana	UHBVNL	19.9	23.8	23.8	175.5	91.4	58.9	6.9%
Haryana	DHBVNL	20.1	23.5	23.3	5.8	9.0	13.9	7.8%
Himachal Pradesh	HPSEBL	16.9	23.8	23.7	22.7	19.1	6.9	1.1%
Jammu & Kashmir	KPDCL	20.8	21.4	23.3	145.4	581.5	93.8	18.0%
Jammu & Kashmir	JPDCL	18.8	22.1	23.0	158.5	481.0	260.0	27.6%
Jharkhand	JBVNL	20.1	22.5	-	36.5	98.6	-	6.4%
Karnataka	GESCOM	22.7	23.7	24.0	107.7	300.6	53.5	5.4%
Karnataka	MESCOM	21.4	23.7	23.5	172.5	187.6	92.7	10.3%
Karnataka	CESCOM	21.7	23.3	23.5	276.5	257.8	116.6	5.6%
Karnataka	HESCOM	22.3	23.5	23.5	262.8	316.6	179.8	9.4%
Karnataka	BESCOM	22.9	23.9	23.9	126.8	89.2	53.3	5.4%
Kerala	KSEBL	21.9	23.7	24.0	47.5	21.8	93.7	1.6%
Kerela	TCED	-	23.6	-	-	85.9	-	0.5%
Ladakh	Ladakh PDD	22.2	23.7	-	42.2	64.4	-	3.1%
Lakshadweep	Lakshadweep ED	-	24.0	24.0	-	-	-	0.0%

States/UTs	DISCOM	Hours of Supply			Interruption Index			DT Failure Rate
		Rural	Urban	Industrial	Rural	Urban	Industrial	
Madhya Pradesh	MPMKVVCL	22.1	23.6	23.7	22.7	99.5	25.0	11.2%
Madhya Pradesh	MPPaKVVCL	22.3	23.8	23.8	191.6	121.2	120.5	6.1%
Madhya Pradesh	MPPoKVVCL	22.8	23.6	23.7	45.0	193.8	43.9	9.8%
Maharashtra	AEML	-	24.0	-	-	0.12	-	0.2%
Maharashtra	MSEDCL	23.9	23.9	23.8	11.3	8.0	12.1	5.0%
Maharashtra	BEST	-	24.0	-	-	9.1	-	0.3%
Maharashtra	TPCL	-	24.0	-	-	0.5	-	0.7%
Manipur	MSPDCL	22.1	23.9	23.8	43.6	67.5	29.7	0.8%
Meghalaya	MePDCL	21.2	23.2	23.8	29.9	116.7	-	3.9%
Mizoram	Mizoram PD	22.5	23.2	23.4	44.8	107.2	168.0	10.1%
Nagaland	Nagaland PD	18.1	22.0	-	0.8	3.0	-	8.8%
Odisha	TPCODL	22.6	23.7	24.0	94.1	136.9	132.9	2.9%
Odisha	TPWODL	22.2	23.5	23.4	33.5	41.1	54.8	4.1%
Odisha	TPNODL	22.2	23.7	23.8	162.9	303.4	115.5	4.4%
Odisha	TPSODL	21.5	23.6	-	39.6	27.1	-	2.5%
Puducherry	PED	22.1	23.8	-	17.1	82.9	-	1.8%
Punjab	PSPCL	22.1	23.7	23.8	17.5	60.3	9.8	5.6%
Rajasthan	JdVVNL	22.4	24.0	23.9	6.4	11.7	9.0	11.3%
Rajasthan	JVVNL	21.5	23.2	22.6	278.9	235.3	255.9	51.0%
Rajasthan	AVVNL	20.8	23.5	22.5	5.6	21.5	33.9	18.2%
Sikkim	Sikkim PD	20.0	22.2	22.6	22.2	35.9	26.6	4.3%
Tamil Nadu	TNPDCL	22.7	24.0	24.0	2.0	6.4	3.6	2.2%
Telangana	TGSPDCL	22.8	24.0	24.0	8.0	29.2	7.4	6.0%
Telangana	TGNPDCL	22.8	23.9	24.0	6.6	60.1	2.0	6.3%
Tripura	TSECL	22.2	23.7	23.9	9.7	22.3	71.6	5.4%
Uttar Pradesh	NPCL	20.4	24.0	23.9	25.5	16.6	29.7	1.2%
Uttar Pradesh	PuVVNL	19.3	22.2	23.6	56.6	179.3	4.9	4.8%
Uttar Pradesh	DVVNL	18.8	23.8	23.9	137.4	132.0	56.2	4.5%
Uttar Pradesh	MVVNL	17.8	23.6	23.8	212.1	155.2	50.3	10.4%
Uttar Pradesh	PVVNL	15.3	23.7	23.7	124.5	143.7	188.5	3.9%
Uttar Pradesh	KESCO	-	23.5	23.5	-	120.2	32.6	3.4%
Uttarakhand	UPCL	22.0	23.4	23.4	167.9	148.9	69.7	5.0%
West Bengal	WBSEDCL	22.6	23.8	23.8	80.0	72.9	92.6	7.4%
National Average		**21.57**	**23.53**	**23.64**	**77.88**	**126.72**	**70.90**	**6.4%**

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

ANNEXURE-B

(ii) Performance across parameters – Connection and Other Services

States/UTs	DISCOM	Alignment of Regulations with industry best practices w.r.t timelines	(A) Presence of predeter-mined demand charges for up to 150kW	Applications processed through online portal (submission till approval)	Average deviation from SoP in time taken for providing connection	No. of Prosumers per Lakh consumers
Andaman & Nicobar Islands	A&N PD	3	No	67%	-51%	3
Andhra Pradesh	APEPDCL	5	No	100%	-79%	71
Andhra Pradesh	APSPDCL	5	No	100%	-75%	47
Andhra Pradesh	APCPDCL	5	No	100%	-52%	552
Arunachal Pradesh	Arunachal PD	7	No	80%	-80%	0
Assam	APDCL	7	No	100%	8%	13
Bihar	SBPDCL	4	No	100%	7%	72
Bihar	NBPDCL	4	No	100%	-2%	17
Chandigarh	CED	5	No	100%	-58%	1708
Chhattisgarh	CSPDCL	6	No	100%	-73%	20
Delhi	BRPL	7	Yes	100%	-66%	168
Delhi	BYPL	7	Yes	100%	-69%	71
Delhi	TPDDL	5	Yes	100%	-60%	126
Goa	Goa PD	4	No	100%	-43%	208
Gujarat	MGVCL	4	No	100%	-68%	4421
Gujarat	UGVCL	5	No	100%	-48%	2205
Gujarat	DGVCL	6	No	100%	-84%	3848
Gujarat	PGVCL	4	No	100%	-38%	3098
Haryana	UHBVNL	6	No	100%	-48%	506
Haryana	DHBVNL	6	No	100%	-54%	464
Himachal Pradesh	HPSEBL	6	No	100%	-31%	94
Jammu & Kashmir	KPDCL	6	No	41%	-69%	126
Jammu & Kashmir	JPDCL	4	No	3%	-69%	190
Jharkhand	JBVNL	6	No	100%	281%	14
Karnataka	GESCOM	7	Yes	100%	-80%	13
Karnataka	MESCOM	7	Yes	100%	-31%	130
Karnataka	CESCOM	7	Yes	100%	-15%	81
Karnataka	HESCOM	5	Yes	100%	83%	56
Karnataka	BESCOM	7	Yes	100%	-77%	27
Kerala	KSEBL	4	No	100%	-74%	930
Kerela	TCED	5	No	0%	-86%	1721
Ladakh	Ladakh PDD	7	No	0%	-80%	0
Lakshadweep	Lakshadweep ED	6	No	0%	-87%	0

States/UTs	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	No. of Prosumers per Lakh consumers
Madhya Pradesh	MPMKVVCL	7	No	100%	-70%	103
Madhya Pradesh	MPPaKVVCL	7	No	100%	-77%	318
Madhya Pradesh	MPPoKVVCL	7	No	100%	-62%	87
Maharashtra	AEML	7	Yes	100%	-84%	1222
Maharashtra	MSEDCL	6	Yes	100%	-23%	436
Maharashtra	BEST	5	Yes	100%	-4%	50
Maharashtra	TPCL	7	Yes	100%	-78%	73
Manipur	MSPDCL	6	No	100%	-53%	226
Meghalaya	MePDCL	6	No	98%	-62%	0
Mizoram	Mizoram PD	4	No	76%	-31%	24
Nagaland	Nagaland PD	2	No	0%	5%	7
Odisha	TPCODL	4	No	100%	-32%	48
Odisha	TPWODL	7	No	100%	-49%	24
Odisha	TPNODL	5	No	100%	-42%	12
Odisha	TPSODL	5	No	100%	-55%	15
Puducherry	PED	4	No	100%	-28%	155
Punjab	PSPCL	7	No	64%	5%	510
Rajasthan	JdVVNL	7	No	39%	267%	402
Rajasthan	JVVNL	7	No	82%	15%	516
Rajasthan	AVVNL	7	No	100%	7%	348
Sikkim	Sikkim PD	4	No	0%	-44%	19
Tamil Nadu	TNPDCL	6	Yes	100%	-68%	138
Telangana	TGSPDCL	5	No	100%	-79%	199
Telangana	TGNPDCL	5	No	100%	-79%	74
Tripura	TSECL	4	No	65%	-37%	5
Uttar Pradesh	NPCL	6	No	100%	-54%	274
Uttar Pradesh	PuVVNL	5	No	100%	-27%	48
Uttar Pradesh	DVVNL	6	Yes	97%	-47%	67
Uttar Pradesh	MVVNL	6	No	100%	-22%	184
Uttar Pradesh	PVVNL	5	No	100%	-45%	44
Uttar Pradesh	KESCO	6	No	100%	-9%	295
Uttarakhand	UPCL	6	No	100%	-78%	454
West Bengal	WBSEDCL	5	Yes	100%	-60%	13
National Average		**6**	**-**	**86.53%**	**-37%**	**414.95**

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

ANNEXURE-B

(iii) Performance across parameters – Metering Billing and Connection

States/UTs	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	Pre-paid consumers	Tariff categories (incl. sub-categories and slabs)	Number of consumers paying digitally
Andaman & Nicobar Islands	A&N PD	7	12.5	83%	8%	91%	100%	49%	0%	33	3%
Andhra Pradesh	APEPDCL	3	2.2	96%	92%	100%	98%	97%	0%	49	52%
Andhra Pradesh	APSPDCL	7	5.5	88%	88%	100%	100%	95%	0%	49	53%
Andhra Pradesh	APCPDCL	9	8.4	100%	98%	100%	99%	100%	0%	49	53%
Arunachal Pradesh	Arunachal PD	5	3.6	-	-	100%	50%	58%	10%	32	3%
Assam	APDCL	36	41.3	80%	77%	97%	100%	93%	15%	41	46%
Bihar	SBPDCL	6	6.4	72%	84%	95%	100%	94%	33%	35	46%
Bihar	NBPDCL	162	139.7	82%	72%	100%	88%	99%	16%	34	55%
Chandigarh	CED	-	13.6	95%	20%	0%	99%	25%	0%	20	40%
Chhattisgarh	CSPDCL	12	15.8	76%	0%	100%	99%	66%	0%	112	36%
Delhi	BRPL	-	1.3	99%	100%	100%	100%	100%	1%	24	89%
Delhi	BYPL	-	1.9	99%	100%	100%	100%	99%	1%	24	89%
Delhi	TPDDL	-	2.7	99%	99%	94%	100%	100%	0%	24	92%
Goa	Goa PD	6	6.5	88%	0%	96%	97%	64%	0%	42	66%
Gujarat	MGVCL	23	23.3	100%	0%	0%	96%	84%	0%	23	34%
Gujarat	UGVCL	39	34.5	95%	5%	0%	100%	87%	0%	63	35%
Gujarat	DGVCL	32	26.1	95%	0%	0%	100%	93%	0%	52	41%
Gujarat	PGVCL	67	46.6	94%	0%	2%	99%	85%	0%	70	23%
Haryana	UHBVNL	5	4.4	95%	99%	29%	97%	99%	0%	22	52%
Haryana	DHBVNL	8	7.5	93%	84%	3%	91%	86%	1%	40	59%
Himachal Pradesh	HPSEBL	26	10.9	98%	6%	96%	100%	100%	0%	38	23%
Jammu & Kashmir	KPDCL	3	3.8	36%	14%	100%	97%	27%	10%	48	35%
Jammu & Kashmir	JPDCL	7	6.0	68%	13%	100%	99%	20%	0%	56	24%
Jharkhand	JBVNL	227	207.0	73%	0%	100%	76%	86%	0%	17	7%
Karnataka	GESCOM	1	0.5	100%	0%	99%	100%	89%	0%	56	4%
Karnataka	MESCOM	10	6.6	94%	0%	100%	100%	84%	0%	67	32%
Karnataka	CESCOM	13	9.9	99%	1%	90%	100%	100%	1%	51	12%
Karnataka	HESCOM	114	-	100%	100%	100%	96%	86%	0%	74	5%
Karnataka	BESCOM	3	1.0	100%	0%	100%	100%	36%	1%	57	34%
Kerala	KSEBL	58	55.2	96%	0%	1%	99%	99%	0%	37	69%
Kerela	TCED	-	6.5	99%	0%	3%	98%	62%	0%	7	54%
Ladakh	Ladakh PDD	5	3.0	100%	0%	100%	73%	58%	0%	77	40%
Lakshadweep	Lakshadweep ED	-	5.4	100%	0%	0%	100%	100%	0%	24	40%

States/UTs	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	Pre-paid consumers	Tariff categories (incl. sub-categories and slabs)	Number of consumers paying digitally
Madhya Pradesh	MPMKVVCL	3	1.4	71%	1%	99%	100%	97%	2%	40	90%
Madhya Pradesh	MPPaKVVCL	2	3.4	96%	9%	99%	100%	98%	2%	42	48%
Madhya Pradesh	MPPoKVVCL	11	11.5	62%	1%	100%	100%	100%	4%	40	40%
Maharashtra	AEML	-	0.8	100%	100%	100%	100%	100%	0%	21	87%
Maharashtra	MSEDCL	276	185.1	87%	4%	100%	100%	95%	0%	46	43%
Maharashtra	BEST	-	74.4	98%	0%	100%	100%	89%	0%	22	50%
Maharashtra	TPCL	-	0.1	100%	100%	100%	100%	92%	15%	22	86%
Manipur	MSPDCL	10	10.2	96%	95%	100%	90%	79%	87%	34	36%
Meghalaya	MePDCL	8	6.6	91%	18%	83%	100%	100%	2%	21	50%
Mizoram	Mizoram PD	15	5.0	100%	0%	100%	100%	62%	0%	14	23%
Nagaland	Nagaland PD	15	8.0	60%	0%	80%	100%	0%	8%	22	2%
Odisha	TPCODL	15	10.6	93%	61%	99%	100%	83%	2%	46	18%
Odisha	TPWODL	3	1.0	84%	66%	90%	100%	89%	0%	71	11%
Odisha	TPNODL	3	1.6	92%	90%	96%	99%	94%	4%	47	18%
Odisha	TPSODL	52	47.5	88%	47%	93%	100%	75%	1%	47	14%
Puducherry	PED	15	15.0	96%	7%	100%	100%	34%	0%	43	22%
Punjab	PSPCL	48	42.9	99%	5%	4%	99%	63%	48%	44	63%
Rajasthan	JdVVNL	34	25.9	87%	3%	11%	97%	89%	0%	65	31%
Rajasthan	JVVNL	59	35.6	100%	11%	47%	99%	96%	0%	61	74%
Rajasthan	AVVNL	18	14.6	93%	2%	8%	99%	94%	0%	66	21%
Sikkim	Sikkim PD	2	1.1	100%	0%	100%	100%	0%	21%	29	10%
Tamil Nadu	TNPDCL	60	59.9	98%	97%	0%	100%	100%	0%	31	70%
Telangana	TGSPDCL	3	3.5	97%	90%	100%	100%	98%	0%	81	51%
Telangana	TGNPDCL	2	1.2	100%	100%	100%	100%	80%	0%	83	32%
Tripura	TSECL	11	4.5	79%	0%	95%	89%	100%	16%	35	13%
Uttar Pradesh	NPCL	3	2.5	97%	93%	100%	100%	100%	26%	93	96%
Uttar Pradesh	PuVVNL	7	3.4	97%	8%	100%	89%	100%	0%	102	13%
Uttar Pradesh	DVVNL	3	1.7	96%	26%	100%	99%	100%	5%	55	32%
Uttar Pradesh	MVVNL	6	6.4	92%	16%	100%	97%	100%	1%	149	17%
Uttar Pradesh	PVVNL	6	2.2	91%	51%	100%	97%	100%	1%	148	29%
Uttar Pradesh	KESCO	-	3.9	100%	90%	100%	82%	100%	22%	148	41%
Uttarakhand	UPCL	22	20.5	94%	68%	35%	98%	82%	1%	56	37%
West Bengal	WBSEDCL	86	75.5	93%	0%	0%	100%	96%	0%	134	68%
National Average		**30.2**	**21.6**	**91%**	**37%**	**84%**	**97%**	**84%**	**5%**	**52**	**41%**

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

ANNEXURE-B

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

States/UTs	DISCOM	24x7 customer care call center	Facilities	Type of complaints attended	Average call waiting time at the call center	Cons-umers 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	54%	0	4	-	25%	0%	0%	Yes	1
Andhra Pradesh	APEPDCL	100%	8	4	6.1	97%	-73%	-62%	Yes	0
Andhra Pradesh	APSPDCL	100%	8	4	27.9	91%	-41%	-40%	Yes	0
Andhra Pradesh	APCPDCL	100%	8	4	15.5	100%	-67%	-31%	Yes	0
Arunachal Pradesh	Arunachal PD	9%	0	2	25.4	11%	-7%	-4%	Yes	4
Assam	APDCL	100%	6	4	32.1	93%	-67%	28%	Yes	0
Bihar	SBPDCL	100%	7	4	29.3	100%	1%	0%	Yes	0
Bihar	NBPDCL	100%	7	4	29.3	99%	0%	-7%	No	0
Chandigarh	CED	0%	0	0	-	-	-	-	Yes	0
Chhattisgarh	CSPDCL	99%	7	4	11.1	66%	-74%	-65%	Yes	0
Delhi	BRPL	100%	8	4	4.9	100%	-	-99%	Yes	0
Delhi	BYPL	100%	8	4	2.4	99%	-	-67%	Yes	0
Delhi	TPDDL	100%	8	4	5.4	102%	-	-66%	Yes	0
Goa	Goa PD	100%	8	4	11.0	64%	-59%	-26%	Yes	2
Gujarat	MGVCL	100%	8	4	20.3	81%	-33%	117%	Yes	0
Gujarat	UGVCL	100%	7	4	7.5	87%	-73%	-26%	Yes	0
Gujarat	DGVCL	100%	7	4	22.5	100%	-92%	-93%	Yes	0
Gujarat	PGVCL	100%	6	4	5.9	85%	-95%	-95%	Yes	5
Haryana	UHBVNL	99%	8	4	28.2	99%	-91%	-83%	Yes	0
Haryana	DHBVNL	100%	8	4	10.4	87%	-81%	-60%	Yes	1
Himachal Pradesh	HPSEBL	100%	6	4	56.0	5%	-33%	-13%	Yes	0
Jammu & Kashmir	KPDCL	100%	7	4	90.4	27%	-2%	-2%	Yes	8
Jammu & Kashmir	JPDCL	100%	6	4	21.3	0%	-82%	-73%	Yes	1
Jharkhand	JBVNL	86%	8	4	45.1	86%	102%	101%	Yes	0
Karnataka	GESCOM	100%	8	4	3.5	99%	-79%	-93%	Yes	0
Karnataka	MESCOM	100%	1	4	15.0	90%	-91%	-90%	Yes	0
Karnataka	CESCOM	100%	7	4	5.0	100%	-18%	-18%	Yes	0
Karnataka	HESCOM	100%	5	4	7.9	0%	-62%	-28%	Yes	0
Karnataka	BESCOM	100%	5	4	7.3	61%	-81%	-46%	Yes	0
Kerala	KSEBL	100%	8	4	51.8	99%	-18%	-3%	Yes	0
Kerela	TCED	0%	0	0	-	62%	-	-17%	Yes	2
Ladakh	Ladakh PDD	0%	0	4	-	0%	0%	0%	Yes	14
Lakshadweep	Lakshadweep ED	0%	0	0	-	100%	-	-	Yes	4

States/UTs	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	-	97%	90%	-70%	Yes	0
Madhya Pradesh	MPPaKVVCL	100%	7	4	2.0	98%	-80%	-64%	Yes	0
Madhya Pradesh	MPPoKVVCL	100%	8	4	1.7	100%	-31%	-18%	Yes	0
Maharashtra	AEML	100%	8	4	1.0	100%	0%	-88%	Yes	1
Maharashtra	MSEDCL	95%	8	4	16.8	95%	-52%	-75%	Yes	0
Maharashtra	BEST	0%	0	0	-	89%	-	-	Yes	0
Maharashtra	TPCL	100%	8	4	4.3	92%	-	-87%	Yes	0
Manipur	MSPDCL	9%	5	4	-	79%	-74%	-41%	Yes	13
Meghalaya	MePDCL	85%	8	4	51.3	0%	-17%	-33%	Yes	1
Mizoram	Mizoram PD	0%	0	0	-	0%	-	-	Yes	4
Nagaland	Nagaland PD	0%	0	0	-	0%	-	-	Yes	1
Odisha	TPCODL	100%	8	4	7.0	83%	-72%	-78%	Yes	0
Odisha	TPWODL	100%	8	4	29.2	78%	-51%	-68%	Yes	0
Odisha	TPNODL	98%	8	4	18.2	94%	-40%	-31%	Yes	0
Odisha	TPSODL	100%	7	4	38.8	75%	108%	549%	Yes	0
Puducherry	PED	100%	0	4	-	49%	-	-	Yes	0
Punjab	PSPCL	100%	8	4	19.6	100%	-28%	20%	Yes	1
Rajasthan	JdVVNL	100%	8	4	18.6	91%	-8%	-50%	Yes	0
Rajasthan	JVVNL	95%	8	4	32.8	0%	12%	1%	Yes	0
Rajasthan	AVVNL	100%	7	4	2.7	93%	-86%	-69%	Yes	5
Sikkim	Sikkim PD	0%	0	0	-	0%	-	-	Yes	5
Tamil Nadu	TNPDCL	100%	6	4	17.1	100%	-56%	-50%	Yes	0
Telangana	TGSPDCL	100%	7	4	23.8	98%	-63%	-50%	Yes	0
Telangana	TGNPDCL	100%	7	4	28.7	100%	-30%	-27%	Yes	0
Tripura	TSECL	99%	6	4	14.8	0%	-17%	-18%	Yes	3
Uttar Pradesh	NPCL	100%	8	4	0.2	100%	-41%	-47%	Yes	2
Uttar Pradesh	PuVVNL	100%	8	4	13.8	100%	1184%	238%	Yes	0
Uttar Pradesh	DVVNL	100%	8	4	11.1	100%	-75%	-83%	Yes	1
Uttar Pradesh	MVVNL	100%	8	4	9.1	100%	-66%	-71%	Yes	0
Uttar Pradesh	PVVNL	100%	8	4	9.3	100%	-38%	-17%	Yes	0
Uttar Pradesh	KESCO	100%	8	4	15.6	100%	-	-18%	Yes	1
Uttarakhand	UPCL	100%	8	4	18.0	82%	0%	-3%	Yes	0
West Bengal	WBSEDCL	100%	7	4	69.0	96%	-67%	-46%	Yes	0
National Average		**84%**	**6.05**	**3.55**	**19.86**	**73%**	**-15%**	**-23%**	**-**	**1**

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

ANNEXURE-C

Category specific consumer coverage

States/UTs	DISCOM	Total Consumers (in lakh)	Rural-Urban Ratio		Category-specific consumer coverage				
			Rural	Urban	Domestic	Non-Domestic / Commercial	Industrial	Agricultural	Others
Andaman & Nicobar Islands	A&N PD	1.52	56%	44%	84%	14%	0%	0%	2%
Andhra Pradesh	APEPDCL	70.56	65%	35%	84%	9%	0%	4%	2%
Andhra Pradesh	APSPDCL	70.87	55%	45%	73%	8%	1%	16%	2%
Andhra Pradesh	APCPDCL	51.31	56%	44%	80%	9%	0%	9%	1%
Arunachal Pradesh	Arunachal PD	2.99	42%	58%	83%	15%	0%	0%	2%
Assam	APDCL	67.21	85%	15%	92%	5%	0%	1%	2%
Bihar	SBPDCL	65.56	71%	29%	85%	9%	1%	5%	1%
Bihar	NBPDCL	111.73	86%	14%	90%	7%	1%	2%	1%
Chandigarh	CED	2.35	0%	100%	86%	12%	1%	0%	1%
Chhattisgarh	CSPDCL	63.01	69%	31%	80%	7%	1%	12%	1%
Delhi	BRPL	30.33	0%	100%	88%	12%	0%	0%	0%
Delhi	BYPL	19.37	0%	100%	78%	21%	0%	0%	0%
Delhi	TPDDL	19.92	0%	100%	85%	13%	1%	0%	0%
Goa	Goa PD	7.04	64%	36%	80%	16%	1%	2%	1%
Gujarat	MGVCL	35.37	55%	45%	81%	12%	0%	6%	1%
Gujarat	UGVCL	41.60	75%	25%	76%	10%	2%	11%	2%
Gujarat	DGVCL	36.80	49%	51%	78%	12%	3%	6%	1%
Gujarat	PGVCL	59.25	57%	43%	67%	11%	2%	19%	1%
Haryana	UHBVNL	32.57	56%	44%	78%	11%	1%	10%	0%
Haryana	DHBVNL	38.40	55%	45%	87%	11%	2%	0%	0%
Himachal Pradesh	HPSEBL	28.11	80%	20%	83%	13%	1%	2%	1%
Jammu & Kashmir	KPDCL	11.38	61%	39%	83%	15%	1%	0%	1%
Jammu & Kashmir	JPDCL	11.61	69%	31%	85%	10%	1%	2%	1%
Jharkhand	JBVNL	47.32	74%	26%	92%	6%	0%	2%	0%
Karnataka	GESCOM	36.38	65%	35%	74%	9%	2%	12%	3%
Karnataka	MESCOM	26.70	67%	33%	71%	9%	1%	15%	3%
Karnataka	CESCOM	37.46	63%	37%	73%	8%	1%	13%	4%
Karnataka	HESCOM	53.14	70%	30%	65%	8%	3%	19%	5%
Karnataka	BESCOM	115.55	39%	61%	78%	10%	2%	8%	2%
Kerala	KSEBL	137.38	79%	21%	76%	19%	1%	4%	1%
Kerela	TCED	0.42	0%	100%	54%	44%	1%	0%	1%
Ladakh	Ladakh PDD	0.70	68%	32%	83%	15%	1%	0%	1%
Lakshadweep	Lakshadweep ED	0.27	0%	100%	77%	20%	1%	0%	1%

States/UTs	DISCOM	Total Consumers (in lakh)	Rural-Urban Ratio		Category-specific consumer coverage				
			Rural	Urban	Domestic	Non-Domestic / Commercial	Industrial	Agricultural	Others
Madhya Pradesh	MPMKVVCL	50.23	61%	39%	73%	7%	1%	19%	0%
Madhya Pradesh	MPPaKVVCL	59.65	65%	35%	67%	8%	1%	23%	1%
Madhya Pradesh	MPPoKVVCL	66.12	72%	28%	74%	7%	1%	18%	0%
Maharashtra	AEML	26.12	0%	100%	82%	17%	1%	0%	0%
Maharashtra	MSEDCL	298.65	52%	48%	74%	7%	1%	16%	1%
Maharashtra	BEST	10.34	0%	100%	74%	25%	1%	0%	0%
Maharashtra	TPCL	7.65	0%	100%	94%	5%	1%	0%	0%
Manipur	MSPDCL	5.20	64%	36%	94%	6%	0%	0%	0%
Meghalaya	MePDCL	6.84	68%	32%	94%	5%	0%	0%	1%
Mizoram	Mizoram PD	2.90	39%	61%	92%	8%	0%	0%	0%
Nagaland	Nagaland PD	3.21	45%	55%	91%	6%	1%	0%	2%
Odisha	TPCODL	28.33	80%	20%	91%	7%	0%	1%	1%
Odisha	TPWODL	21.77	81%	19%	89%	5%	0%	4%	1%
Odisha	TPNODL	19.98	85%	15%	91%	6%	0%	1%	1%
Odisha	TPSODL	22.79	83%	17%	92%	5%	0%	1%	1%
Puducherry	PED	4.60	41%	59%	84%	13%	1%	2%	0%
Punjab	PSPCL	105.67	64%	36%	73%	12%	2%	13%	0%
Rajasthan	JdVVNL	47.66	71%	29%	81%	8%	1%	10%	0%
Rajasthan	JVVNL	53.99	59%	41%	77%	9%	2%	11%	0%
Rajasthan	AVVNL	57.87	77%	23%	80%	7%	1%	11%	1%
Sikkim	Sikkim PD	1.30	77%	23%	87%	10%	1%	0%	2%
Tamil Nadu	TNPDCL	333.99	53%	47%	71%	11%	2%	7%	8%
Telangana	TGSPDCL	102.59	43%	57%	74%	11%	0%	13%	1%
Telangana	TGNPDCL	58.11	53%	47%	67%	8%	0%	22%	2%
Tripura	TSECL	9.95	48%	52%	87%	9%	1%	1%	2%
Uttar Pradesh	NPCL	1.49	15%	85%	91%	4%	3%	1%	1%
Uttar Pradesh	PuVVNL	102.96	84%	16%	89%	5%	0%	4%	2%
Uttar Pradesh	DVVNL	66.05	72%	28%	87%	6%	1%	5%	2%
Uttar Pradesh	MVVNL	94.14	66%	34%	90%	6%	0%	3%	0%
Uttar Pradesh	PVVNL	73.93	59%	41%	84%	8%	1%	7%	1%
Uttar Pradesh	KESCO	7.13	0%	100%	83%	13%	2%	0%	2%
Uttarakhand	UPCL	26.45	69%	31%	87%	10%	1%	2%	1%
West Bengal	WBSEDCL	227.08	81%	19%	88%	10%	1%	2%	0%
Total Consumers (in lakh)		**3338.90**							

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) • Agricultural and 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 mins to be neglected	Data to be submitted by DISCOMs along with supporting documents. REC/REC ROs to validate the data basis FMS and/or evidence documents[1] shared by DISCOMs
Feeder Interruption Index *(7 Marks)*	• Interruption index formula = Total No. of interruptions for all feeders in a category in a year/ Avg no. of feeders in a category • Feeders at 11kV voltage level will be included • Only unscheduled outages included • Interruptions of less than 5 minutes to be neglected	Data to be submitted by DISCOMs along with supporting documents. REC/REC ROs to validate the data basis FMS and/or evidence documents shared by DISCOMs
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 all voltage levels (excluding agricultural DTs) to be considered for assessment	Data to be submitted by DISCOMs along with supporting documents. REC/REC ROs to validate the data basis FMS and/or evidence documents shared by DISCOMs

[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 regulations with industry best practices w.r.t timelines *(Negative 2 Marks for non-alignment)*	• Alignment of regulation (SoP/supply code) with industry best practices with respect to timelines 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 – 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
Predetermined demand charges for connections up to 150kW *(Negative 1 Marks for non-alignment)*	• Whether regulations provide for having predetermined demand charges for new connections up to 150kW	Copy of regulations notified by the regulatory commission
Applications processed through online portal *(2 Marks)*	• Number of applications of 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	Data to be submitted by DISCOM along with supporting documents. REC/REC ROs to validate the data basis evidence documents shared by 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, as specified in regulations, 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 DISCOM along with supporting documents. REC/REC ROs to validate the data basis evidence documents shared by 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. REC/REC ROs to validate the data basis evidence documents shared by DISCOMs
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 DISCOM along with supporting documents. REC/REC ROs to validate the data basis evidence documents shared by 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. REC/REC ROs to validate the data basis evidence documents shared by 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, OCR, etc.) vis-à-vis total bills generated shall be calculated	Data to be submitted by DISCOM along with supporting documents. REC/REC ROs to validate the data basis evidence documents shared by DISCOMs

Parameter	Description & Measurement Method	Data Source
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. REC/REC ROs to validate the data basis evidence documents shared by DISCOMs
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 DISCOM along with supporting documents. REC/REC ROs to validate the data basis evidence documents shared by DISCOMs
Consumers receiving billing updates on mobile *(3 Marks)*	• Percentage of consumers receiving bills on mobile • Would be measured as (Total no. of Consumers provisioned to receive billing alerts/Total no. of consumers)	Data to be submitted by DISCOMs along with supporting documents. REC/REC ROs to validate the data basis evidence documents shared by DISCOMs
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. REC/REC ROs to validate the data basis evidence documents shared by DISCOMs
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. REC/REC ROs to validate the data basis evidence documents shared by DISCOMs
Number of bills paid digitally *(6 Marks)*	• Percentage of bills paid through digital channels (net-banking, credit/debit cards, UPI, payment wallets, etc.) vis-à-vis total number of bills generated – Prepaid consumers making payments digitally to be included in calculation of the percentage	Data to be submitted by DISCOM along with supporting documents. REC/REC ROs to validate the data basis evidence documents shared by DISCOMs

Parameter	Description & Measurement Method	Data Source
Fault Rectification and Grievance Redressal *(10 Marks)*		
24x7 customer care call center with common code '1912' *(2 Marks)*	• Coverage will be calculated as a % of consumers covered by the Toll Free 24x7 Call Center, 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 – 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. REC/REC ROs to validate the data basis evidence documents shared by DISCOMs
Average customer call waiting time *(1 Mark)*	• Average wait time (in seconds) for consumers (on 24x7 consumer care call center helpline) while calling for registration of complaints (from call connection to initiation of conversation with consumer care representative)	Data to be submitted by DISCOM along with supporting documents. REC/REC ROs to validate the data basis evidence documents shared by DISCOMs
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 DISCOM along with supporting documents. REC/REC ROs to validate the data basis evidence documents shared by DISCOMs
Deviation from specified time for complaints resolution through call center *(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. REC/REC ROs 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/JERC or not? • Whether adequate number of Consumer Grievance Redressal Forums (CGRF) have been established. Calculated as number of CGRFs per 1,00,000 consumers.	Data to be submitted by DISCOM along with supporting documents. REC/REC ROs to validate the data basis evidence documents shared by DISCOMs

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 new 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

Parameter	Unit	Marks	Scoring
No. of Prosumers (under net or gross metering)	per lakh consumers	1	• Highest % *(Full marks)* • Lowest % *(No Marks)* • Remaining *(Proportionate Marks)*
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 RFMS / NPP Data Set		Final Value for HoS/Interruptions Index
Scenario I	For all the months	Weighted Average (RFMS- 60% & CSRD- 40%)
Scenario II	Few months (Value for missing Month= (CSRD of respective month) *(1 – Deviation[a]))	Weighted Average (RFMS- 60% & CSRD- 40%)
Scenario III	No Month (Value for missing Month= (CSRD of respective month) *(1 – NAD[b]))	Weighted Average (RFMS- 60% & CSRD- 40%)

1. Avg RFMS – Average RFMS figures for all the months for which RFMS data is available.

2. Avg NPP – Average NPP figures for all the months for which NPP data is available.

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

4. RFMS – Rural Feeder Monitoring System

5. NPP – National Power Portal

[a]Deviation %: (Avg CSRD – Avg RFMS) / (Avg CSRD)

Note:

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

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

[b]NAD (National Average Deviation) %: (Avg CSRD – Avg RFMS) / (Avg CSRD)

Note:

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

ii. Avg RFMS: 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 RFMS / UFMS 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. **Aggregate 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 =** 100* (Total Nos. of prepaid consumers/ Total Nos. of Consumers)

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
DCSR	DISCOM Consumer Services Rating
DDUGJY	Deendayal Upadhyaya Gram Jyoti Yojana
DEWA	Dubai Electricity & Water Authority
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
IRES	India Residential Energy Survey
ISA	International Solar Alliance
IT/OT	Information Technology / Operational Technology
KPI	Key Performance Indicators
KV	Kilo Volt
kW	Kilo Watt

Acronyms	Full Form
LCT	Low-Carbon Technology
LT	Low Tension
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
PwC	Pricewaterhouse Coopers
RAPDRP	Restructured Accelerated Power Development and Reforms Programme
RDSS	Revamped Distribution Sector Scheme
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
TSO	Transmission System Operators
UDAY	Ujjwal DISCOM Assurance Yojana
USD	United States dollar
UTs	Union Territories
w.r.t	With Respect To

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

Acronyms of Indian DISCOMs

Acronyms	Full Form
A&N PD	Electricity Department, UT of Andaman & Nicobar
AEML	Adani Electricity Mumbai Limited
APCPDCL	Andhra Pradesh Central Power Distribution Corporation Limited
Arunachal PD	Department of Power, Arunachal Pradesh
APDCL	Assam Power Distribution Company Limited
APEPDCL	Eastern Power Distribution Company of Andhra Pradesh Limited
APSPDCL	Southern Power Distribution Company of Andhra Pradesh Limited
AVVNL	Ajmer Vidyut Vitran Nigam Limited
BESCOM	Bangalore Electricity Supply Company Limited
BEST	Brihmanmumbai Electric Supply and Transport Undertaking
BRPL	BSES Rajdhani Power Limited
BYPL	BSES Yamuna Power Limited
CESC	Calcutta Electric Supply Corporation Limited
CESCOM	Chamundeshwari Electricity Supply Corporation Limited
CED	Electricity Wing of Engineering Department, Chandigarh Administration
CSPDCL	Chhattisgarh State Power Distribution Company Limited
DGVCL	Dakshin Gujarat Vij Company Limited
DHBVNL	Dakshin Haryana Bijli Vitran Nigam Limited
DNHDDPDCL	Dadra & Nagar Haveli and Daman & Diu Power Distribution Corporation Limited
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 Limited
JVVNL	Jaipur Vidyut Vitran Nigam Limited
KESCO	Kanpur Electricity Supply Company Limited
KPDCL	Kashmir Power Distribution Corporation Limited
KSEBL	Kerala State Electricity Board Limited
Lakshadweep ED	Electricity Department, UT of Lakshadweep
Ladakh PDD	Ladakh Power Development Department

Acronyms	Full Form
MePDCL	Meghalaya Power Distribution Corporation Limited
MESCOM	Mangalore Electricity Supply Company Limited
MGVCL	Madhya Gujarat Vij Company Limited
Mizoram PD	Power & Electricity Department, Government of Mizoram
MPMKVVCL	Madhya Pradesh Madhya Kshetra Vidyut Vitran Company Limited
MPPaKVVCL	Madhya Pradesh Paschim Kshetra Vidyut Vitran Company Limited
MPPoKVVCL	Madhya Pradesh Poorv Kshetra Vidyut Vitran Company Limited
MSEDCL	Maharashtra State Electricity Distribution Company Limited
MSPDCL	Manipur State Power Distribution Company Limited
MVVNL	Madhyanchal Vidyut Vitran Nigam Limited
NBPDCL	North Bihar Power Distribution Company Limited
NPCL	Noida Power Company Limited
Nagaland PD	Department of Power, Government of Nagaland
PED	Electricity Department, Government of Puducherry
PFC	Power Finance Corporation Limited
PGVCL	Paschim Gujarat Vij Company Limited
PSPCL	Punjab State Power Corporation Limited
PVVNL	Paschimanchal Vidyut Vitran Nigam Limited
PuVVNL	Purvanchal Vidyut Vitran Nigam Limited
SBPDCL	South Bihar Power Distribution Company Limited
Sikkim PD	Power Department, Government of Sikkim
TCED	Thrissur Corporation Electricity Department
TNPDCL	Tamil Nadu Power Distribution Corporation Limited
TPCL	Tata Power Company Limited
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 Limited
TGSPDCL	Southern Power Distribution Company of Telangana Limited
UGVCL	Uttar Gujarat Vij Company Limited
UHBVNL	Uttar Haryana Bijli Vitran Nigam Limited
UPCL	Uttarakhand Power Corporation Limited
WBSEDCL	West Bengal State Electricity Distribution Company Limited

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