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Government of India



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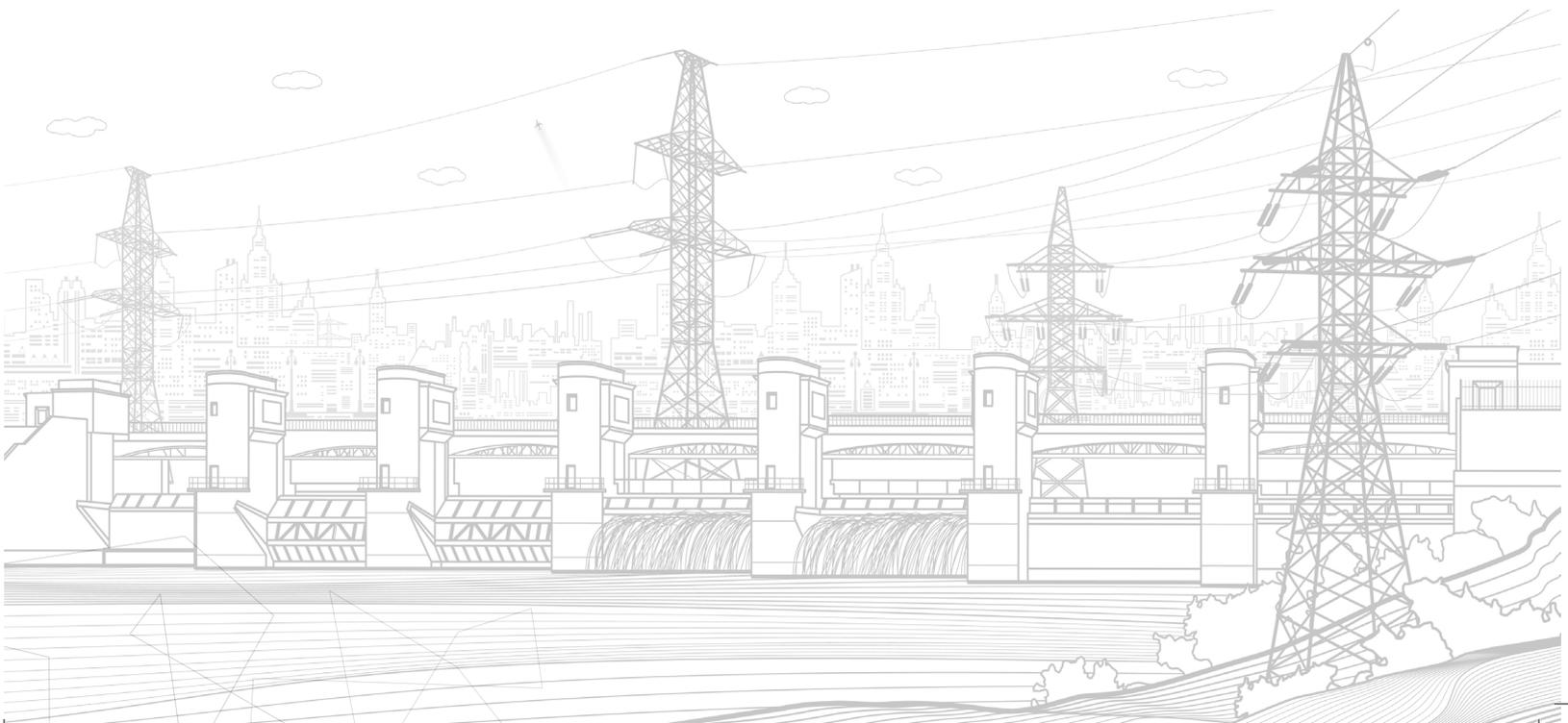
# Annual Integrated Rating & Ranking: Power Distribution Utilities

(April 2023)



# 11<sup>th</sup> Annual Integrated Rating and Ranking of Power Distribution Utilities

April 2023





आर. के. सिंह  
R. K. SINGH



विद्युत मंत्री एवं  
नवीन और नवीकरणीय ऊर्जा मंत्री  
भारत सरकार  
Minister of Power and  
Minister of New & Renewable Energy  
Government of India



### MESSAGE

The power sector in India has seen a transformational growth in the last few years on various fronts such as generation and transmission capacities, improvement in distribution sector and energy efficiency. The Ministry of Power, Government of India aims to ensure 24x7 reliable energy access and simultaneously, accelerate energy transition by shifting to cleaner and renewable energy sources.

India has made tremendous progress on the renewable energy front. India had pledged in NDC in COP 21 in Paris that it will have 40 percent of its power generation capacity by non-fossil resources by 2030. We achieved this target in 2021 – nine years in advance. Renewable energy has already become cheaper than traditional energy in India, due to more than 220% rise in renewable capacity added across India over last 9 years, which has enabled economies of scale in the segment.

There is a strong push from the Govt. of India (GoI) towards the shift for renewable energy resources. A project outlay of INR 19,500 crores was approved for implementation of Productivity Linked Incentive (PLI) Scheme under Tranche II on 'National programme on High Efficiency Solar PV Modules'. This project aims at achieving manufacturing capacity of GW scale in High Efficiency solar PV modules. This scheme is in turn expected to bring direct investment of INR 94,000 crores. Government of India have approved the National Green Hydrogen Mission, which aims to make India a hub for green hydrogen and its derivatives; with a target to bring in INR ~ 8 lakh crore investments by 2030. This will help India in becoming energy independent and in Decarbonisation of major sectors of the economy.

The whole country has been connected to one grid. It is possible to transmit almost 112 GW from one part of the country to the other. It is planned to increase the transfer capacity to 1.50 lakh MW by 2030. We have added nearly 1.6 lakh circuit kilometres lines to our transmission capacity. Today India has more than 4.64 lakh circuit kilometers of power transmission lines, compared to about 2.8 lakh circuit kilometres in 2014.

Contd...2

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The distribution sector has also been strengthened with an outlay of more than Rs. 2 lakh crores over the last 8 years. The strengthening of the distribution system has substantially increased power availability to 22.5 hours in rural areas and approximately 23.5 hours in urban areas.

We have also achieved universal household electricity access. Under the Deen Dayal Upadhyaya Gram Jyoti Yojana, 18,500 villages and lakhs of hamlets were electrified, 1.28 crore households were given access to electricity. A total of about 2.86 crore households have been electrified under SAUBHAGYA scheme.

All these achievements have been possible because of focused initiatives to capitalize on India's potential and address the key challenges faced by entities in the power sector. Power distribution is a decisive driver of the power sector's health, and the Government of India is committed to turn it around in a similar way.

We have taken major steps towards promoting greater financial prudence in the sector and tackling some of its long-standing challenges. The Revamped Distribution Sector Scheme (RDSS) was launched in July 2021 to facilitate a reforms-oriented and results-based financial support structure to modernize the power distribution in India and reduce losses in the sector. National Smart Grid Mission continues to accelerate installation of smart meters.

FY 2021 was a challenging year for the power distribution sector because of COVID, given significant challenges in customer billing & collections, and unforeseen decrease in power demand during the multiple COVID waves and associated lockdowns. The Government supported the sector during the difficult period through liquidity infusion under Aatma Nirbhar Bharat Abhiyan.

The sustained efforts by Gol through RDSS Scheme and other reform initiatives has helped the distribution sector to bounce back strongly in FY 2022 to record tremendous progress on many key indicators. AT&C losses, which capture the operational efficiency of power distribution entities, have improved to 17% in FY2022, a reduction of ~8% since 2015. Similarly, the cash-adjusted ACS-ARR Gap which captures financial losses in the sector, has reduced by more than 50% from FY 2020 to FY 2022.

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Late Payment Surcharge (LPS) Rules were notified in June 2022 to tackle the mounting payables of power distribution entities to Gencos and Transcos. The rules provide the mechanism for settlement of outstanding dues as well as provisions to encourage distribution utilities to make timely bill payments. Energy accounting and audit was made mandatory in Oct 2021 for all power distribution utilities to identify area of power theft, losses, thereby enabling them to take focused steps for improving their billing efficiency.

Tariff Subsidy by the State Governments form a significant part of the revenue of the distribution utilities. However, due to enforcement of RDSS and LPS schemes and Integrated Ratings, State Governments are now required to release cash towards subsidies booked by the state distribution utilities. For the first time in FY22, aggregate Subsidy disbursement by State Governments has crossed 100% of subsidy booked and system wide subsidy arrears have decreased by ~15%.

Additionally, Integrated Ratings have been linked to lending terms offered by state lenders in the sector, thus reinforcing these ratings as the fundamental performance barometer in the sector. Through these initiatives, we are on track to bring down the AT&C losses to 12-15%, ACS-ARR gap to zero and subsidy arrears to zero by 2025.

The 11th Integrated Rating continues with the comprehensive review undertaken during 10th Integrated Ratings. The stakeholders would be able to directly compare performance between FY 2021 and FY 2022 through interactive digital dashboard, urjadrishti.com. It will provide users with the results of the integrated rating exercises and rich sector analysis. Further, the ratings are dynamic and will be revised for individual Discoms if there are important updates during the year.

I congratulate PFC & REC for completing this important annual exercise well in time. The stakeholders will find this report and dashboard immensely helpful in understanding the distribution sector's strengths and challenges, and in fostering further performance improvement. I am certain that with the help of this rating exercise, RDSS, LPS and other government measures, we will succeed in achieving a complete turnaround of the entire power distribution sector.

  
(R. K. Singh)

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कृष्ण पाल गुर्जर  
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सत्यमेव जयते



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दिनांक: 06 अप्रैल, 2023

### संदेश

भारत निकट भविष्य में विश्व की सबसे बड़ी अर्थव्यवस्थाओं में अपना स्थान बनाने की दिशा में तेजी से अग्रसर है, जिसके लिए तीव्र गति से हो रहा औद्योगीकरण और शहरीकरण अवश्यभावी है। अर्थव्यवस्था की इस प्रगति में बिजली क्षेत्र की महत्वपूर्ण भूमिका है। पिछले कुछ वर्षों में देश के बिजली क्षेत्र ने कई उपलब्धियां हासिल की हैं। बिजली की पहुंच अब हर जगह है। साथ ही बिजली की उपलब्धता में भी सराहनीय वृद्धि हुई है। इसका श्रेय बिजली उत्पादन की स्थापित क्षमता में त्वरित वृद्धि और राष्ट्रीय ग्रिड को मजबूत करने की दिशा में किये गए प्रयासों को जाता है। हमने अपनी स्थापित बिजली क्षमता में गैर-जीवाश्म ईंधन की हिस्सेदारी के संदर्भ में भी अपने लक्ष्यों में बहुत अच्छा प्रदर्शन किया है।

जैसा कि विदित है, इन प्रयासों से बिजली उत्पादन और पारेषण क्षेत्र में अमान परिवर्तन हुआ है, साथ ही, बिजली वितरण क्षेत्र में भी इन सुधारों के परिणाम मिले हैं – उदाहरण के लिए, 2015 के बाद से AT&C हानियों में लगभग 7% की कमी आई है – लेकिन अभी भी इस क्षेत्र में बहुत कुछ किए जाने की आवश्यकता है। आज भी बिजली वितरण प्रणाली, बिजली क्षेत्र की आपूर्ति श्रृंखला की सबसे कमजोर कड़ी बना हुआ है। संचालन और बुनियादी ढांचे की कमियों के कारण अधिकांश बिजली वितरण कंपनियों को बड़ा नुकसान हो रहा है। जिसके कारण विद्युत क्षेत्र की उत्पादन और पारेषण कंपनियों की भारी रकम इन बिजली वितरण कंपनियों पर बकाया है। इन बिजली वितरण कंपनियों के बही खाते में कुल कर्ज काफी हद तक बढ़ गया है और यह पूरे बिजली एवं वित्तीय क्षेत्र के लिए चिंता का विषय है।

इस संदर्भ में, मुझे यह साझा करते हुए खुशी हो रही है कि रीवैम्पड डिस्ट्रीब्यूशन सेक्टर स्कीम (आर.डी.एस.एस.) और एडिशनल प्रुडेंशियल नॉर्म्स जैसी नई पहलों ने बिजली वितरण क्षेत्र में परिवर्तन लाना शुरू कर दिया है। विलंब भुगतान अधिभार और संबंधित मामले नियम (एलपीएस), 2022 के कार्यान्वयन से उत्पादन और पारेषण कंपनियों की बकाया राशि को चुकाने में काफी मदद मिल रही है। इन्हीं प्रयासों से वित्तीय वर्ष 2022 में वितरण क्षेत्र में उल्लेखनीय सुधार हुआ है।

एकीकृत रेटिंग इस क्षेत्र में चल रहे प्रयासों की सफलता को आँकने में काफी मददगार साबित होगी। मुझे खुशी है कि हमने इस बार डिस्कॉम की वास्तविक वित्तीय स्थिति को समझने के उद्देश्य से रेटिंग में कई रणनीतिक बदलाव किए हैं। पहली बार न केवल नकद-समायोजित आकड़े पेश किए गए हैं, बल्कि यह सुनिश्चित करने के लिए मजबूत प्रक्रियाएं भी रखी गई हैं कि रेटिंग की समय-समय पर समीक्षा की जाती रहे और यह हमेशा अद्यतन रहें।

11वीं एकीकृत रेटिंग में हमने 10वीं एकीकृत रेटिंग के प्राधार को अपरिवर्तित रखा है। हमने संपूर्ण क्षेत्र की कवरेज के लिए निजी डिस्कॉम और विद्युत विभागों को भी शामिल किया है। इस कार्य विधि में नया डैशबोर्ड उर्जा दृष्टि डॉट कॉम (urjadrishti.com) विकसित किया गया है जो नवीनतम रेटिंग और स्कोर के साथ अपडेट किया जाएगा। यह पारदर्शिता हमें एक व्यवस्थित तरीके से समस्याओं का समाधान करने में मदद करेगी। साथ ही ऋणदाता भी इस क्षेत्र को अधिक विवेकपूर्ण तरीके से ऋण देने के लिए डिस्कॉम रेटिंग का उपयोग करने में सक्षम होंगे।

11वीं एकीकृत रेटिंग डिस्कॉम नेतृत्व के लिए भी बेहद मूल्यवान सिद्ध होगी। रैंकिंग और रिपोर्ट उनकी समग्र विशिष्टता एवं खामियों के साथ-साथ उन के सामने आने वाली चुनौतियों पर भी प्रकाश डालने में मदद करेगी। यह उन्हें कार्य-निष्पादन में सुधार के लिए क्षेत्रों की पहचान करने में भी मदद करेगी, जिसका उपयोग कार्य-योजनाओं को बनाने और लागू करने के लिए किया जा सकता है। इस रिपोर्ट में उल्लिखित सर्वोत्तम कार्य-प्रणालियाँ हाल के दिनों में प्रमुख भारतीय डिस्कॉमों द्वारा की गई वास्तविक कार्रवाइयों पर आधारित हैं और पूरे भारत में सभी डिस्कॉमों के लिए प्रासंगिक होंगी।

मैं इस महत्वपूर्ण कार्य योजना में शामिल सभी कर्मचारियों को बधाई देता हूँ और बिजली वितरण क्षेत्र के समग्र विकास और प्रगतिशील परिवर्तन लाने के लिए सभी हितधारकों की भागीदारी की आशा करता हूँ।

  
(कृष्ण पाल गुर्जर)

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### Message

India's power sector is playing a key role in India's progress toward sustainable growth. India possesses huge renewable energy potential and is already one of the cheapest producers of renewable power globally. With targeted focus on boosting renewable manufacturing, including solar panels and green hydrogen, India is well poised to become a global leader in green energy in the next few years.

Despite unprecedented growth achieved in the last decade, the biggest challenge for the India's power sector continues to be the restoration of the financial viability of the distribution utilities. The distribution sector is plagued by the legacy issues relating to unsustainable debt, huge outstanding payables to GenCos and TransCos, subsidy arrears, etc. The government has undertaken several initiatives to transform this sector.

One of the flagship initiatives recently undertaken by Central Government has been the launch of the RDSS which intends to improve the operational efficiencies and financial sustainability of all state-owned Discoms / Power Departments by providing conditional financial assistance for strengthening of supply infrastructure. The major focus of RDSS is on loss reduction through development of smart metering infrastructure. It is heartening to note that almost every state has come forward to commit to reforms under the scheme for the turnaround of the discoms. The notification and implementation of the LPS rules, 2022 to reduce payables to Gencos & TransCos is another major intervention by the Ministry of Power. This is expected to enforce payment discipline by the State Governments. Other intervention which address key sectoral challenges include National Smart Grid Mission, mandatory Energy Accounting of DISCOMS etc.

Further, the Ministry had formulated the Integrated Rating Methodology in July 2012 to enable annual assessment of power distribution utilities' performance on a range of parameters. A comprehensive review of the Integrated Rating Methodology was undertaken last year for effecting improvements based on the suggestions received from utilities and other stakeholders and also keeping in view various developments in the sector. The Ratings have been made dynamic to capture any major triggers that might affect discoms' financial performance through the year. An interactive digital dashboard has also been put in place which would allow stakeholders



(discoms, lenders and policy makers) to easily access data on sectoral trends, discom performance, underlying drivers for rating outcomes, etc.

I am sure that the year on year and relative evaluation of utilities based on the information contained in the Rating report and Dashboard would provide rich insights on their performance against various financial and operational parameters and enable management of the utilities to take suitable measures to achieve financial sustainability and higher operational efficiency.

I am happy to note that the latest 11th Annual Integrated Rating and Ranking exercise covering 71 Power Distribution Utilities for the rating period FY 2021-22 has been completed in a timely manner with the active co-operation and support of all the utilities.

These Ratings have created immense impact, with public sector lenders already linking the ratings to their lending rates and other terms. I am sure that 11th Integrated ratings would drive valuable insights into the distribution sector, and I hope to see a further significant improvement in outcomes in the sector in the years to come.



(Alok Kumar)



An aerial night photograph of a city, likely Manila, Philippines, showing a dense urban landscape with numerous high-rise buildings, some with glowing windows and rooftop structures. The city lights create a vibrant, warm glow against the dark blue night sky. The image is used as a background for the report's acknowledgements page.

# Acknowledgements

This report captures the outcomes and insights from the Eleventh (11<sup>th</sup>) Integrated Rating and Ranking Exercise, as per the framework approved by the Ministry of Power, with Power Finance Corporation Limited (PFC) as the nodal agency.

REC Limited provided feedback and inputs on the exercise. The utilities across states were also forthcoming with sharing data and other important inputs during the exercise.

McKinsey & Company Inc. carried out the 11<sup>th</sup> Integrated Rating and Ranking Exercise. McKinsey undertook detailed analysis based on audited and provisional accounts of power distribution utilities, developed sectoral themes and provided suggestions for the 11th Integrated Ratings. Additionally, McKinsey has also developed a dynamic, interactive dashboard for distribution sector ([Urjadrishti.com](http://Urjadrishti.com)). McKinsey was supported by Feedback Infra Private Limited which was subcontracted for data analysis and utility outreach.

The Committee constituted for the 11<sup>th</sup> Integrated Rating Exercise – with Member (E&C), Central Electricity Authority (CEA), Director, National Institute of Public Finance and Policy (NIPFP), Director (Commercial), PFC and Director (Technical), REC – also contributed to the recommendations for the report. The Eleventh (11<sup>th</sup>) Integrated Rating and Ranking of the Power Distribution Utilities has been approved by the Ministry of Power.

Except where otherwise stated, all data in this report is sourced from audited and provisional annual accounts of 69 participating power distribution utilities, tariff and true-up orders issued by various regulatory commissions, RDSS plans, other supporting information submitted by the power distribution utilities for the rating exercise.





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# 01

## Executive summary

The Indian power sector has accomplished remarkable feats over the last few years, from nearly achieving universal electrification, creating a national grid, launching power exchange markets, to turning power surplus. The surging renewable energy capacity will play a critical role in achieving Net Zero by 2070 and help India emerge as a global clean energy hub. Meanwhile, rising investments into the sector, especially in solar energy, green hydrogen and Battery Energy Storage Systems (BESS), promise continued growth.

Despite these wins, the industry is battling significant challenges, particularly in the distribution sector. The power distribution sector is currently facing financial losses, climbing debt and dues to power generators. COVID-19 and resulting lockdowns added to these woes: commercial and institutional power demand dropped as the world began working from home, long lockdowns limited industrial activity, lowering billing and collection efficiency, ultimately adding to financial losses and liquidity crunch.

The government has addressed these issues by launching major reforms including, RDSS (Revamped Distribution Sector Scheme), Late Payment Surcharge Rules 2022, Additional Prudential Norms for lending by financial institutions, National Smart Grid Mission, and mandating energy accounting and auditing. While these programs have reinvigorated the sector, some of the larger legacy issues will need more time and interventions to be resolved.

The Annual Integrated Rating Exercise, carried out under the approval and guidance of the Ministry of Power since 2012 plays an important role in addressing these challenges. It is a transparent, authentic source<sup>1</sup> that allows all stakeholders in the power distribution sector to gauge their performance and take greater ownership of their operations. The ratings provide a blueprint for stakeholders to assess performance, identify gaps, measure impact of steps taken and plan ahead.

This report publishes results and insights from the 11<sup>th</sup> edition of this annual exercise, conducted with the Power Finance Corporation Limited as the nodal agency. It covers 71 power distribution utilities comprising 45 state discoms, 14 private discoms and 12 power departments across India.

<sup>1</sup> Except where otherwise stated, all data in this report is sourced from audited and provisional annual accounts of 69 participating power distribution utilities, tariff and true-up orders issued by various regulatory commissions, RDSS plans, other supporting information submitted by the power distribution utilities or obtained from Ministry of Power and its agencies.

# Key insights from the 11<sup>th</sup> Integrated Rating Exercise

The power distribution sector recorded major improvements across key parameters in FY22, largely helped by the following actions:

- **Government made great efforts to support the sector:** Aggregate subsidy disbursal was higher than the subsidy booked during the year. In addition, Government has taken over discom loans over FY20-FY22, which have also been converted into equity, thus easing their debt obligations.
- **Utilities improved their collection efficiency:** Improved subsidy disbursal by state government as well as better customer collections by discoms helped achieve this. As a result, AT&C losses improved to 16.5 percent in FY22, almost 5 percent lower than FY21 and 3 percent lower than FY20 levels
- **State regulators were more responsive:** 65 out of 71 utilities published new tariffs for FY23, compared to 58 utilities in FY22

However, there remains room for improvement:

- Days payable, while improving from 175 days in FY21 to 163 days in FY22, but can be reduced further
- Subsidy arrears stood at INR 66,000 crore at the end of FY22

## Major trends in the sector

### 1. Financial deficit nearly halved in FY22, compared to FY20, despite an 8 percent increase in gross input energy

- Sectoral absolute cash-adjusted gap (between expenditure and income) dropped substantially to INR 53,000 crore in FY22 from INR 97,000 crore in FY20.
- This was driven by significant improvement in the ACS-ARR gap, which captures the cash-adjusted gap per unit. The power distribution entities were recording a loss of 79 paise per unit energy in FY20, which reduced to only 40 paise per unit energy in FY22.
- State discoms from five states: Rajasthan, Maharashtra, Karnataka, Madhya Pradesh and West Bengal improved their performance the most. Together, their absolute cash-adjusted gap reduced by about INR 43,000 crore over FY20-FY22.
- Twelve utilities – JdVVNL, GESCOM, MePDCL, JVVNL, MESCOM, CHESCOM, AVVNL, MPPoKVVCL, UPCL, BESCOM, Sikkim PD, MPMKVVCL – improved their ACS-ARR (cash-adjusted) gap by more than 1.0 INR / kWh during FY20-FY22.



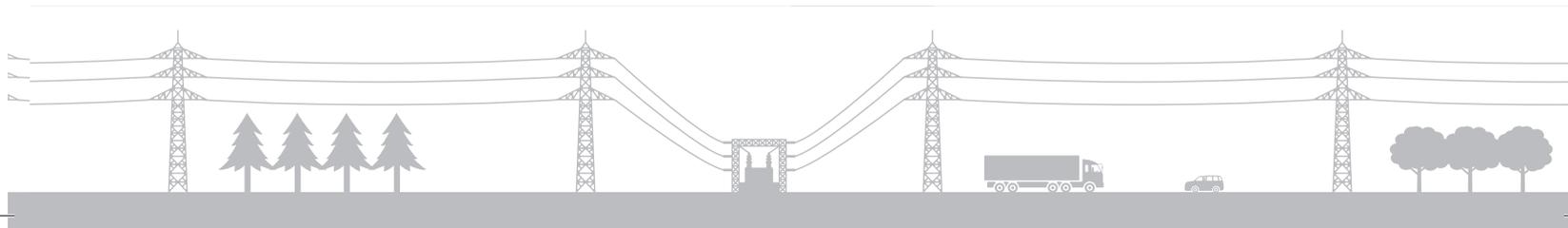
- Improving financial deficit can be further broken down into three trends:
  - **Full Subsidy disbursement** in FY22 by states on aggregate basis, compared to shortfall of INR 23,000 crore in FY21
  - **Shortfall in cash collection** improved from INR 38,000 crore in FY20 to INR 24,000 crore in FY22
  - **Profit Before Tax (accrual)** rose by about INR 8,000 crore between FY20-FY22, helped by an increase in non-tariff subsidy (subsidies provided under various center/state schemes, such as UDAY, AtmaNirbhar Bharat, etc. to support financially weaker discoms)
- Ten states (13 utilities) did not publish tariff orders for FY22 - which impacted FY22 financials. The situation improved with only 6 utilities/ 4 states (BRPL, BYPL, TPDDL (Delhi); JBVNL (Jharkhand); IPCL (West Bengal) and Arunachal PD) not publishing tariff orders for FY23.

## 2. Aggregate subsidy disbursement (including non-tariff subsidy) by state governments crossed 100 percent of all subsidy amounts booked in FY22, compared to 95 percent in FY20 and 85 percent in FY21

- Of the 24 states providing subsidies to respective discoms, 17 disbursed 100 percent or more of the total subsidy booked. Six states showed most improvement in subsidy disbursal: Karnataka, Rajasthan, Madhya Pradesh, Maharashtra, Andhra Pradesh, and Punjab.
- Shortfall in subsidy disbursement by state governments has been contributing to multiple issues in the power distribution sector.
- Tariff subsidy disbursement (intrinsic part of state discoms' revenues) was 109 percent in FY22. States disbursed INR 156,500 crore of tariff subsidy as against INR 143,000 crore of amount booked in FY22, thus clearing some of their past arrears.

## 3. AT&C losses have improved to 16.5 percent in FY22; significantly lower than 19.9 percent in FY20 and 21.5 percent in FY21.

- AT&C losses increased sharply in FY21 driven in part by impact of COVID-19 on both collection and billing efficiency.
- In FY22, AT&C losses improvement was driven by collection efficiency, which rose from 93.1 percent in FY20 to 97.2 percent in FY22. Billing efficiency remained constant at ~86 percent during the same period.
- Further breakdown of the 3 percent improvement in AT&C losses shows that it was driven by both subsidy disbursement by states and customer collections. The latter points to an encouraging trend in the sector, indicating improved customer billing collections by discoms – up from 92.7 percent in FY20 to 96.0 percent in FY22.
- 44 utilities improved their AT&C losses, of which 19 improved by more than 5 percent when compared to FY20 levels. The top improvers (>10 percent AT&C improvement) were TSNPDCL, JdVVNL, SBPDCL, DVVNL, JVVNL, MPMKVVCL, and CHESCOM.
- In case of distribution losses, 33 utilities did not achieve the targets set by respective State Electricity Regulatory Commissions (SERC) in FY22. The government schemes, such as RDSS, aim to improve billing efficiency by way of installation of smart meters and achieving approved trajectories.



There were notable improvements in trade receivables, trade payables and debt in the sector. These legacy challenges were worsened due to COVID-19 impact: receivables rose due to impact on customer billings and payments, payables surged because of significant financial loss and mounting receivables, while debt increased due to a combination of these factors. However, these parameters recovered in FY22.

#### 4. Pace of debt addition slowed down considerably in FY22, DSCR turned positive

- While total sectoral debt rose 24 percent to INR 6.20 lakh crore over FY20-FY22, the pace of debt addition slowed considerably. Debt increased by INR 34,000 crore in FY22, versus INR 85,500 crore in FY21.
- Debt Service Coverage Ratio (DSCR) turned positive in FY22 – improving from -0.07 to 0.43 from FY20 to FY22, driven by a higher cash adjusted EBITDA.
- Discoms in four states: Tamil Nadu, Uttar Pradesh, Rajasthan and Madhya Pradesh, together held 57 percent of the sector's debt.
- Government also infused significant equity in the discoms / taken over discom loans over FY20-FY22, thus easing their debt obligations.
- With improving payables, receivables and subsidy disbursement by states, the working capital condition can be expected to improve further and play its part in reducing additional debt requirements.

#### 5. The sector cleared-off higher payables from FY21, to reach pre-COVID-19 levels

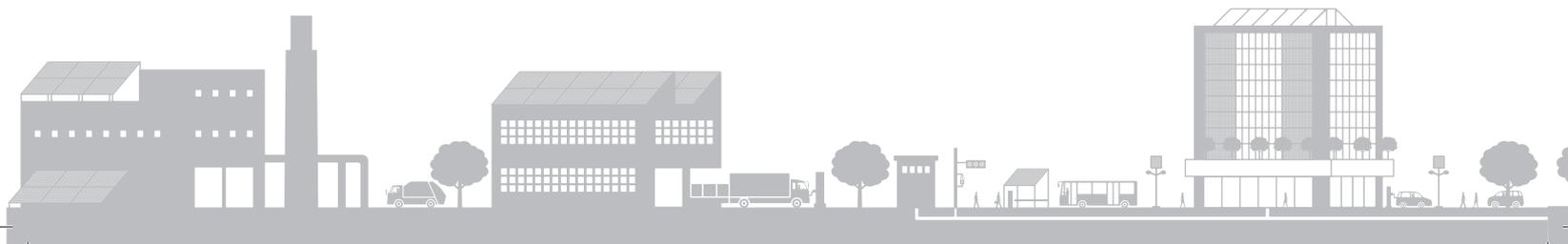
- The days payables returned to pre-COVID-19 levels in FY22, reducing to 163 days from 175 days in FY21. The return is notable given that payables to GenCos & TransCos increased significantly in FY21 and the utilities had to clear these additional dues in FY22.
- Utilities in Rajasthan, Uttar Pradesh and Uttarakhand improved days payable by more than 50 days over FY20-FY22.
- However, days payable remains higher than desired levels. Recognizing this Government has implemented LPS Rules in June 2022. This represents a major reform towards resolving the legacy outstanding payables towards GenCos and TransCos. The Rules provide the mechanism for settlement of outstanding dues as well as provisions to encourage distribution utilities to make timely bill payments.

#### 6. Days receivable recovered significantly

- Days receivable significantly reduced to 142 days in FY22 from 157 days in FY21, but still higher than benchmark levels.
- Four utilities contributed to approximately 50 percent of India's net trade receivables in FY22 – MSEDCL, PuVVNL, MVVNL and DVVNL.
- The net trade receivables stood at INR 2.42 lakh crore at the end of FY22, which is higher than FY20 level. If this quantum of trade receivables gets reduced to benchmark levels, it would help in clearing the discoms' payables to GenCos and TransCos to a large extent.

#### 7. Regulatory assets were flat in FY22, subsidy arrears declined but remain significant

- The sector's regulatory assets were stagnant over FY20-FY22 at INR 1.6 lakh crore, highlighting the need for greater state efforts to clear dues through appropriate tariff increments/capital support/efficiency measures. To address the challenge, the states are being pursued to formulate liquidation plans and non-creation of new regulatory assets going forward.
- Five states – Tamil Nadu, Rajasthan, Delhi, Maharashtra, Kerala – contributed heavily to the sector's regulatory assets. As per the latest tariff order for TANGEDCO, regulatory assets of INR 89,000 crore have been recognized. Maharashtra has carried out significant liquidation of regulatory assets.



# Other highlights

- All discoms covered under the 11<sup>th</sup> Integrated Rating Exercise have submitted their audited financial accounts, except for Jammu, Kashmir and Meghalaya – for these only provisional accounts have been received.
- Integrated scores improved for 46 out of 57 discoms covered in 11<sup>th</sup> Integrated Ratings.
- 35 utilities improved their cash adjusted ACS-ARR gap performance over FY20-FY22. Of these 12: Karnataka discoms, Rajasthan discoms, MePDCL, MPPoKVVCL, UPCL, Sikkim PD, MPMKVVCL, improved it by more than INR 1.0 per kWh.
- Of the 41 state owned discoms, where subsidy was booked in FY22, 32 reported receiving 100 percent or more of all subsidy amounts booked.
- Out of the 24 states which booked tariff subsidy, 18 states disbursed 100 percent or more of the amount (Karnataka, Maharashtra, Rajasthan, Punjab, Chhattisgarh, Madhya Pradesh, Assam, Haryana, Gujarat, Uttar Pradesh, Telangana, Tamil Nadu etc.). The remaining six states (Andhra Pradesh, Meghalaya, Delhi, Bihar, Himachal Pradesh, Tripura) disbursed 87 percent or more.
- Average billing efficiency for FY22 was 85.9 percent. 15 utilities reported billing efficiency greater than 92 percent, whereas 18 utilities reported it less than 82 percent. These utilities contributed 17 percent and 18 percent of total energy consumption, respectively. Billing efficiency improved by more than 3 percent over FY20-FY22 for 5 Discoms: SBPDCL, TSECL, UHBVNL, MPMKVVCL, WBSEDCL.
- 23 utilities achieved 100 percent collection efficiency. 18 utilities reported the collection efficiency metric improving by more than 5 percent.
- 21 discoms had cash adjusted DSCR of more than 1.1 in FY22. These are Gujarat discoms, Karnataka discoms, Delhi discoms, Haryana discoms, DNHPDCL, AEML, NPCL, TPML, TPWODL, MSPDCL, UPCL and CESC.
- 15 discoms had adjusted quick ratio of more than 1.0 in FY22. These are Gujarat discoms, DNHPDCL, AEML, NPCL, 3 Odisha discoms, IPCL, PSPCL, TSECL, MPPaKVVCL and APEPDCL.
- 27 utilities recorded days receivable of less than 60, and 27 utilities had days payable lower than 60.
- 15 Discoms received almost no Specific Disincentives. These include Gujarat discoms, Haryana discoms, Odisha discoms, AEML, TPML, NPCL, MPPaKVVCL and CHESCOM.
- 14 discoms scored more than 10 marks vis-à-vis maximum of 13 marks in performance excellence dimension (i.e., billing efficiency, collection efficiency, corporate governance, distribution loss -SERC Approved).
- 27 discoms scored more than 10 marks vis-à-vis maximum of 12 marks in external environment dimension (i.e., subsidy realized, loss takeover by state government, government dues, tariff cycle timelines, auto-pass through of fuel costs).
- Tariff orders for FY23 were issued for 65 of 71 utilities in the country. Four State/UT regulators did not issue them, including Arunachal Pradesh (power department), West Bengal (for IPCL), Delhi (BYPL, BRPL, TPDDL) and Jharkhand (JBVNL).
- FY21 True up orders were issued for 52 out of 71 utilities. The ones yet to issue were utilities from the State / UTs of West Bengal, Telangana, Jharkhand, Meghalaya, Mizoram, Tripura, Nagaland, Arunachal Pradesh, Goa, J&K, Andaman & Nicobar Islands, Lakshadweep and Delhi.
- 35 of 69 utilities covered in ratings implemented auto pass-through of fuel costs.





As part of the 11th Integrated Exercise, a set of best practices have also been identified that discoms can follow to improve their billing and collection efficiencies and manage working capital better. These include:

- **Digitize bill generation and payment:** Partner with popular mobile applications to deliver electricity bills; partner with UPI gateways and banks apps to facilitate online payments and reduce delays in collections
- **Employ advance meter reading capabilities:** Reduce bill reading errors by automating the process with tools such as AI-based apps to read meters from images, optical cable to connect with meters and download data
- **Leverage analytics to reduce theft, fraud:** Build an analytics team and equip it with MIS (Management Information System) reports to identify power theft and frauds. Employ dedicated vigilance squads for surveillance, use drones to monitor larger areas
- **Build capabilities:** Invest in technological capability among employee through tie-ups with academic institutes in power sector (National Power Training Institute, Electrical Research and Development Association etc.). Deploy ERP systems, robotic processes to automate regular processes
- **Optimize KPIs:** Re-evaluate payment terms if the discom has hired billing/collection agencies, institutionalize division-wise targets for greater accountability
- **Improve accounting processes:** Follow accounting standards (IND-AS) as prescribed under the Companies Accounting Standard Rules, maintain records of ageing trade receivables in quarterly or annual accounts

Further, the rating exercise has also launched an interactive digital dashboard (Urja DRISHTI), accessible at [urjadrishti.com](http://urjadrishti.com), to promote transparency in the sector for discoms, lenders and policy makers. The dashboard allows stakeholders to access present and past sectoral trends, identify underlying drivers for rating outcomes, compare performance across entities and prepare for further improvements.

## About the 11<sup>th</sup> Integrated Rating Exercise

The 11<sup>th</sup> Integrated Rating Exercise methodology consists of 15 base rating metrics and 9 disincentives, which together lead to a score—out of 100—to holistically capture every discom's performance.<sup>2</sup> Based on these scores and specific overriding conditions<sup>3</sup>, the discoms are then assigned grades (A+, A, B, B-, C, C- and D).

The 11<sup>th</sup> Integrated Rating Exercise maintains the same rating framework as the 10<sup>th</sup>, thus allowing stakeholders to easily compare their performance with that from the previous year, identify key trends and gauge the impact of measures taken. It also brings forth persistent areas of concern that need resolution.

Exhibit 1

### Summary of the 11<sup>th</sup> Integrated Rating Methodology for State & Private discoms

15 Base Metrics and 9 Specific Disincentives

● Red card metric

Integrated Rating						
Financial Sustainability			Performance Excellence		External Environment	
75%			13%		12%	
<b>Overall Profitability and Cash Position</b>	ACS – ARR Gap (cash adjusted)	35	Billing Efficiency	5	Subsidy Realized (Last 3 FYs)	4
	Days Receivable	3	Collection Efficiency	5	Loss Takeover by State Government	3
<b>GenCo, TransCo &amp; Operational Obligations</b>	Days Payable to GenCos & TransCos	10	Distribution Loss (SERC approved)	2	Government Dues (Last 3 FYs)	3
	Adjusted Quick Ratio	10	Corporate Governance	1	Tariff Cycle Timelines	1
<b>Lender Obligations</b>	Debt Service Coverage Ratio (cash adjusted)	10			Auto Pass Through of Fuel Costs	1
	Leverage (Debt/EBITDA) (cash adjusted)	7				
Specific Disincentives <sup>1,2</sup>						
● Auditor's Adverse Opinion	-15	Audit Qualifications	-4	Tariff Independent of Subsidy	-1	
● Availability of Audited Accounts	-15	Governance (Audit Committee, Exclusive MD & DF, Quarterly Accounts)	-3	Uncovered Revenue Gap (Current Year)	-4	
● Default to Banks/FIs	-15	Tariff Cycle Delays	-4.5	Regulatory Assets <sup>3</sup>	-5	

<sup>1</sup> The cumulative impact on the integrated score from all Specific Disincentives will be capped at -10 points, except in the case of Red card metrics

<sup>2</sup> Red card metrics carry a heavy disincentive score which is not capped under the limit for Specific Disincentives and results in ineligibility for A+, A grades

<sup>3</sup> Increase in regulatory assets balance will result in ineligibility for A+, A and B grades

<sup>2</sup> For Power Departments, a subset of metrics is being used, in view of their non-corporatized nature of operations. This subset of metrics has been detailed in Section 2.2.2

<sup>3</sup> Overriding conditions are cash adjusted ACS-ARR gap, red card metrics, and increase in regulatory assets

Last year, the exercise was revamped and a few landmark changes were introduced to the rating framework. These include:

- Replacing metrics based on accrual accounting with cash-adjusted metrics: This was done to surface the true, on-ground financial position of the sector.
- Increasing focus on quantitative metrics: This data was derived from audited accounts and regulatory filings and provided greater authenticity and information than the qualitative ones.
- Forming a committee (constituted by MoP) to review discom ratings: This was done basis key events, such as regulatory developments and new defaults to banks and financial institutions, during the year.

### Key features of the 11<sup>th</sup> Integrated Rating Exercise



**Comprehensive scorecard** for every DISCOM with rating, ranking, trajectory and performance barometer



Ratings will be **dynamic in nature**, reviewed quarterly for key triggers (e.g., defaults to banks)



Metrics **adjusted for actual cash received** rather than accruals, e.g., ACS-ARR gap, DSCR, Leverage



**Interactive digital dashboard** to view rankings, ratings and benchmarking results



Ratings **rely on available and verifiable data** sourced from audited accounts, information from utilities, regulatory filings and orders, etc.



Robust **analytics backed approach** – weighted average of 3 years data (to normalize anomalies), ability to drill-down from dimension to specific parameters

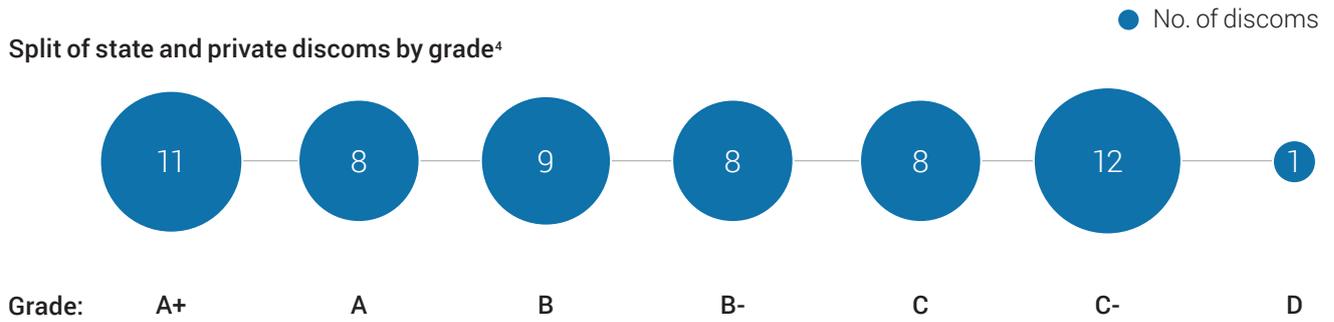


**Actionable for DISCOMs** via specific root causes of under-performance and best practices for improvement

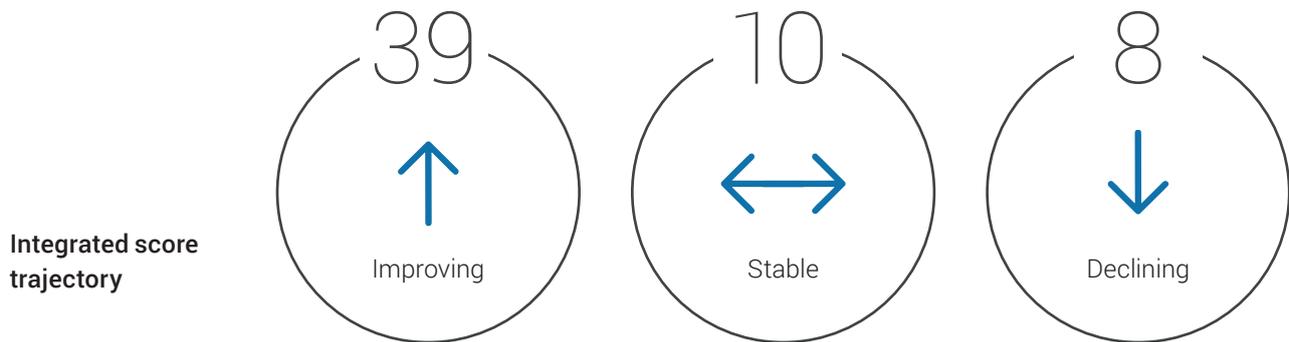
## Results from the 11<sup>th</sup> Integrated Rating Exercise

The scores and grades of discoms have shown significant improvement in the 11<sup>th</sup> Ratings, as compared to the previous 10<sup>th</sup> Ratings

- Of the 57 discoms covered in 11th Integrated Ratings, 46 saw improved scores. For 39 discoms, the scores improved by more than 5 percent.
- 24 discoms saw grades improve, whereas only 1 discom has been downgraded.
  - Of the balance 11 discoms with lower scores, 8 of them saw their scores decline by more than 5 percent.
- The number of discoms awarded C or lesser grade (C-, D) have reduced from 35 to 21.



### Split of discoms by performance trajectory



Note:

1. Improving: Integrated Score of 11th Ratings increased by 5% or more than 10th Ratings
2. Declining: Integrated Score of 11th Ratings decreased by 5% or more than 10th Ratings
3. Stable: Integrated Score of 11th Ratings increased / decreased by less than 5% than 10th Ratings



<sup>4</sup> Excludes Power Departments (grades assigned to them are available in Section 3.2)



# 02

## Background and introduction

The power sector is a key enabler for economic growth in India. From 2010 to 2022, power demand in the country nearly doubled to 1,492 billion units. During this time, power generation capacity also grew, rising from 156 GW (gigawatts) to 412 GW (Feb 2023).<sup>5</sup> The government's continued push to enhance the power sector, and a greater thrust on low-cost renewable energy, has resulted in a significant decrease in the power deficit from -10.1 percent in 2010 to just -0.4 percent in 2022<sup>6</sup>.

Over the last decade, India has taken significant strides towards achieving 100 percent electrification, a single national grid, launching power exchange markets, among other initiatives. The country's commitment to achieve Net Zero by 2070 has provided further impetus to the shift to renewable energy sources. In fact, as part of its Paris Agreement commitments, India announced its Nationally Determined Contribution (NDC) – which includes reducing its GDP's emissions intensity by 45 percent by 2030 (w.r.t 2005 levels) and achieving 50 percent of installed capacity from non-fossil fuel-based energy resources by 2030.<sup>7</sup> In renewables, India has made tremendous progress, with installed capacity up from 57 GW in 2010 to 169 GW (Feb 2023), with a target to further triple it to 500 GW by 2030.<sup>8</sup> The country is also taking steps to meet its growing power demand through initiatives such as National Hydrogen Mission and the tender for battery energy storage system (BESS), among other moves.

<sup>5</sup> Ministry of Power

<sup>6</sup> Ibid

<sup>7</sup> Union Cabinet

<sup>8</sup> Ministry of Power

Despite achieving several feats, the industry is not without its challenges. The power distribution sector, in particular, has been facing issues with financial stability, which in turn is impeding growth. Even after government interventions, challenges relating to propensity to subsize tariff increments, low metering coverage, significant dependency on state government for timely subsidy payments, reliance on freebies due to subsidized tariffs, increasing working capital requirement and overall lack of profitability, pose as major headwinds.

The COVID-19 pandemic added to these woes. The last two years saw a significant drop in commercial and Institution (C&I) power demand, lower billing and collection efficiency, liquidity crunch, and mounting debt. To infuse liquidity in the sector, in FY21 the government announced INR 90,000 crore package under Atmanirbhar Bharat to provide guaranteed concessional loans to distribution utilities.

Several other reforms outside of COVID-19 have been implemented to reinvigorate the sector. The most important of these are:

1. RDSS (Revamped Distribution Sector Scheme) to tackle grassroots issues – including technical losses, metering losses, institutional capacity, subsidy arrears. The results-linked scheme, established in June 2021, has pushed the utilities and states to address performance gaps, and chart action plans in order to avail the benefits under this INR 3 lakh crore scheme.
2. Additional Prudential lending norms for linking disbursement of new loans with improvement in various performance obligations of the utilities.
3. Other reforms including, LPS Rules (Late payment surcharge & Related matters), 2022 and mandatory Energy Audit / accounting.

The Annual Integrated Rating Exercise is another positive step in this direction, where the performance of the power distribution utilities is captured across a variety of parameters such as availability, reliability, and efficiency. Further, many parameters used in the rating exercise are encouraging utilities to enhance their operations to meet the criteria for these schemes.

## 2.1 Introduction to the 11<sup>th</sup> Integrated Rating Exercise

Since 2012, Integrated Rating Exercise has been executed annually under the aegis of Ministry of Power (MoP) with the aim of evaluating performance of power distribution utilities. MoP has mandated Power Finance Corporation (PFC) to co-ordinate the rating exercise. So far, ten integrated rating exercises have been completed with the last, i.e., the 10<sup>th</sup> Integrated Ratings released by MoP on 5<sup>th</sup> August 2022 covering utility performance over FY 2020-21.

The framework adopted for the rating exercise is approved by the MoP and has evolved over the years to reflect the changes in the power sector and national priorities. The rating framework underwent a significant overhaul during the 10<sup>th</sup> Integrated Rating Exercise – wherein the rating framework was significantly expanded to comprehensively evaluate utility performance. The new evaluation metrics were sourced from mix of key metrics being used in RDSS evaluation, global benchmarks in power distribution sector and through extensive stakeholder engagement including MoP, discom executives, global energy experts, PFC, REC.



The salient features of the revised methodology adopted for 10<sup>th</sup> Integrated Rating Exercise have been detailed below:

#### **Ratings that reflect the true picture**

- All calculations based on actual cash received instead of accruals, to factor in the impact of realization of cash from consumer dues, government dues, and tariff subsidies. Metrics that have improved due to this change include the ACS-ARR gap, debt service coverage ratio, and leverage.
- Increased weightage of quantitative metrics (derived from audited accounts and regulatory filings and orders), to improve the accuracy and transparency of ratings.
- Negative scoring for non-compliance with specific metrics to promote adoption of best practices, such as unavailability of audited accounts and defaults to banks and financial institutions. For power departments, a subset of metrics relevant to them has been used.
- Captured impact of external environment on the discoms' financials, through metrics such as subsidy realization (received / booked), loss takeover by state government, tariff cycle timelines, implementation of auto-pass through of fuel costs
- Establishment of protocols and a Committee for a trigger-based review of ratings, to factor in the impact of events of significance and to ensure that ratings reflect the latest performance of discoms. A ratings review can be triggered by new payment defaults, publication of audited accounts, issuance of tariff orders, etc.

#### **A robust analytical approach**

- Usage of three years of weighted average performance to calculate scores for specific metrics, to factor in the impact of fluctuations and anomalies and reflect a long-term view of discoms' performance.
- Trajectory-based scoring for specific metrics to promote positive trends and improvements.
- Performance benchmarks and best practices used to determine scoring boundaries.

#### **Insights for all stakeholders:**

- A digital dashboard (accessible at [www.urjadrishti.com](http://www.urjadrishti.com)) has been developed to enable participants and stakeholders in the exercise to view key performance metrics and comparisons between discoms.
- Deeper performance analyses and insights have been enabled for individual discoms by benchmarking performance using important metrics and analyses of trends and drivers. Every discom will be provided with a detailed report benchmarking their performance on each parameters with peers. It also highlights their strengths, improvement areas and potential actions they can take to improve performance.
- Best practices and insights from top-performing discoms have been synthesized to inspire the rest of the sector.

The 10<sup>th</sup> Integrated Rating Exercise was also the first time in the Integrated Ratings, that the Private Distribution Utilities and Power Departments were also included in the exercise to provide complete sectoral coverage. The same has been continued for the 11<sup>th</sup> Integrated Rating Exercise as well.

The 11<sup>th</sup> Integrated Rating continues with the same framework used the year before with the objective of capturing the performance changes on the same base. Further, an interactive and dynamic dashboard has been implemented during this year's exercise to enable discoms to view their rating performance, past scoring and value trends, benchmark against other discoms and draw insights for future improvements.

## 2.2 Summary of the 11<sup>th</sup> Integrated Rating methodology

The 11<sup>th</sup> Integrated Rating methodology evaluates discoms performance against three main parameters:

- 1. Financial Sustainability (75% weightage):** Includes metrics such as ACS-ARR gap (cash adjusted), days receivable, days payable to GenCos and TransCos, adjusted quick ratio, debt service coverage ratio (cash adjusted) and leverage (cash adjusted).
- 2. Performance Excellence (13% weightage):** Includes metrics focusing on operational performance, such as distribution loss (SERC approved), billing efficiency, collection efficiency and corporate governance.
- 3. External Environment (12% weightage):** Includes metrics to cover the impact of state government action and regulator action, such as subsidy realized, loss takeover, government dues, auto pass through of fuel and adherence to tariff cycle timelines.

For certain parameters, evaluation covers three years of performance as well as improvements from year to year. For Power Departments, a subset of metrics is being used, in view of their non-corporatized nature of operations. This subset of metrics has been detailed in Section 2.2.2.

### 2.2.1 Evaluation Parameters for State and Private Utilities<sup>9</sup>

S. No.	Parameter	Max. score
<b>A</b>	<b>Financial Sustainability</b>	<b>75</b>
1	ACS-ARR Gap (cash adjusted)	35
2	Days Receivable	3
3	Days Payable to Gencos and Transcos	10
4	Adjusted Quick Ratio	10
5	Debt Service Coverage Ratio (cash adjusted)	10
6	Leverage (Debt/EBITDA; cash adjusted)	7
<b>B</b>	<b>Performance Excellence</b>	<b>13</b>
1	Distribution Loss (SERC approved)	2
2	Billing Efficiency	5
3	Collection Efficiency	5
4	Corporate Governance	1
<b>C</b>	<b>External Environment</b>	<b>12</b>
1	Subsidy Realized (Last 3 FYs)	4
2	Loss Takeover by State Government	3
3	Government Dues (Last 3 FYs)	3
4	Tariff Cycle Timelines	1
5	Auto Pass-through of Fuel Costs	1

<sup>9</sup> Appendix 3 provides details each rating parameter

S. No.	Parameter	Max. score
<b>D</b>	<b>Specific Disincentives</b>	
1	● Auditor's Adverse Opinion	0, -15
2	● Availability of Audited Accounts	0, -15
3	● Default to Banks/Financial Institutions	0, -15
4	Audit Qualifications	0, -4
5	Governance	0, -3
6	Tariff Cycle Delays	0, -4.5
7	Tariff Independent of Subsidy	0, -1
8	Uncovered Revenue Gap (Current Year)	0, -4
9	Regulatory Assets <sup>10</sup>	0, -5
	● Red card metrics <sup>11</sup>	

## 2.2.2 Evaluation Parameters for Power Departments

S. No.	Parameter	Max. score
<b>A</b>	<b>Financial Sustainability</b>	<b>55</b>
1	ACS-ARR Gap (cash adjusted)	55
<b>B</b>	<b>Performance Excellence</b>	<b>35</b>
1	Distribution Loss (SERC approved)	10
2	Billing Efficiency	10
3	Collection Efficiency	10
4	Corporate Governance	5
<b>C</b>	<b>External Environment</b>	<b>10</b>
1	Subsidy Realized (Last 3 FYs)	6
2	Tariff Cycle Timelines	2
3	Auto Pass-through of Fuel Costs	2
<b>D</b>	<b>Specific Disincentives</b>	
1	Tariff Cycle Delays	0, -4.5
2	Tariff Independent of Subsidy	0, -1
3	Uncovered Revenue Gap (Current Year)	0, -4
4	Regulatory Assets	0, -5

<sup>10</sup> Increase in regulatory assets balance will result in ineligibility for A+, A and B grades

<sup>11</sup> Red card metrics are those that substantially affect financial performance of discoms and therefore carry a higher negative score. They are not included in the -10 capping limit that applies to other Specific Disincentives as well as result in ineligibility for A+ and A grades. For more details, please see Appendix 3

## 2.2.3 Grading and Performance

The 11<sup>th</sup> Integrated Rating Exercise assigns a grade based on rating score and performance trajectory to every discom similar to the 10<sup>th</sup> Integrated Rating Exercise. The change is limited to basis of determining performance trajectory.

### Grading Scale

Grading for state and private discoms takes into account both the integrated rating score and the ACS-ARR gap performance. For power departments, grades are based only on the rating score.

Grade	Rating score	Additional overriding ACS-ARR gap condition	Grading definitions
A+	Greater than or equal to 85	Should be in surplus (Gap should be less than or equal to 0 paisa/kWh, i.e., surplus)	Exceptionally strong financial and operational performance
A	Greater than or equal to 65 and less than 85	ACS-ARR Gap should be less than or equal to 15 paisa/kWh	Very high financial and operational performance
B	Greater than or equal to 50 and less than 65	ACS-ARR Gap should be less than or equal to 50 paisa/kWh	High financial and operational performance
B-	Greater than or equal to 35 and less than 50	ACS-ARR Gap should be less than Rs. 1.00/kWh	Moderate financial and operational performance
C	Greater than or equal to 15 and less than 35	ACS-ARR Gap should be less than Rs. 1.25/kWh	Below average financial and operational performance
C-	Less than 15		Low financial and operational performance
D	Utilities under SMA-2		Very low financial and operational performance

### Performance Trajectory

This year, performance trajectory is assigned to discoms, based on the trend in Integrated Score (as detailed below). Since this is the second year of continuing the same Integrated Rating Methodology, FY21 Integrated Score is used as the baseline to determine performance trajectory.

Trajectory	Definition
Improving	Integrated Score of 11 <sup>th</sup> Ratings increased by 5% or more than 10 <sup>th</sup> Ratings
Declining	Integrated Score of 11 <sup>th</sup> Ratings decreased by 5% or more than 10 <sup>th</sup> Ratings
Stable	Integrated Score of 11 <sup>th</sup> Ratings increased / decreased by less than 5% than 10 <sup>th</sup> Ratings





# 03

## Ratings and results of the 11<sup>th</sup> Integrated Rating Exercise

Based on the methodology approved by the Ministry of Power and elaborated in the previous chapter, the discoms have been given a ranking and rating for the 11<sup>th</sup> Integrated Rating Exercise in sections 3.1 and 3.2.

## 3.1 State & private utilities

Rank	Name of utility	State/UT	Ownership	Grade movement	Grade
1	Adani Electricity Mumbai Limited (AEML)	Maharashtra	Private Utility	-	A+
2	Uttar Gujarat Vij Company Limited (UGVCL)	Gujarat	State Power Utility	-	A+
3	Madhya Gujarat Vij Company Limited (MGVCL)	Gujarat	State Power Utility	-	A+
4	DNH Power Distribution Corporation Limited (DNHPDCL)	Dadra & Nagar Haveli	State Power Utility	-	A+
5	Paschim Gujarat Vij Company Limited (PGVCL)	Gujarat	State Power Utility	-	A+
6	Dakshin Gujarat Vij Company Limited (DGVCL)	Gujarat	State Power Utility	-	A+
7	Noida Power Company Limited (NPCL)	Uttar Pradesh	Private Utility	-	A+
8	Tata Power Limited - Mumbai (TPML)	Maharashtra	Private Utility	-	A+
9	Dakshin Haryana Bijli Vitran Nigam Limited (DHBVNL)	Haryana	State Power Utility	-	A+
10	Uttar Haryana Bijli Vitran Nigam Limited (UHBVNL)	Haryana	State Power Utility	Upgrade	A+
11	Punjab State Power Corporation Limited (PSPCL)	Punjab	State Power Utility	Upgrade	A
12	Uttarakhand Power Corporation Limited (UPCL)	Uttarakhand	State Power Utility	Upgrade	A
13	Tata Power Delhi Distribution Limited (TPDDL)	Delhi	Private Utility	-	A
14	Assam Power Distribution Company Limited (APDCL)	Assam	State Power Utility	Upgrade	A
15	Mangalore Electricity Supply Company Limited (MESCOM)	Karnataka	State Power Utility	Upgrade	A
16	CESC Limited (CESC)	West Bengal	Private Utility	-	A
17	India Power Corporation Limited (IPCL)	West Bengal	Private Utility	Downgrade	A
18	Chamundeshwari Electricity Supply Corporation Limited (CHESCOM)	Karnataka	State Power Utility	Upgrade	B
19	Ajmer Vidyut Vitran Nigam Limited (AVVNL)	Rajasthan	State Power Utility	Upgrade	B
20	Kerala State Electricity Board Limited (KSEBL)	Kerala	State Power Utility	Upgrade	B
21	Gulbarga Electricity Supply Company Limited (GESCOM)	Karnataka	State Power Utility	Upgrade	B
22	Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL)	Andhra Pradesh	State Power Utility	Upgrade	B
23	Himachal Pradesh State Electricity Board Limited (HPSEBL)	Himachal Pradesh	State Power Utility	Upgrade	B
24	Hubli Electricity Supply Company Limited (HESCOM)	Karnataka	State Power Utility	Upgrade	B
25	BSES Yamuna Power Limited (BYPL)	Delhi	Private Utility	-	B-
26	BSES Rajdhani Power Limited (BRPL)	Delhi	Private Utility	-	B-
27	Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Limited (MPPaKVVCL)	Madhya Pradesh	State Power Utility	Upgrade	B-
28	West Bengal State Electricity Distribution Company Limited (WBSEDCL)	West Bengal	State Power Utility	Upgrade	B-

Rank	Name of utility	State/UT	Ownership	Grade movement	Grade
29	Jaipur Vidyut Vitran Nigam Limited (JVVNL)	Rajasthan	State Power Utility	Upgrade	B-
30	Maharashtra State Electricity Distribution Company Limited (MSEDCL)	Maharashtra	State Power Utility	Upgrade	B-
31	Bangalore Electricity Supply Company Limited (BESCOM)	Karnataka	State Power Utility	Upgrade	B-
32	Tripura State Electricity Corporation Limited (TSECL)	Tripura	State Power Utility	-	B-
33	Paschimanchal Vidyut Vitran Nigam Limited (PVVNL)	Uttar Pradesh	State Power Utility	-	C
34	Chhattisgarh State Power Distribution Company Limited (CSPDCL)	Chhattisgarh	State Power Utility	-	C
35	Andhra Pradesh Central Power Distribution Company Limited (APCPDCL)	Andhra Pradesh	State Power Utility	-	C
36	Manipur State Power Distribution Company Limited (MSPDCL)	Manipur	State Power Utility	-	C
37	Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited (MPMKVVCL)	Madhya Pradesh	State Power Utility	Upgrade	C
38	Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited (MPPoKVVCL)	Madhya Pradesh	State Power Utility	Upgrade	C
39	Jodhpur Vidyut Vitran Nigam Limited (JdVVNL)	Rajasthan	State Power Utility	Upgrade	C
40	Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL)	Andhra Pradesh	State Power Utility	Upgrade	C
41	Kanpur Electricity Supply Company Limited (KESCO)	Uttar Pradesh	State Power Utility	-	C-
42	Dakshinanchal Vidyut Vitran Nigam Limited (DVVNL)	Uttar Pradesh	State Power Utility	-	C-
43	Southern Power Distribution Company of Telangana Limited (TSSPDCL)	Telangana	State Power Utility	-	C-
44	North Bihar Power Distribution Company Ltd (NBPDC)	Bihar	State Power Utility	-	C-
45	South Bihar Power Distribution Company Limited (SBPDCL)	Bihar	State Power Utility	-	C-
46	Purvanchal Vidyut Vitran Nigam Limited (PuVVNL)	Uttar Pradesh	State Power Utility	-	C-
47	Northern Power Distribution Company of Telangana Limited (TSNPDCL)	Telangana	State Power Utility	-	C-
48	Madhyanchal Vidyut Vitran Nigam Limited (MVVNL)	Uttar Pradesh	State Power Utility	-	C-
49	Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO)	Tamil Nadu	State Power Utility	-	C-
50	Jharkhand Bijli Vitran Nigam Limited (JBVNL)	Jharkhand	State Power Utility	-	C-
51	Meghalaya Power Distribution Corporation Limited (MePDCL)	Meghalaya	State Power Utility	-	D

The following 6 utilities have not been included in the main ranking list because they have not completed three full years of operations yet. The rating for these utilities is based on their reported performance for FY22 only.

Name of utility	State	Ownership	Grade movement	Grade
TP Western Odisha Distribution Limited (TPWODL)	Odisha	Private Utility	Upgrade	A+
TP Southern Odisha Distribution Limited (TPSODL)	Odisha	Private Utility	Upgrade	A
TP Northern Odisha Distribution Limited (TPNODL)	Odisha	Private Utility	Upgrade	B
TP Central Odisha Distribution Limited (TPCODL)	Odisha	Private Utility	-	B
Kashmir Power Distribution Corporation Limited (KPDCL)	J&K	State Power Utility	-	C-
Jammu Power Distribution Corporation Limited (JPDCL)	J&K	State Power Utility	-	C-

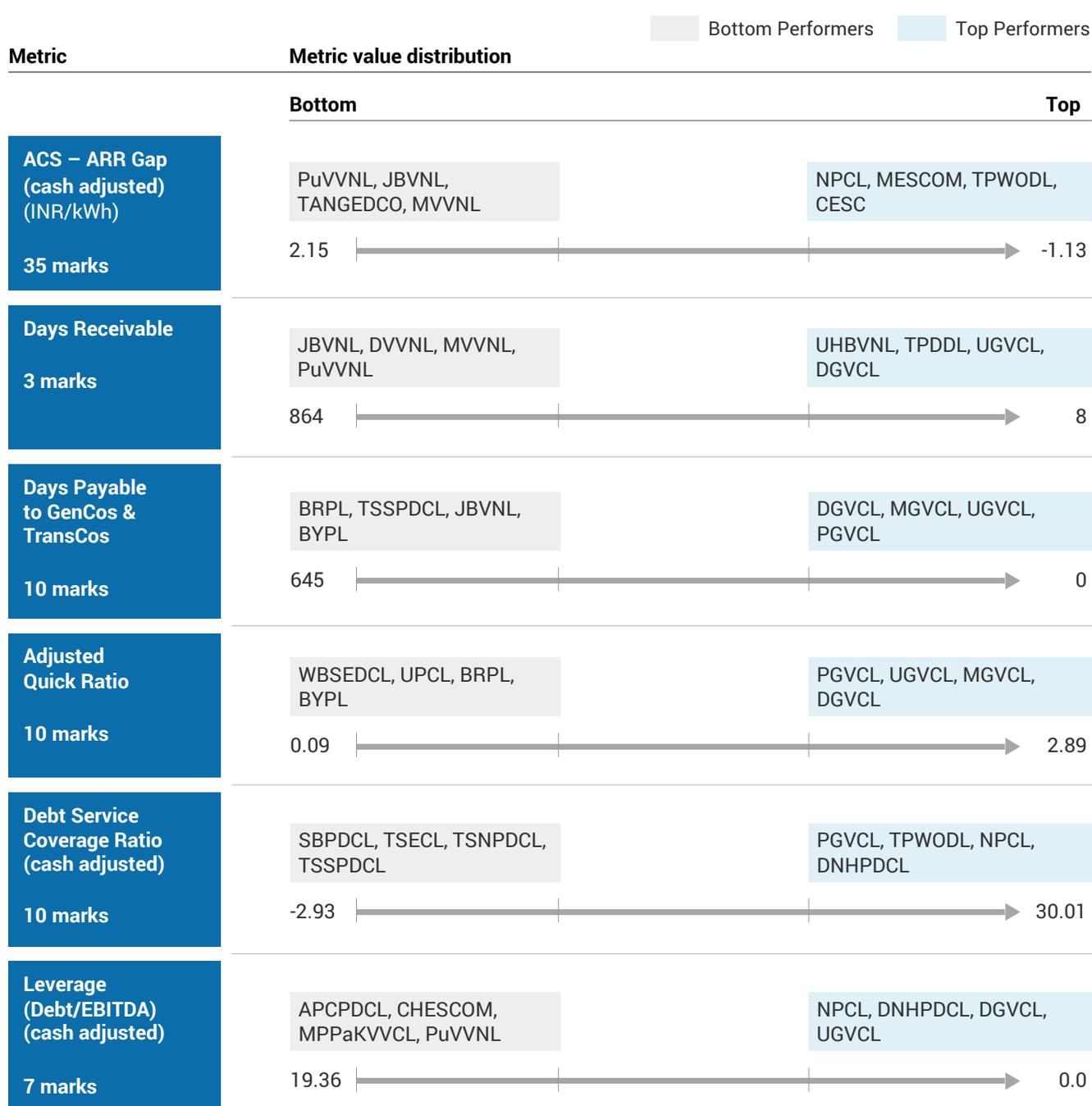
## 3.2 Power Departments

Rank	Name of utility	State/UT	Grade movement	Grade
1	Chandigarh PD	Chandigarh	Downgrade	B
2	Goa PD	Goa	Downgrade	B-
3	BEST	Maharashtra	Downgrade	C
4	Sikkim PD	Sikkim	Upgrade	C
5	Daman & Diu PD	Daman & Diu	Downgrade	C-
6	Nagaland PD	Nagaland	-	C-
7	Mizoram PD	Mizoram	Downgrade	C-
8	Arunachal PD	Arunachal Pradesh	-	C-
9	Puducherry PD	Puducherry	Downgrade	C-
10	Lakshadweep ED	Lakshadweep	-	C-
11	Andaman & Nicobar PD	Andaman & Nicobar	-	C-
NA	Ladakh PD	Ladakh	-	C

## 3.3 Performance of discoms on rating metrics

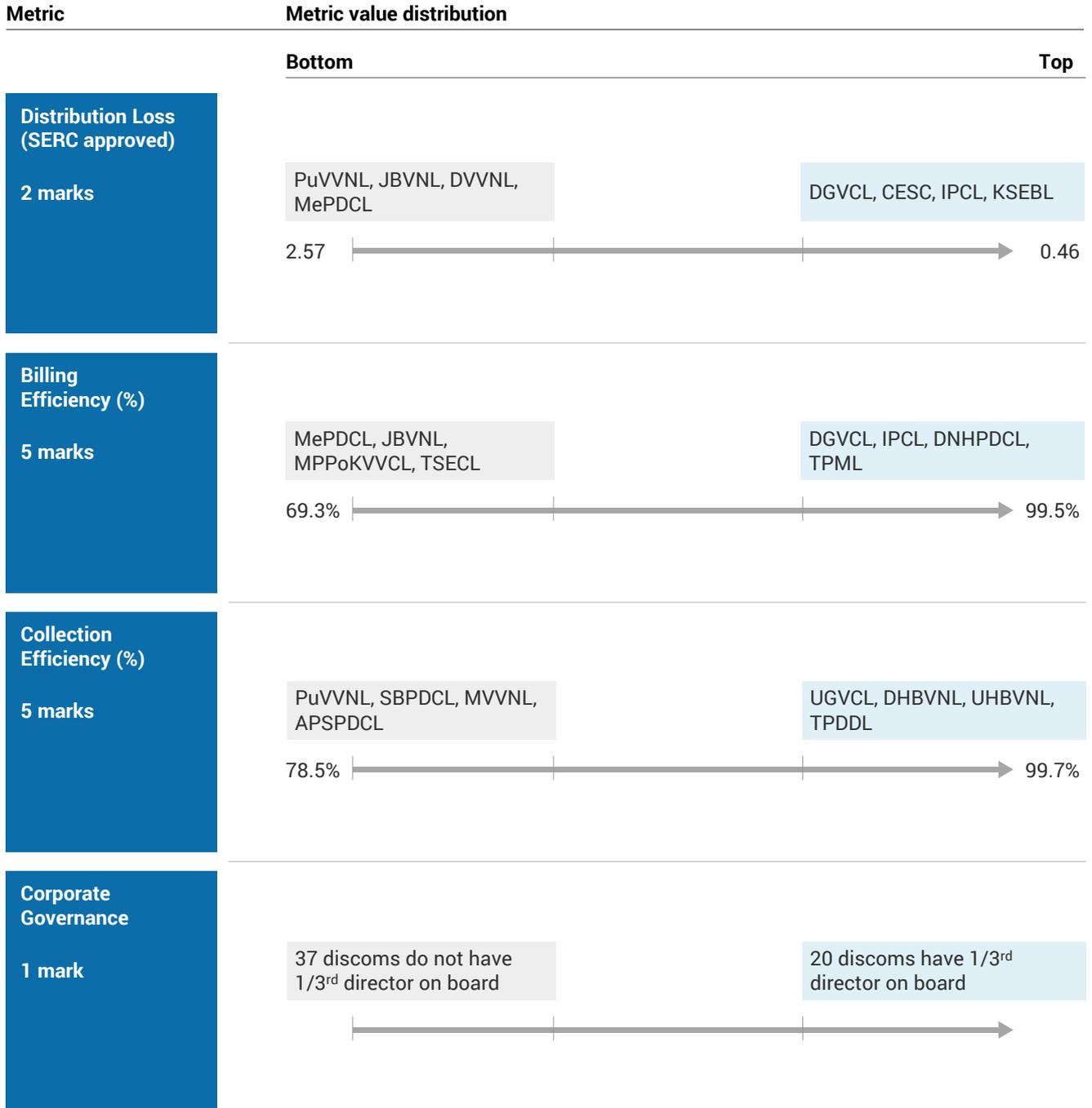
The grades indicate the overall performance of the discoms utilizing the weightage of individual metrics and various overriding criteria. A deeper look at the individual metrics indicates that while most of the top performing discoms have performed consistently well across metrics, there is some variation in the bottom performers by metric. Some discoms feature in the bottom performers across large number of metrics. Dissecting the performance of discoms by dimensions reveals 2 key insights a) DISCOMs in select states are consistently performing well on financial sustainability metrics b) the trend has shifted from majorly private discoms in most of the top performers on performance excellence metrics to a mix of State and private discoms.

### Financial Sustainability

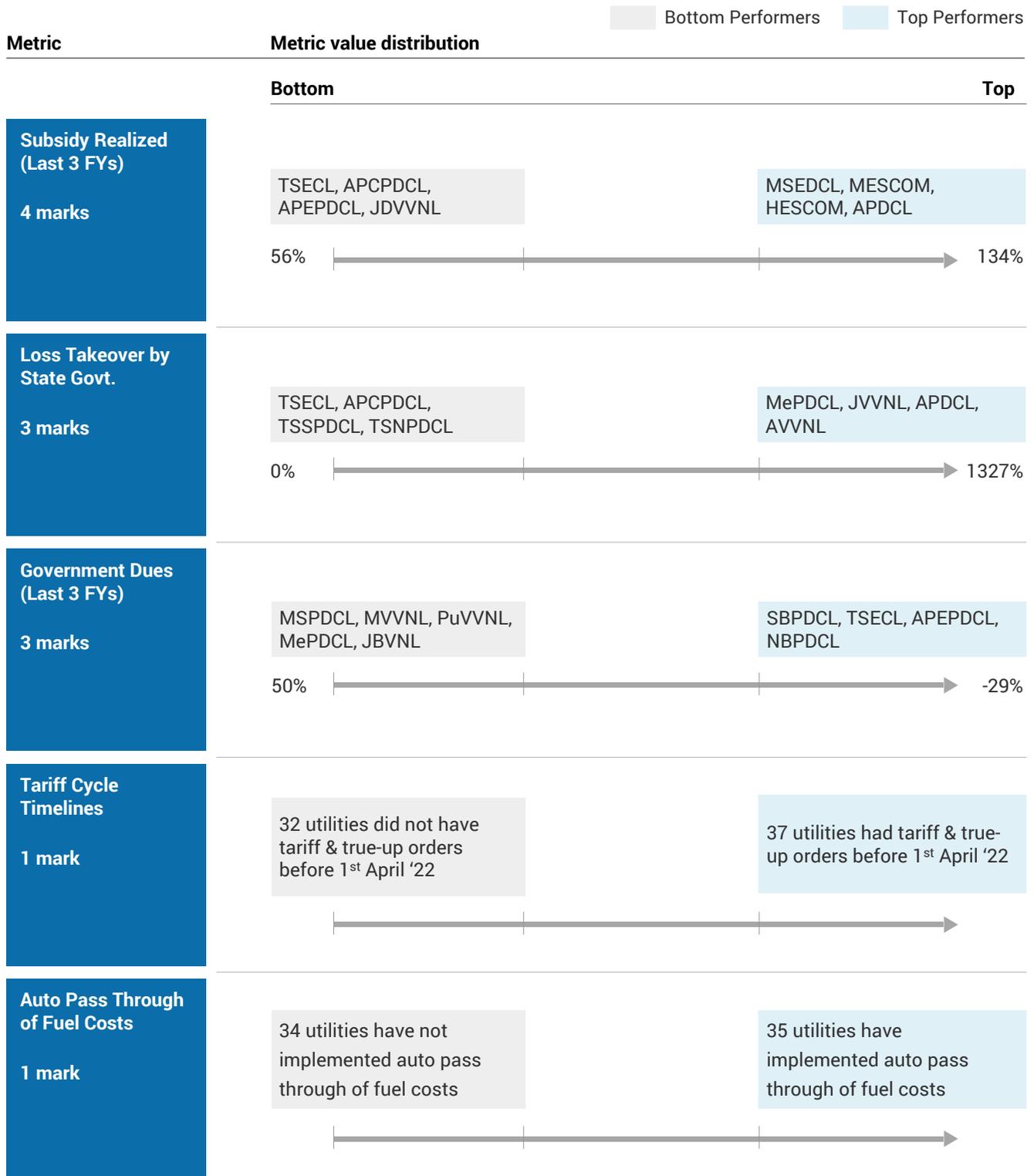


Performance Excellence

Bottom Performers Top Performers



## External Environment





# 04

## State of India's Power Distribution Sector

The 11<sup>th</sup> Integrated Rating Exercise brings forth critical insights into the overall performance of the power distribution sector. In FY22, the sector displayed several green shoots and encouraging recovery since the pandemic hit. On several important parameters such as financial deficit, AT&C losses, collection efficiency, its performance improved compared to pre-COVID-19 levels, whereas in certain other areas longstanding challenges continue to hinder growth. This chapter deep dives into several ranking parameters below.

Sectoral analysis for FY22 is based on data of 62 utilities, whereas data for all 71 utilities is considered for FY21 and FY20. FY22 data was not available for 4 discoms and 5 power departments – Torrent Power Surat, Torrent Power Ahmedabad, JPDCL, KPDCL, Puducherry PD, Mizoram PD, Daman & Diu PD, Andaman & Nicobar Islands PD, Lakshadweep Islands ED.

# 4.1 Financial deficit

Financial deficit is the most important indicator of financial health in the sector. The 11<sup>th</sup> Annual Integrated Rating calculates the absolute gap (i.e., losses) on a cash adjusted basis, where the focus is on capturing revenue cash flows instead of revenue accrued.

**Financial deficit in India’s power distribution sector nearly halved in FY22 as compared to FY20, despite an 8 percent increase in gross input energy.**

In FY22, the power distribution sector’s financial deficit nearly halved, when compared to FY20, with absolute cash-adjusted gap declining 46 percent to INR 53,000 crore. Shortfall in cash collection, i.e., the cash-adjustment in the absolute gap on account of gross trade receivables also improved – in FY20, cash adjusted revenue was INR 38,000 crore lower than accrued revenue, compared with INR 24,000 crore in FY22.

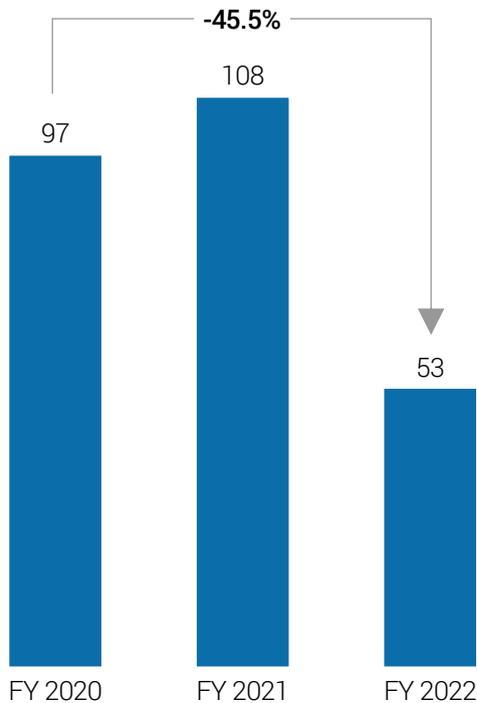
Analyzing the losses shows the deficit narrowed despite gross input energy volume growing by 8 percent over FY20-FY22 on the back of rising demand for power. This was driven by a 50 percent improvement in the ACS-ARR gap, which captures the cash-adjusted gap per unit. This highlights that the power distribution entities were recording a loss of 79 paise per unit energy in FY20, which reduced to only 40 paise per unit energy in FY22.

Exhibit 1

## Trend in national cash adjusted gap for FY20 to FY22

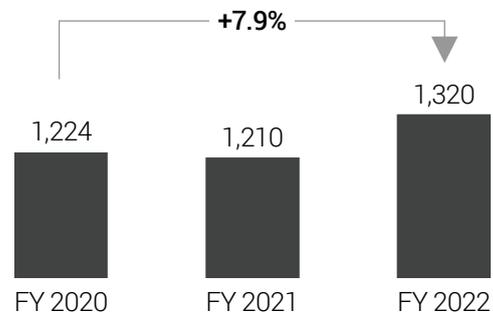
### Absolute cash adjusted gap

INR '000 crores



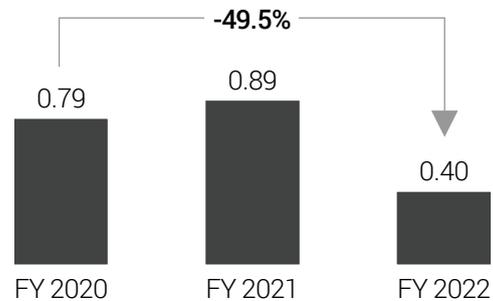
### Gross input energy

BU's



### ACS-ARR Gap

INR/kWh



State discoms from five states: Rajasthan, Maharashtra, Karnataka, Madhya Pradesh and West Bengal showed the most improvement in absolute cash-adjusted gap largely due to higher subsidies disbursement by state governments and better cash collections. Together, their absolute cash-adjusted gap reduced by about INR 43,000 crore over FY20-FY22.

#### State discoms of following states showed the most improvement in their absolute cash-adjusted Gap

State	Cash adjusted gap FY22 (INR cr)	Cash adjusted gap FY20 (INR cr)	Cash adjusted gap improvement (FY22–FY20) (INR cr)
Rajasthan	-2,198	13,651	-15,850
Maharashtra	1,154	12,699	-11,546
Karnataka	-3,203	4,698	-7,901
Madhya Pradesh	2,441	7,210	-4,769
West Bengal	-1,106	2,259	-3,364

#### ACS-ARR (cash-adjusted) gap improved by more than 1.00 INR/kWh for 12 utilities over FY20-FY22

Utility	State	Cash adjusted gap (INR cr)		ACS-ARR (cash adjusted) (INR / kWh)		
		FY20	FY22	FY20	FY22	FY22 – FY20
JdVVNL	Rajasthan	7,077	593	2.53	0.18	-2.35
GESCOM	Karnataka	1,038	-640	1.20	-0.73	-1.93
MePDCL	Meghalaya	465	14	1.95	0.05	-1.91
JVVNL	Rajasthan	4,946	-1,299	1.52	-0.36	-1.88
MESCOM	Karnataka	212	-903	0.35	-1.52	-1.87
CHESCOM	Karnataka	376	-740	0.49	-0.88	-1.37
AVVNL	Rajasthan	1,628	-1,493	0.74	-0.58	-1.33
MPPoKVVCL	Madhya Pradesh	3,284	683	1.52	0.27	-1.25
UPCL	Uttarakhand	892	-746	0.61	-0.49	-1.10
BESCOM	Karnataka	3,168	-284	0.98	-0.09	-1.07
Sikkim PD	Sikkim	178	78	1.71	0.64	-1.07
MPMKVVCL	Madhya Pradesh	3,271	738	1.29	0.26	-1.04

The bulk of absolute cash-adjusted gap in FY22 was concentrated with 8 utilities. TANGEDCO (Tamil Nadu), TSSPDCL, TSNPDCL (Telangana<sup>12</sup>), MVVNL, PuVVNL, DVVNL (Uttar Pradesh), SBPDCL (Bihar), APSPDCL (Andhra Pradesh) together account for nearly 74 percent of the absolute cash-adjusted gap in the country.

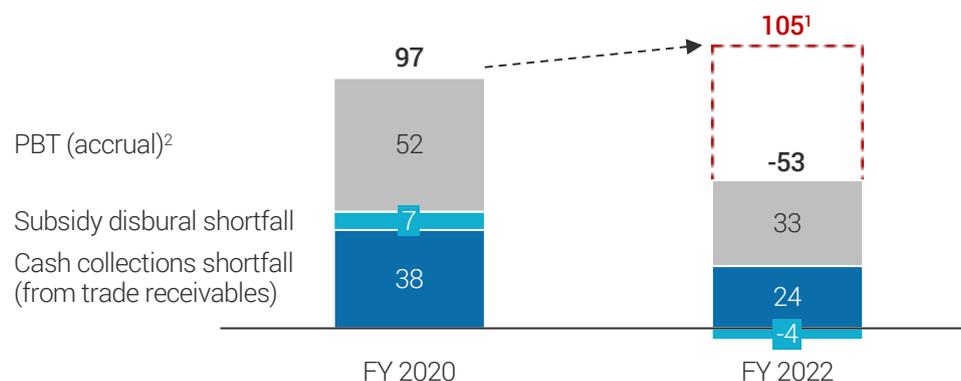
<sup>12</sup> TSNPDCL, and TSSPDCL have received Non-tariff Subsidy amount (UDAY loss takeover subsidy pertaining to last 4 years) of ~INR 2,700 crore and ~INR 6,200 crore respectively in June 2022, which has not been considered in FY22 financials

It is important to note that the extent of these losses would have been much higher had sector performance not improved in FY22. If the gross input energy of FY22 was purchased with the ACS-ARR gap as high as that in FY21 (89 paise), then the absolute cash adjusted gap would have been 1.05 lakh crore (versus the INR 53,000 crore recorded in FY 22, marking an improvement of 56 percent).

Exhibit 2

### Components that helped reduce ACS-ARR gap in FY22

INR '000 crores



1 Assuming Ceteris Paribus, -105 (INR '000 Crores) is the expected Absolute Gap of FY22 if the same ACS-ARR (in INR/kWh) continued at FY22 Gross energy volume

2 Excluding revenue grant(s) for loan-takeover

The improvement in absolute cash-adjusted gap can be attributed to:

- **Profit Before Tax (PBT):** This component represents profitability and is driven by discoms' operational performance and to some extent by state regulators (tariff revision) and state government (loss-takeover, subsidies under various schemes), etc. In FY22, PBT (excluding revenue grant under UDAY for loan takeover) improved by about INR 19,000 crore.
- **Subsidy received – subsidy booked:** State governments provide subsidy to discoms in lieu of low tariff power supplied to certain customer segments such as farmers, residential areas (i.e., tariff subsidy). In the past, states have often fallen short on disbursing the full subsidy amount, resulting in large subsidy arrears in the sector. This shortfall manifests as a cash shortage and cascades into negative impact on working capital, payables to GenCos, etc. Subsidy disbursement improved by about INR 11,500 crore.
- **Cash collections from trade receivables:** This component represents the cash shortfall/surplus on account of gross trade receivables (mainly bill collections from the customers). Many discoms in the country fall short on cash collections from the customers and have been seeing a steady rise in trade receivables – leading to a cash shortage and downstream issues in working capital management. FY22 saw an improvement of INR ~14,000 crore (i.e., 0.13 INR / kWh) from FY20. The utilities did not realize cash of INR ~38,000 crore in FY20, which got converted to trade receivables, which reduced to INR ~24,000 crore in FY22.

FY22 also had to absorb the impact of significant delays /non-issuance of tariff orders in FY21. 10 states (total 13 utilities) didn't publish tariff orders for FY22. These 13 utilities together represented about 18 percent of the sector's revenues and about 58 percent of its financial loss in FY22. However, there has been significant improvement with respect to issuance of FY23 tariff orders – with tariff orders published for all but six utilities from four states (BRPL, BYPL, TPDDL (Delhi); JBVNL (Jharkhand); IPCL (West Bengal) and Arunachal PD).

### Breakdown of ACS-ARR Gap improvement from FY20-FY22 INR/kWh

ACS – ARR gap components	FY20	FY22	Impact on ACS-ARR Gap due to increase/decrease in components from FY20 to FY22
Revenue Booked (excl. Subsidy)	4.59	4.72	0.13
Subsidy Disbursed <sup>2</sup>	1.01	1.35	0.34
Power procurement cost	-4.69	-4.77	-0.08
Other expense <sup>2</sup>	-1.40	-1.52	0.26 <sup>3</sup>
Collections (cash adjustment)	-0.31	-0.18	0.13
<b>ACS-ARR Gap (cash adjusted)</b>	<b>-0.79</b>	<b>-0.40</b>	<b>0.39</b>

1 Other Expense = Total Pre-Tax Expenditure, excluding Power Procurement Cost

2 Subsidy Disbursal is excluding revenue grant for loan takeover

3 Net PBT improvement is also driven by government subsidy

#### 4.1.1 Improving PBT

A deep dive into operational performance shows that the improvement in PBT (excluding revenue grant under UDAY for loan takeover) of INR 19,000 crore over FY20-FY22 was driven by increase in 'non-tariff subsidy booked', which also increased by INR 19,000 crore during the same period. The increase in non-tariff subsidy was driven by disbursements under various government schemes such as UDAY, etc. Non-tariff subsidy represents subsidies disbursed under various central or state schemes for supporting financially weak discoms. It is distinct from tariff subsidy, wherein the state governments reimburse the discoms in lieu of subsidized tariffs offered for certain end-customers (for e.g., farmers, low-income groups).

Notably, the PBT can be improved further through improvements in billing efficiency. However, billing efficiency in the sector was stagnant over FY20-FY22, as covered in more detail in Section 4.2. Other factors impacting the PBT are already accounted by the regulator in the tariff setting exercise, and hence have marginal resultant impact on PBT.

## 4.1.2 Higher subsidy disbursal

Improvement in subsidy disbursal was one of the biggest highlights for FY22 – **aggregate subsidy disbursement by state governments crossed 100 percent (~102 percent) of all subsidy amounts booked in FY22**. Total subsidy comprises of tariff subsidy as well as non-tariff subsidy amounts given under various central/state government schemes.

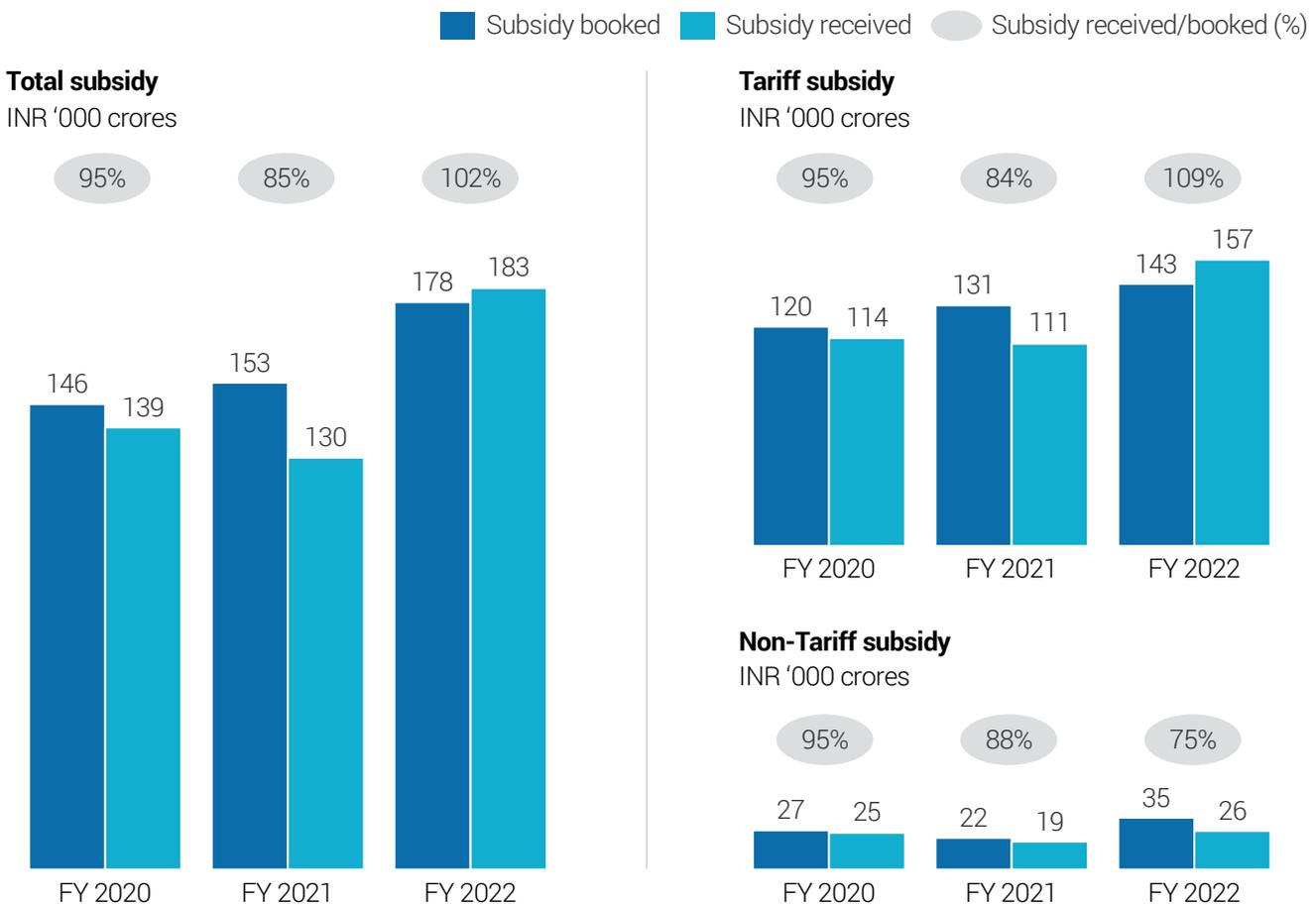
Subsidy disbursement is a parameter that has been lagging in the power distribution sector over the past few years. Even in the past two years, subsidy disbursement was below par – 95 percent of subsidy booked in FY20 and 85 percent in FY21 – resulting in considerable subsidy arrears. Thus, achieving 100 percent subsidy disbursement was an phenomenal achievement on part of the state governments.

Of the 24 states which provide subsidies to discoms, 10 states disbursed more than 100 percent of subsidy booked (thus clearing off some of their arrears), seven disbursed 100 percent, and five disbursed more than 93 percent in FY22.

Six states showed the most improvement in subsidy disbursal: Karnataka, Rajasthan and Madhya Pradesh have shown significant jump in disbursals over FY20 levels. Maharashtra, Andhra Pradesh, Punjab saw a major dip in FY21, but have returned to FY20 levels. Disbursal for Telangana's discoms was low (~39 percent), because the UDAY subsidy booked in FY22 was received in FY23, and hence not considered in the FY22 ratings.

Exhibit 4

### Trend in subsidy disbursement for FY20 to FY22





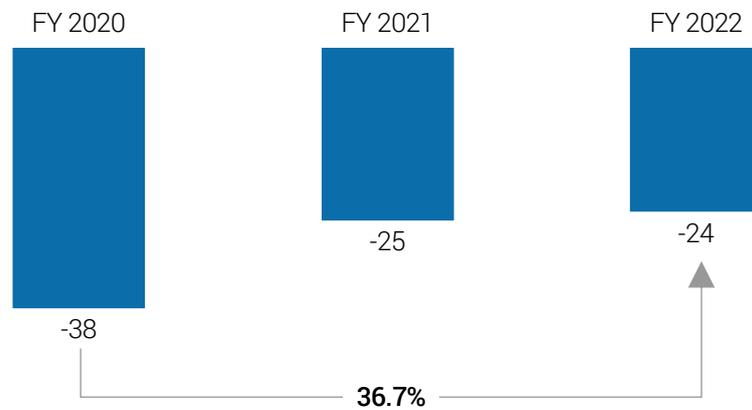
### 4.1.3 Improving trade receivables collections

Increasing trade receivables in the sector underlines the issue of revenue increasingly accumulating with debtors instead of being paid out to the discoms. This shortfall in cash collection is captured directly as 'cash-adjustment' in the calculation of absolute gap.

However, negative cash adjustment improved by ~37 percent to INR -24,000 crore in FY22 from FY20, highlighting a positive trend in the sector. This was largely driven by discoms improving their collection processes through easier payment methods (including digital payments), quick turn-around in bill generation, early payment discounts, increasing awareness among customers (especially rural) for bill payments, etc.

Exhibit 6

**Trend in Cash Collection Shortfall (of Gross Receivables) for FY20 to FY22**  
INR '000 crores



## 4.2 Improvement in Aggregate Technical and Commercial (AT&C) losses

**AT&C losses have reduced to 16.5 percent in FY22; significantly lower than 19.9 percent in FY20 and 21.5 percent in FY21** AT&C losses were considerably high in FY21, as COVID-19 adversely impacted both billing and collection efficiencies. However, the AT&C losses reduced by ~3 percent even when compared to pre-pandemic level (FY20).

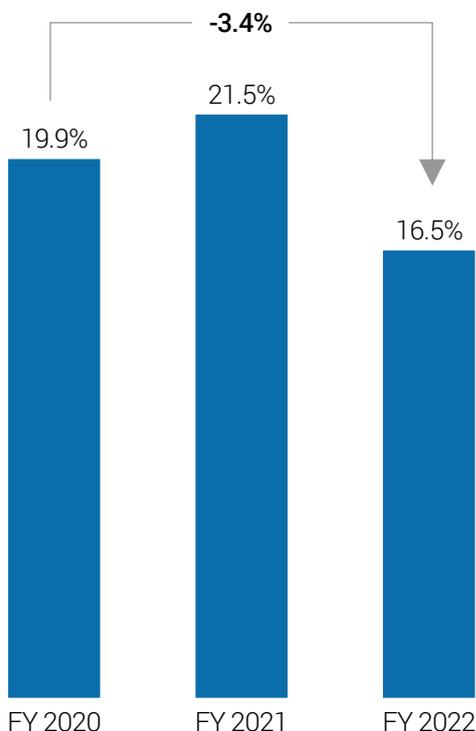
The break-down of AT&C trends, indicates that the improvement has been driven by collection efficiency, which improved from 93.1 percent in FY20 to 97.2 percent in FY22. On the other hand, Billing efficiency has remained unchanged at 85.9 percent during the same period.

Twenty five states/UTs have exhibited an improvement in AT&C losses. Billing efficiency improved by more than 3 percent over FY20-FY22 for 5 discoms: SBPDCL, TSECL, UHBVNL, MPMKVVCL and WBSEDCL. Collection efficiency improved by more than 5 percent for 18 discoms.

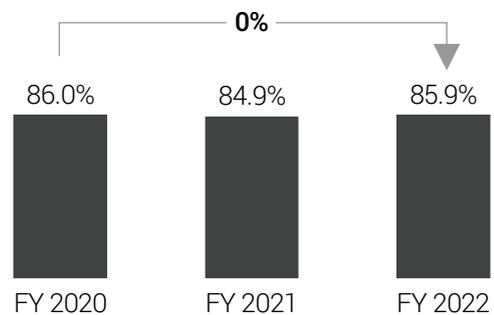
Exhibit 7

**Trends in AT&C losses, Billing efficiency and Collection efficiency for FY20 to FY22**  
Percent

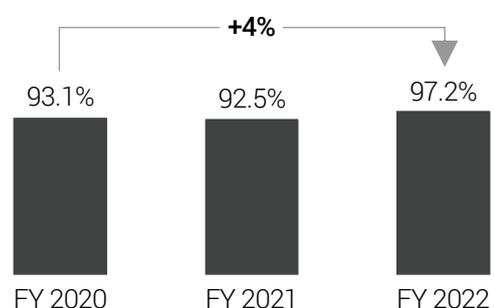
### AT&C losses



### Billing efficiency



### Collection efficiency

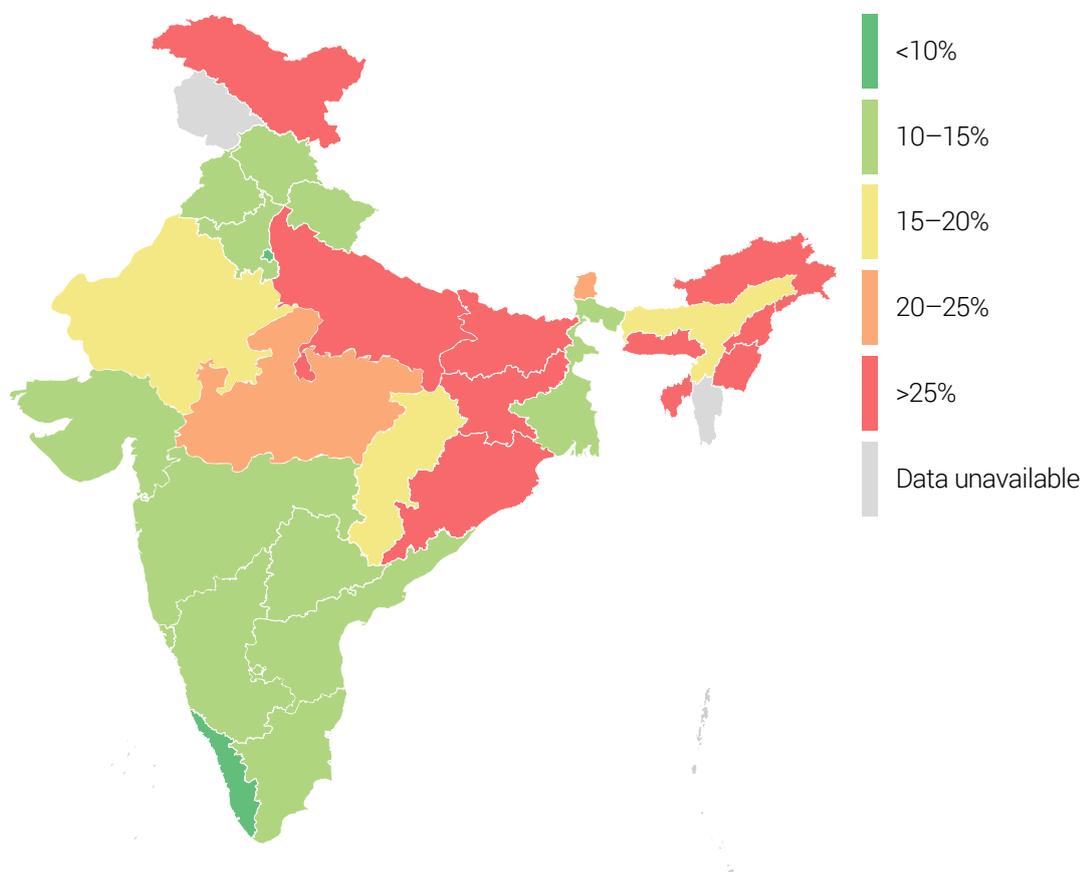


Top 10 DISCOMs with highest improvement in AT&C losses as compared to FY20 levels

Utility	State	FY20			FY22			AT&C % increase
		Billing efficiency	Collection efficiency	AT&C %	Billing efficiency	Collection efficiency	AT&C %	
TSNPDCL	Telangana	91%	71%	35%	91%	94%	14%	-21%
JdVVNL	Rajasthan	81%	77%	38%	78%	100%	22%	-16%
SBPDCL	Bihar	72%	72%	48%	78%	83%	35%	-13%
DVVNL	Uttar Pradesh	79%	77%	40%	74%	96%	29%	-11%
JVVNL	Rajasthan	83%	87%	28%	83%	100%	17%	-11%
MPMKVVCL	Madhya Pradesh	72%	87%	37%	77%	96%	26%	-11%
CHESCOM	Karnataka	89%	88%	22%	89%	100%	11%	-10%
AVVNL	Rajasthan	86%	91%	22%	87%	100%	13%	-9%
MPPaKVVCL	Madhya Pradesh	89%	89%	21%	88%	100%	12%	-9%
UHBVNL	Haryana	81%	98%	21%	86%	100%	14%	-7%

Exhibit 8

**State-wise AT&C losses for FY22**  
Percent



Discoms in five states contributed to about 52 percent of national AT&C losses: Uttar Pradesh, Maharashtra, Madhya Pradesh, Rajasthan and Tamil Nadu. Of these, Rajasthan and Madhya Pradesh discoms have shown significant improvement during FY20-FY22. However, aggregate AT&C losses of Uttar Pradesh discoms remained high at 30% during the same period.

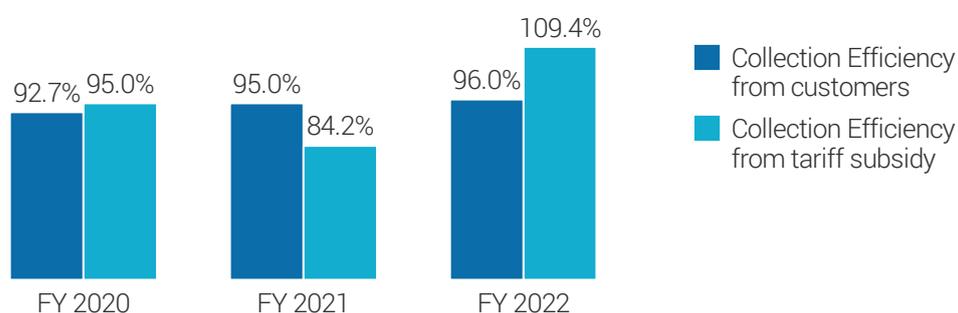
**Drivers for collection efficiency:**

**Collection efficiency improved for both subsidy and customer billing components of revenue.**

The former was a result of states disbursing more than 100 percent of tariff subsidies booked, as covered in detail in the previous sub-section. The latter, representing the cash collections as against customer billing, increased from 92.7 percent to 96.0 percent during FY20-FY22. This points towards a very encouraging trend in the sector, as it was a result of discoms' efforts in adopting better processes for customer collections.

Exhibit 9

**Bifurcation of Collection efficiency for FY20 to FY22**  
Percent



**Scope for improvement in billing efficiency**

Billing efficiency remained stagnant over FY20-FY22 – declining marginally to 85.9 percent in FY22, as compared to 86 percent in FY20. There is significant scope for improving billing efficiency – 33 utilities had distribution losses higher than billing efficiency targets approved by respective State Electricity Regulatory Commissions (SERCs) in FY22.

Achieving the billing efficiency targets set by SERCs, would have reduced the sectoral loss by 33 percent to INR 36,000 crore, resulting in ACS-ARR gap to 0.27 INR / kWh in FY22. Further analysis of the data shows that achieving best-in-class billing efficiency of 92 percent could turn the sector break-even, improving the sectoral gap from the projected loss of 0.27 INR/kWh to zero.

Improvement in billing efficiency can be affected through steps to increase metering (consumer, feeder, DT), deployment of smart meters, separation of agricultural feeder, improving power factor to curb line losses, and curbing electricity theft, etc. To incentivize this, the government has implemented major initiatives, such as linking performance for RDSS grants, mandating energy audit & accounting, etc.

## 4.3 Legacy issues in the power distribution sector

The power distribution industry has made a number of notable advancements across important metrics, although there are still challenges in several areas. It is important to emphasize that these legacy problems have weighed on the industry for a while, and their resolution would require additional government support, measures from the discoms themselves and time.

- **Debt** – Debt in the sector has been mounting, largely due to financial deficit and working capital shortage (caused in turn by low subsidy disbursal and shortfall in cash collections). This is further aggravated by the increasing burden of financing costs. Center and state governments have established several schemes to takeover some of the sector's debt, most notably through the UDAY scheme. In addition, state governments are supporting the state discoms by way of taking over the loans and losses, while the centre is pushing for lending based on Additional Prudential Norms for the sector and linking lending terms to annual rating results to encourage better fiscal discipline.
- **Payables to GenCos & TransCos/days payable** – The power distribution sector suffers from high trade payables with days payable averaging 160 days nationally, as opposed to the benchmark of 45 days specified in LPS Rules, 2022. With the sector making losses and facing liquidity crunch, reducing trade payables remains challenging.
- **Trade receivables/days receivable** – Trade receivables primarily comprise customer dues and electricity duty/cess (pass-through to government). Efficient discoms' collection process, consumer payment discipline govern the extent of trade receivables recorded. Reducing them requires investment in infrastructure (metering coverage, agricultural feeder billing) as well as billing awareness.
- **Regulatory assets, subsidy arrears** – Discoms' financials depend significantly on tariff subsidy disbursals from state governments. Some states have been lagging in subsidy disbursal, leading to substantial accumulation of arrears. Further, multiple state have built significant regulatory assets. At the end of FY22, subsidy arrears and regulatory assets, stood at INR 66,000 crore and INR 1.6 lakh crore, respectively. These factors have led to direct cash shortfall for the discoms, resulting in major financial distress in the sector.

To make matters worse, COVID-19 and resulting lockdowns further impacted these parameters in FY21. Receivables increased due to impact on customer billings and payments, payables rose on significant financial loss and mounting receivables, while debt mounted due to the combined impact of all these factors. This set up a challenging precedent for FY22, which is why positive trends in all legacy issues was a notable achievement.

### 4.3.1 Sectoral debt

#### Debt increased by INR 34,000 crore in FY22 compared to INR 86,000 crore in FY21, DSCR turned positive

The total sectoral debt rose by 24 percent, from INR 5.01 lakh crore in FY20 to INR 6.20 lakh crore in FY22. However, the pace of debt addition slowed down considerably. Sectoral debt climbed by roughly INR 33,800 crore in FY22, which is 60 percent less than the INR 85,500 crore increase in FY21. The “debt as a percentage of revenue” metric, which worsened from 71 percent in FY20 to 84 percent in FY21 then improved back to 77 percent in FY22, also reflecting this progress.

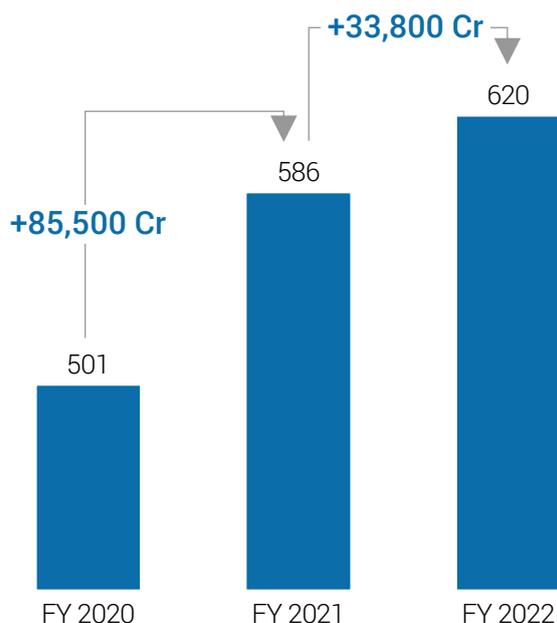
The sector’s Debt Service Coverage Ratio (DSCR) turned around to being positive in FY22 – driven by improving sector financials. The DSCR improved from negative 0.07 in FY20 to positive 0.43 in FY22. This positive turnaround in DSCR bodes well for the sector’s lenders, as debt serviceability remains the foremost priority for them.

Exhibit 10

#### Trend in national Debt and DSCR for FY20 to FY22

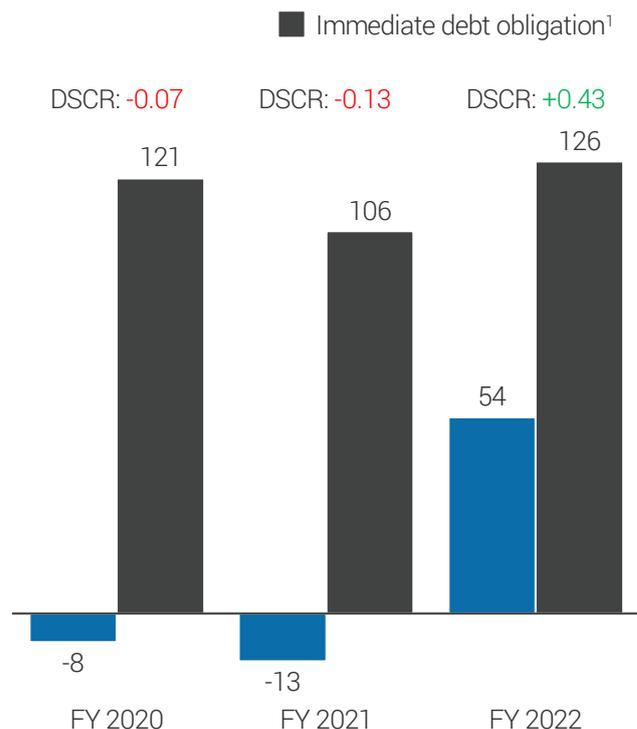
##### Total debt

INR '000 crores



##### Trend in national DSCR for FY20 to FY22

INR '000 crores

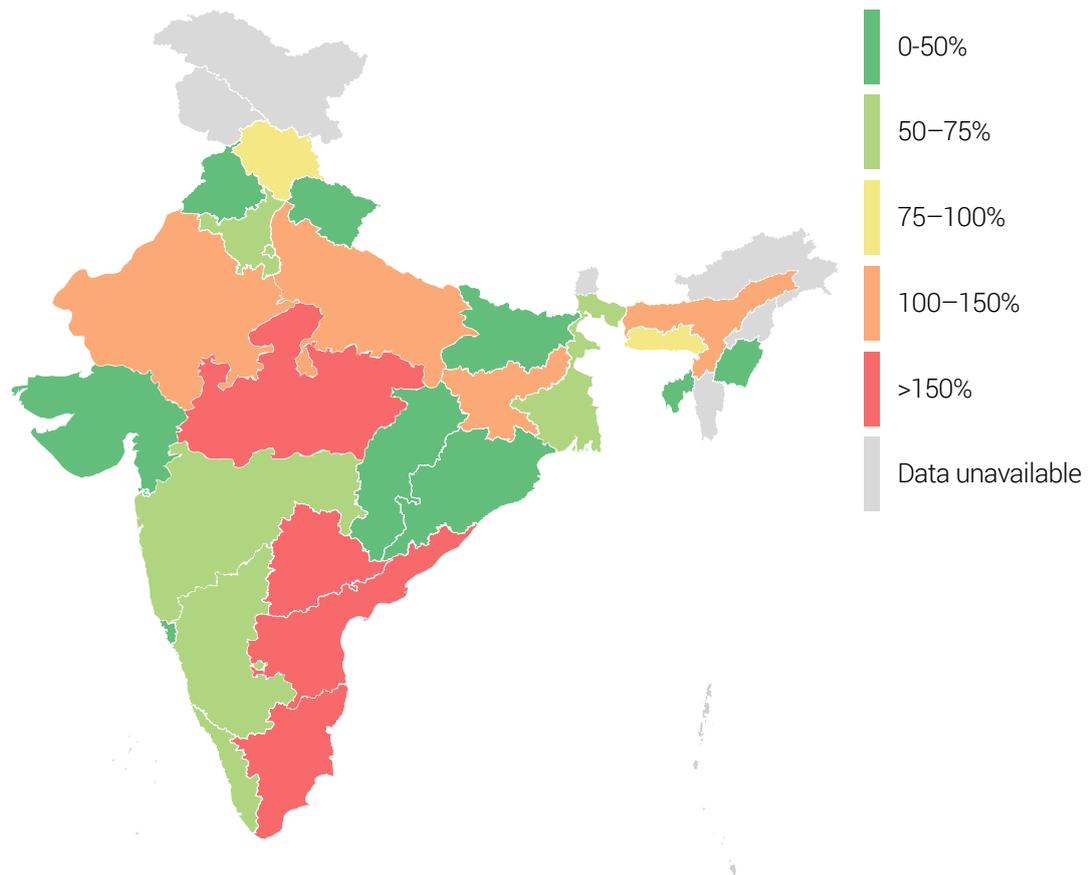


<sup>1</sup> Immediate debt obligation includes: Interest Costs + Current Maturities + Interest Accrued & Due

Discoms in four states – Tamil Nadu, Uttar Pradesh, Rajasthan and Madhya Pradesh – together held nearly 57 percent of the sector's debt.

Exhibit 11

**State-wise debt as a % of Net Fixed assets (including CWIP) for FY22**  
Percent



Equity investment (including conversion of loan-takeover subsidy) in the sector increased by INR 54,000 crore over FY20-FY22, of which state utilities infused INR 51,000 crore. This highlights an important shift in the sector, underlining state governments resolute support for their discoms.

Further, the sector observed debt addition of INR 129,000 crore (both short, long term) over FY20-FY22, with pace of debt addition slowing significantly.

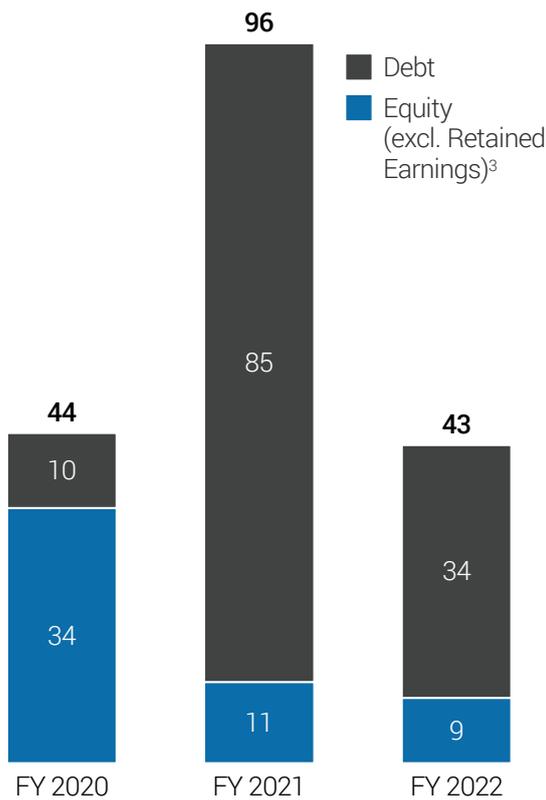
CAPEX addition was INR 60,000 crore in FY22, compared to INR 58,000 crore in FY21. The FY22 figures are excluding 4 discoms and 5 power departments for which FY22 financial were not available. Additional Working Capital requirement, reduced significantly from INR 55,500 crore in FY21 to INR 19,000 crore in FY22.

Exhibit 12

**Trend in debt, gross CAPEX and additional working capital requirement<sup>4</sup>**

**Sources of Capital**

**Increase in debt**  
INR '000 crores



**Investment of Capital**

**Gross CAPEX deployment<sup>2</sup>**

INR '000 crores



**Additional working capital<sup>1</sup> requirement**

INR '000 crores



**Capital surplus from change in Retained Earnings (excluding Depreciation) and Non-current liabilities**

<sup>1</sup> Working Capital = Current Assets - Current Liabilities (excluding Short Term Loans)

<sup>2</sup> Includes Capital WIP, Capital advances to contractors

<sup>3</sup> Equity (excl. Retained Earnings) = Share Capital, Share Application Money Pending Allotment

<sup>4</sup> FY 2022 figures shown above are based on data of 62 utilities, as financial of 4 discoms and 5 PDs were not available. These include Torrent Power Surat, Torrent Power Ahmedabad, Puducherry PD, Mizoram PD, Daman & Diu PD, Andaman & Nicobar Islands PD, Lakshadweep Islands ED, JPDCL, KPDCL.

### 4.3.2 Payables to GenCos & TransCos

Trade payables to GenCos and TransCos increased by 10.5 percent over FY20-FY22 to reach INR 2.81 lakh crore. The increase, however, was altogether driven by rising power purchase cost, as the days payable (cycle times for payments) remained constant at 163 days during this period.

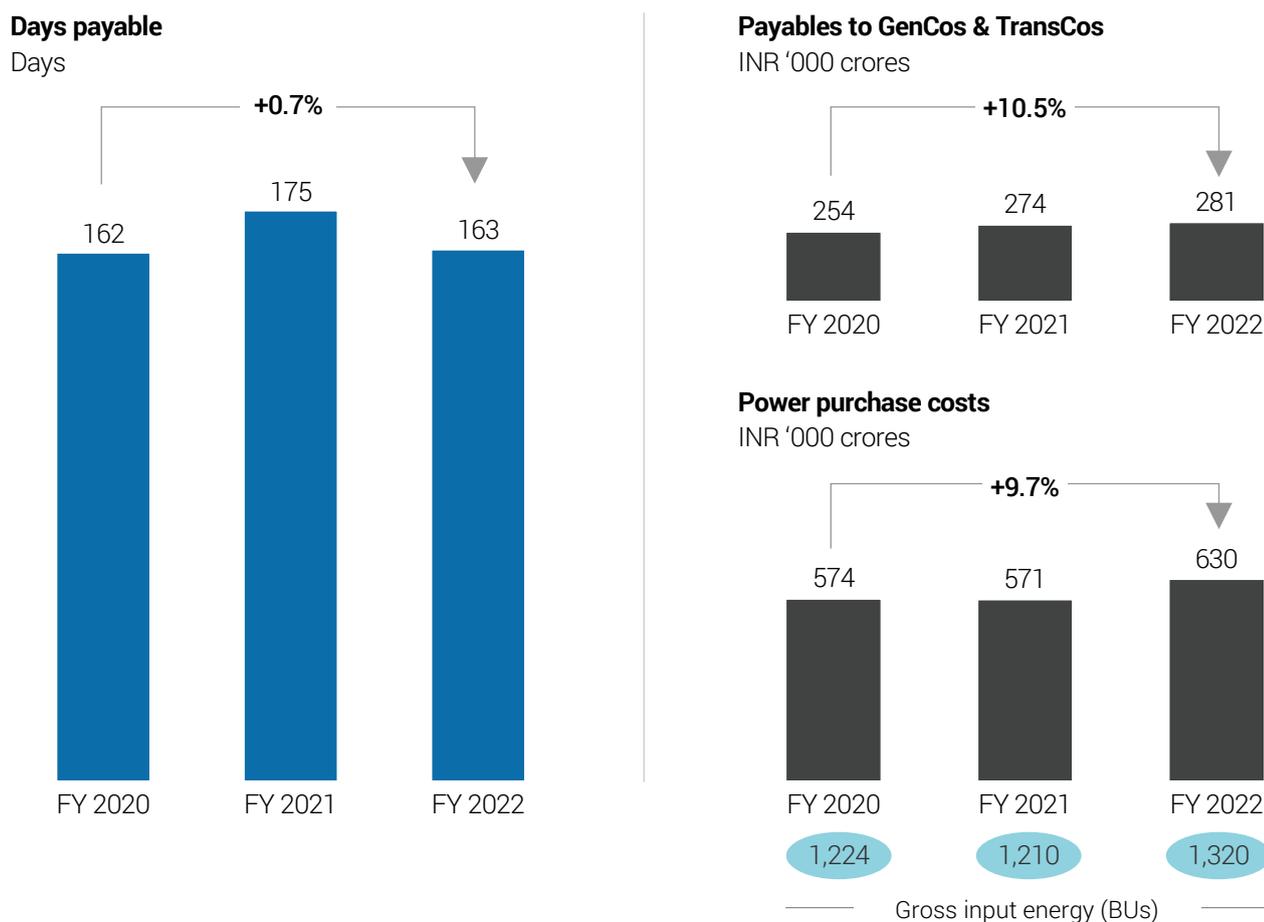
#### In FY22, the sector cleared-off accumulated payables from FY21 to reach pre-COVID-19 levels

Payables to generation and transmission companies (GenCos and TransCos) were adversely impacted in FY21, driven by significant financial losses in the sector and an increase in consumers' receivables. As a result, the days payable increased from 162 days in FY20 to 175 days in FY21. Thus, going into FY22, the sector needed to clear payables accumulated during FY21. Against this backdrop, the days payables showed a notable return to pre-COVID-19 levels of 163 days in FY22.

Despite this positive trend, days payables remain at much higher than desired levels, considering the LPS Rules, 2022 specify a timeline of 45 days for clearing bills. However, resolving these issues is challenging given that the sector is overall loss making, and customers receivables are still increasing. LPS Rules, 2022 are a major step towards resolving mounting payables – the scheme provide mechanism for settlement of outstanding dues as well as provisions to encourage distribution utilities to make timely bill payments.

Exhibit 13

#### Trend in days payables and payables to GenCos and TransCos for FY20 to FY22



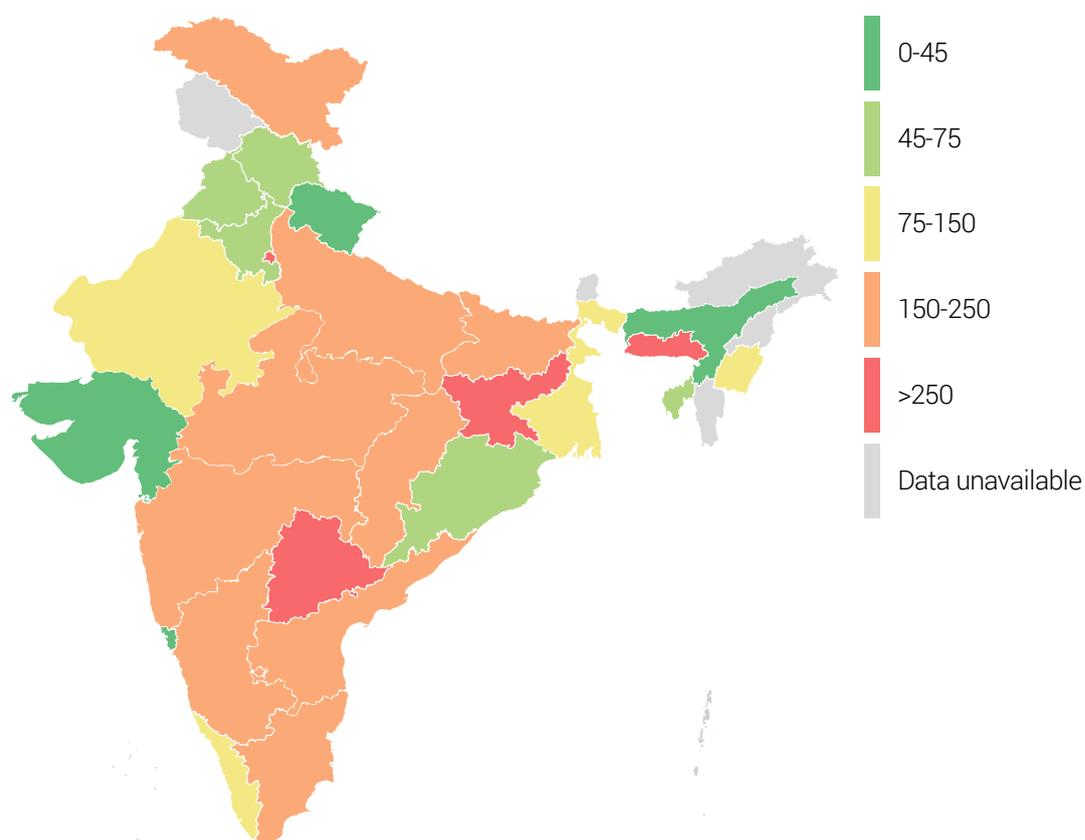
14 utilities improved their Days payable to GenCos and Transcos by more than 50 days over FY20-FY22. Meanwhile, 8 utilities saw a decline of more than 50 days in Days payable during the same period.

**10 discoms, with >250 Days payable, contributed to 40% of the country's total payables to GenCos and TransCos**

Utility	State	Days payable to GenCos & TransCos (FY22)	Payables to GenCos & TransCos (FY22)	
			Individual	As % of India's total
BYPL	Delhi	645	6,705	2.4%
JBVNL	Jharkhand	537	9,469	3.4%
TSSPDCL	Telangana	375	28,793	10.3%
BRPL	Delhi	375	7,501	2.7%
MPMKVVCL	M.P.	374	12,092	4.3%
TSNPDCL	Telangana	356	12,019	4.3%
MPPoKVVCL	M.P.	321	9,377	3.3%
PuVVNL	Uttar Pradesh	282	9,309	3.3%
MVVNL	Uttar Pradesh	263	9,942	3.5%
DVVNL	Uttar Pradesh	251	7,510	2.7%

Exhibit 14

**State-wise days payable for FY22**  
Days



### 4.3.3 Trade receivables

During FY20-FY22, trade receivables jumped by 17 percent, from INR 2.07 lakh crore to INR 2.42 lakh crore. During this period, revenue from operations also rose by about 10 percent, resulting in days receivable increasing from 134 to 142.

#### Days receivable recovered in FY22

The net trade receivables increased in FY21 even with a corresponding decrease in revenues, reflecting the adverse impact of COVID-19 on the collections. However, the sector recovered in FY22 on the back of improved collection processes by discoms, as evidenced by a surge in collection efficiency (customer billing component of revenues) and reduction in Days receivables.

Part of the receivables accumulated during FY21 were not collected in FY22, as many commercial and industrial (C&I) customers faced COVID-19 induced business disruption. This resulted in higher trade receivables in FY22 compared to FY20.

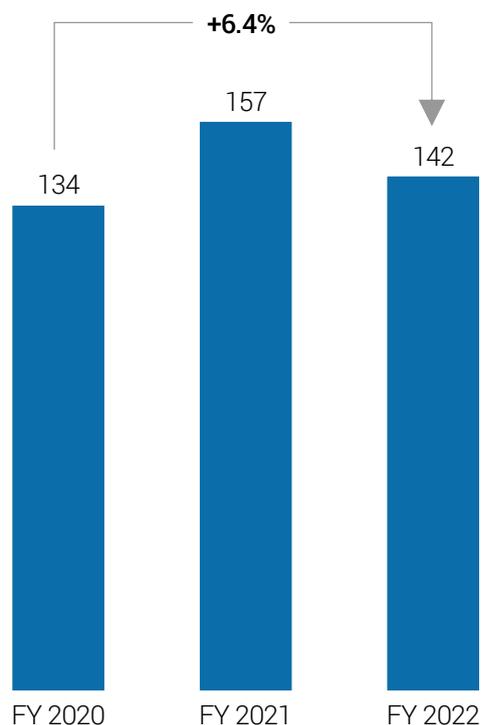
The government has taken major steps to strengthen billing cycles and to bring down trade receivables. This includes installation of smart, pre-paid meters and mandating discoms to further improve their collection process and incentivizing them with grants under RDSS.

Exhibit 15

#### Trend in days receivable and trade receivables for FY20 to FY22

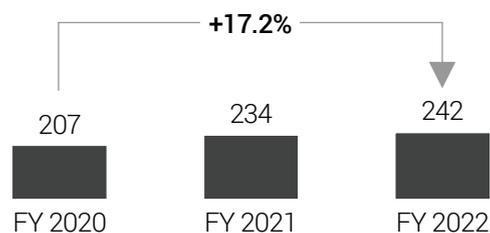
##### Days receivables

Days



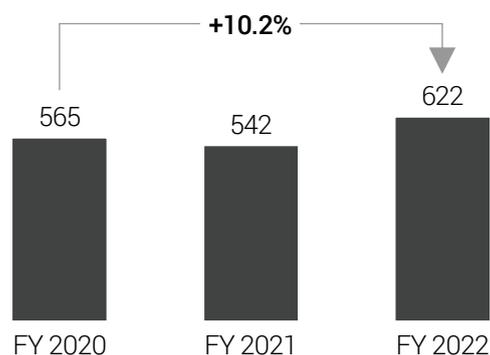
##### Net trade receivables

INR '000 crores



##### Revenue from operations

INR '000 crores



Several utilities continue to grapple with high trade receivables – there are 14 utilities in FY22, with days receivable greater than 200 days.

**Four utilities contribute to ~49% of India's Net trade receivables in FY22**

Utility	State	Days receivable (FY22)	Net trade receivables (FY22)	
			Individual	As % of India's total
MSEDCL	Maharashtra	202	46,522	19.2%
PuVVNL	Uttar Pradesh	864	31,147	12.9%
MVVNL	Uttar Pradesh	597	22,486	9.3%
DVVNL	Uttar Pradesh	596	18,060	7.5%

Overdue from state government offices continue to contribute to high trade receivables in the sector. Government dues averaged about 24 percent of the net trade receivables over FY20-FY22, without displaying any noticeable improvement. This warrants for better financial discipline among government entities to service their payments to the distribution companies on time.



### 4.3.4 State factors – subsidy arrears, regulatory assets and tariff orders

While the state governments made considerable progress in covering subsidy disbursement deficits in FY22, undissolved balances of subsidies arrears and regulatory assets continue to adversely impact the sector.

**Regulatory assets:** The power sector's regulatory assets stood at about INR 1.6 lakh crore in FY22, having remained stagnant during the previous year. This highlights the urgent need for states to make greater efforts to clear their regulatory dues through appropriate tariff increments/capital support. To address the challenge, the states are being pursued to draw up a liquidation plan for regulatory assets and non-creation of new regulatory assets going forward.

Six states – Tamil Nadu, Rajasthan, Delhi, West Bengal, Maharashtra, Kerala – contribute almost entirely to the regulatory assets challenge:

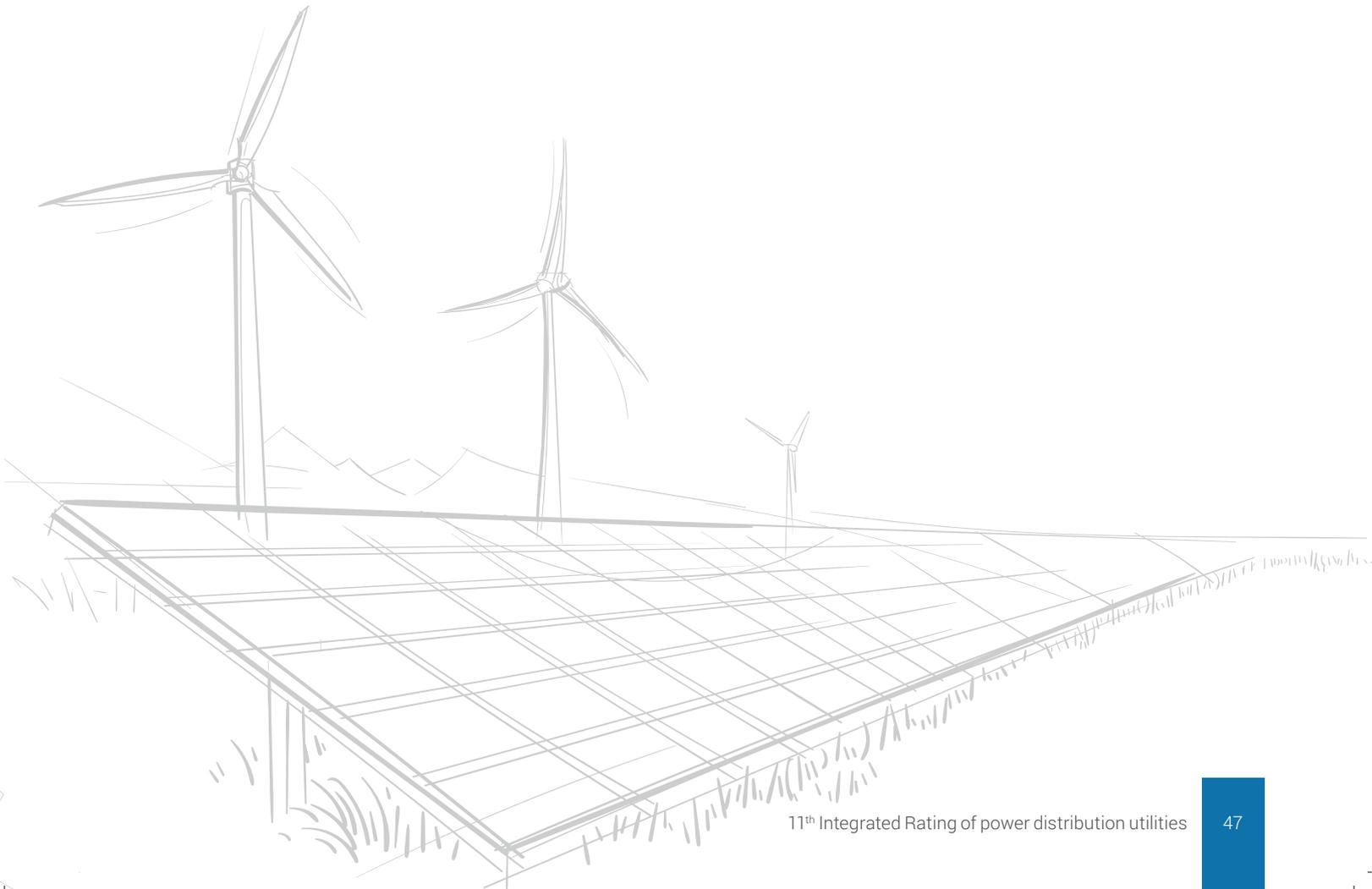
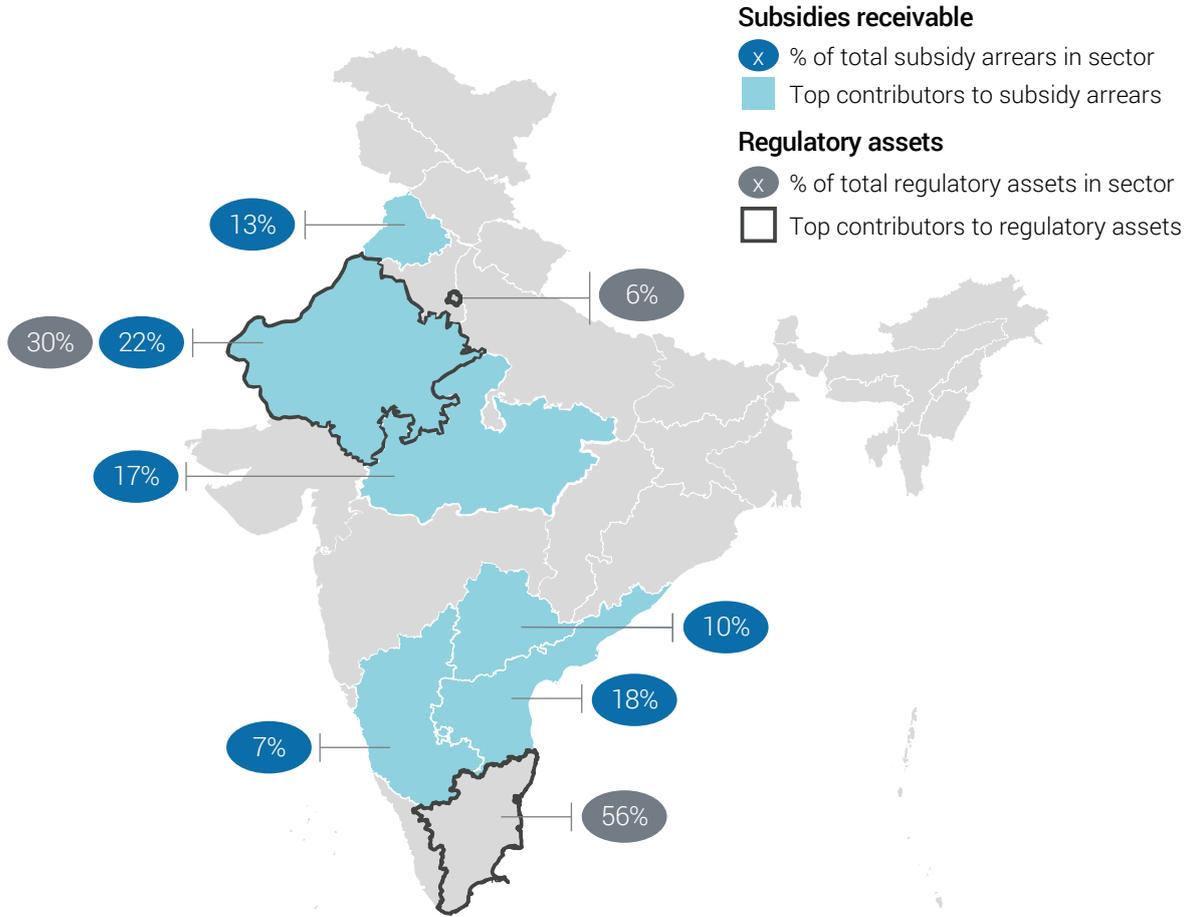
- Tamil Nadu emerged as the biggest concern. The state regulator published revised tariffs in Sep 2022. The FY23 tariff order recognized regulatory assets worth about INR 89,000 crore.
- Rajasthan's regulatory assets remained constant at INR 49,000 crore over FY21-22.
- In Delhi, the FY23 tariff orders were not released. The state had significant regulatory assets at the beginning of FY22.
- Maharashtra and Kerala showed progress in liquidation of regulatory assets.

**Subsidy Arrears:** Overall, subsidy arrears declined by 15 percent to INR 66,000 crore in FY22. Six states—Rajasthan, Andhra Pradesh, Madhya Pradesh, Punjab, Telangana, Karnataka, together account for INR 58,500 crore or 88 percent of total subsidy receivables in the sector.

**Tariff orders:** Tariff orders for FY23 are yet to be issued for 6 utilities – BRPL, BYPL, TPDDL (Delhi), JBVNL (Jharkhand), IPCL (West Bengal) and Arunachal PD. Also, true-up orders are yet to be issued for 19 utilities. Further, the issuance of tariff and true-up orders was delayed for 20 and 13 utilities respectively.

Delay or non-issuance of tariff orders hampers the recovery of costs thereby straining the utility financials.

**Top contributors to subsidies arrears and regulatory assets for FY22**  
Percent



## 4.4 Scope for improvement

The power distribution sector displayed several encouraging green shoots in FY22, including recovering from some of the shocks experienced due to COVID-19. However, there remains a long way to go to turnaround the sector. Some areas that need immediate attention include, profitability, clearing debt, improving billing process and solving for liquidity crunch. Further, revamping operations of certain discoms, which contribute heavily to the sector's financial distress, can lead to tremendous improvements for the entire industry. This section digs deeper into some of these challenges.

### 4.4.1 Enhancing sectoral liquidity

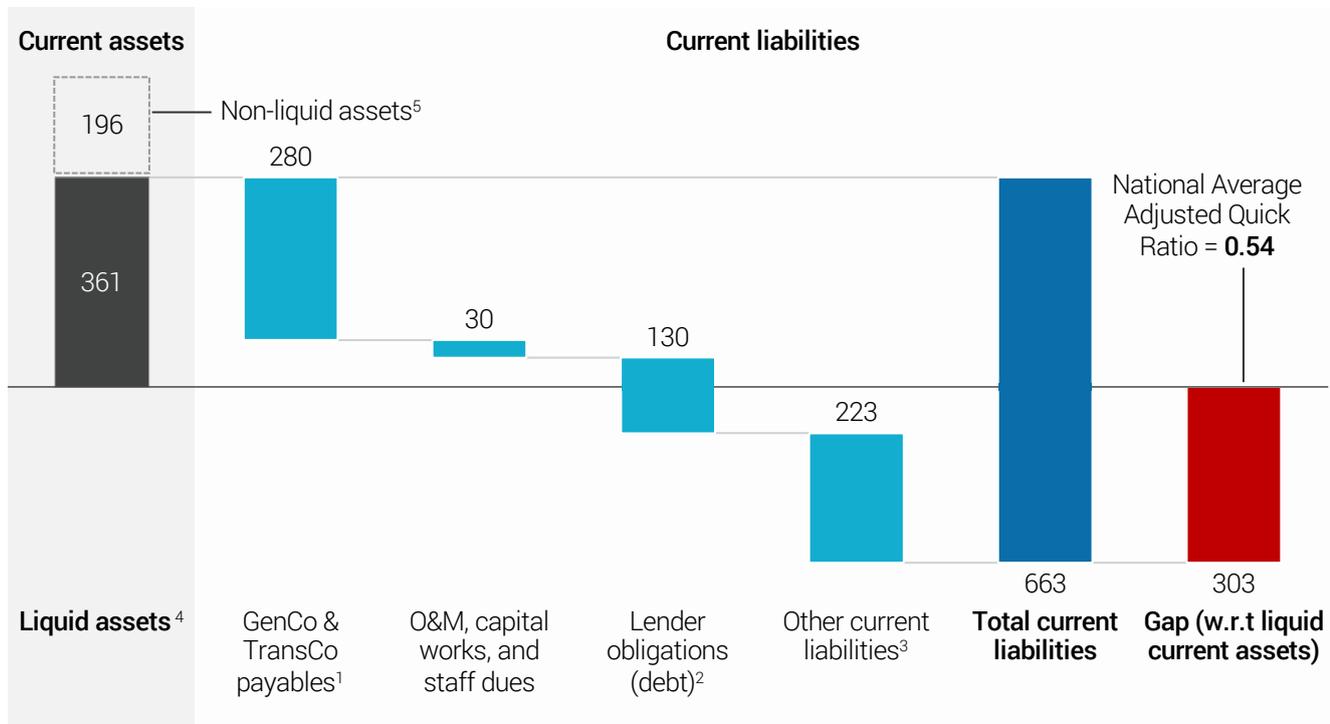
The sector continued to suffer from liquidity crunch, with discoms' current liabilities exceeding their overall current assets, and amounting to nearly twice the value of their current liquid assets<sup>13</sup>. The sector's total liquidity gap is nearly INR 3.03 lakh crore and the discoms' combined liquid assets are adequate to cover only their generation, transmission and operational liabilities. Including their non-liquid assets, their lender obligations can be covered too. However, they have even more liabilities, which cannot be covered without liquidating non-current assets or marshalling external support.

<sup>13</sup> Current liquid assets comprise cash, receivables pending for less than three months, subsidies receivable, and other liquid financial assets

Exhibit 17

#### Breakdown of Adjusted Quick Ratio components

INR '000 crores



1 Includes payables to GenCos, TransCos, Fuel Costs, Railway Receipt Costs

2 Key Components – (a) Short term loans – (b) Interest accrued & due on loans (c) Current maturities of Long-term loans – from banks / financial institutions / others

3 Includes Electricity duty/cess payable, other financial liabilities and other current liabilities

4 Key components – (a) Trade receivables <3 months old, subsidy receivables, cash and cash equivalents, unbilled revenue, market investments and other current assets

5 Key components – (a) Trade receivables >3 months, current regulatory assets, inventories, pre-paid expenses, current tax assets, and assets held for sale

## 4.4.2 Improving performance at targeted utilities

Overall, the sector has shown significant positive trends in FY22. Of the 50 discoms with 3 year financials available, 31 showed an improving ACS-ARR trajectory in FY22. These together held 48 percent of the sector's debt and 64 percent of sector's payables to GenCos & TransCos. This is a significant shift from the 10<sup>th</sup> Integrated Ratings, where only 15 utilities, holding 22 percent of sector's payables and 29 percent of sector's debt, showed an improving trajectory.

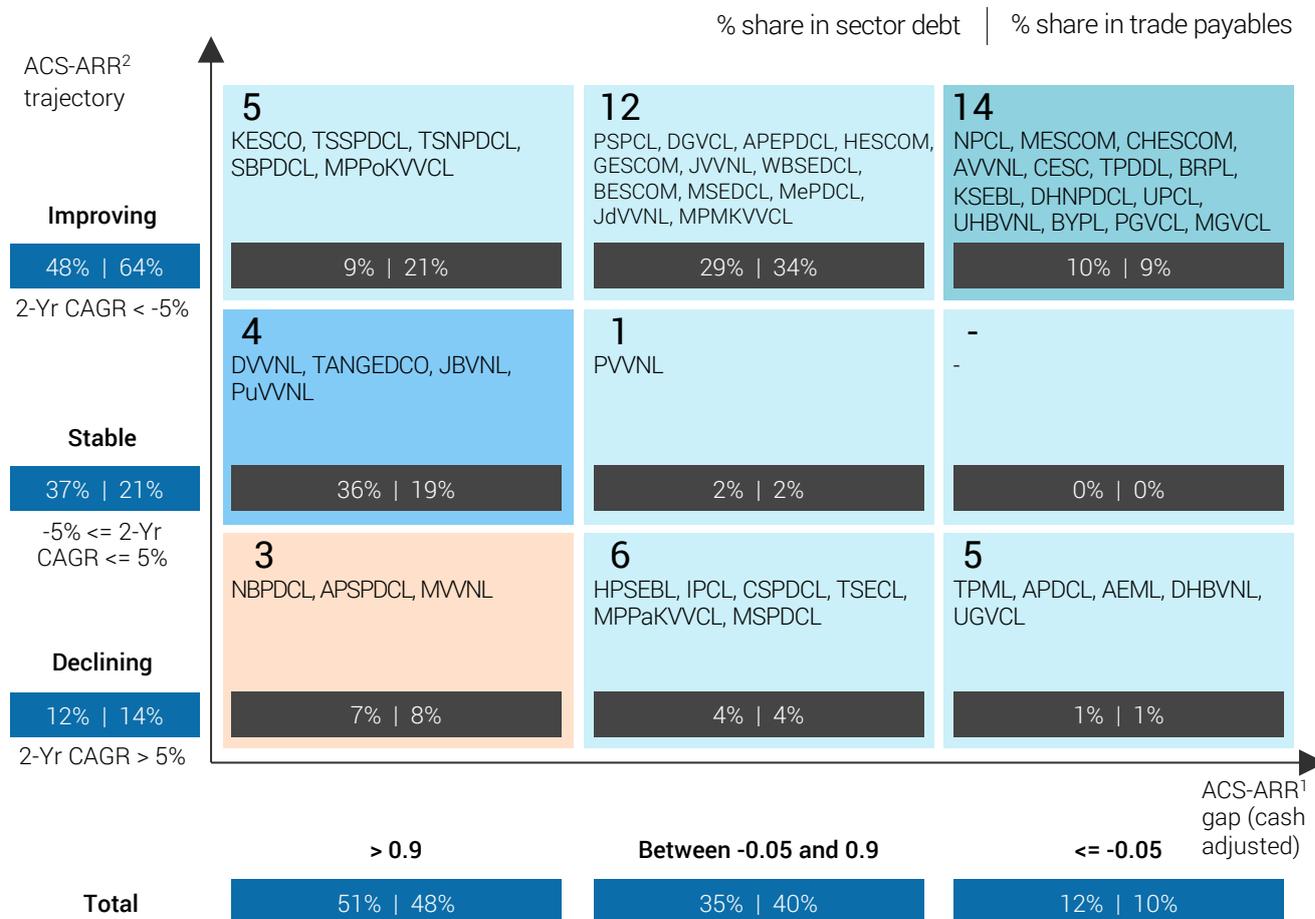
14 utilities exhibited a declining ACS-ARR trajectory in FY22. These together held 12 percent of the sector's debt and 14 percent of sector's payables to GenCos & TransCos. In comparison, 21 utilities, together holding 61 percent of sector's payables and 53 percent of sectors' debt exhibited a declining trajectory in FY21 in the 10<sup>th</sup> Integrated Ratings.

Within these, three are in critical state and could be focused on for performance improvement:

- MVVNL – ACS-ARR gap (2.15 INR / kWh), holds 3 percent of sector debt, 4 percent of sector payables
- APSPDCL – ACS-ARR gap (1.06 INR / kWh), holds 3 percent of sector debt, 3 percent of sector payables
- CSPDCL – ACS-ARR gap (0.40 INR / kWh), holds 1 percent of sector debt, 3 percent of sector payables

Exhibit 18

### Mapping of discoms by ACS-ARR gap bracket vs ACS-ARR gap trajectory



Note: The above figures exclude Power Departments and 7 Discoms which have not completed 3 full years of operation

1 ACS-ARR Gap (cash adjusted) – weighted average values have been used

2 ACS-ARR trajectory calculated as increase / decrease of ACS-ARR gap (cash-adjusted) between FY20 and FY22

Further, there are five utilities with a stable ACS-ARR trajectory in FY22, of which following utilities could be focused on for performance improvement:

- TANGEDCO – ACS-ARR gap (1.87 INR / kWh), holds 25 percent of sector debt, 9 percent of sector payables
- PuVVNL – ACS-ARR gap (1.84 INR / kWh), holds 5 percent of sector debt, 3 percent of sector payables
- DVVNL – ACS-ARR gap (1.44 INR / kWh), holds 3 percent of sector debt, 3 percent of sector payables
- JBVNL – ACS-ARR gap (1.86 INR / kWh), holds 3 percent of sector debt, 3 percent of sector payables



## 4.5 Policy initiatives to support the sector

The Ministry of Power has implemented a variety of schemes and initiatives to reinvigorate the sector over the last decade. The most significant among these has been the **Revamped Distribution Sector Scheme (RDSS)**. Launched in July 2021 with an outlay of INR 3.03 crore available till FY25–FY26, RDSS is a reforms-based and results-linked scheme that aims to reduce pan-India AT&C losses to 12–15 percent (from the current 21.5 percent) and bring down the ACS-ARR gap to zero. For availing funds available under this scheme, states must prequalify a set of criteria, including publishing audited financial reports, non-creation of additional regulatory assets, and upfront liquidation of dues or subsidies to discoms.

In September 2021, the Ministry also introduced new norms for discoms to become eligible for loans disbursed by the PFC and REC. These included timely availability of audited accounts, timely filing of tariff petitions and issuance of tariff orders, clearance of any pending subsidies and bills due to discoms, preparation of an ACS-ARR gap and AT&C loss improvement action plan, and zero defaults. In FY21, the Ministry also announced additional borrowing permissions to the extent of 0.5 percent of state GSDP. Each of these permissions is, inter-alia, linked to the reduction of AT&C losses and ACS-ARR gap for the next 4 to 5 years.

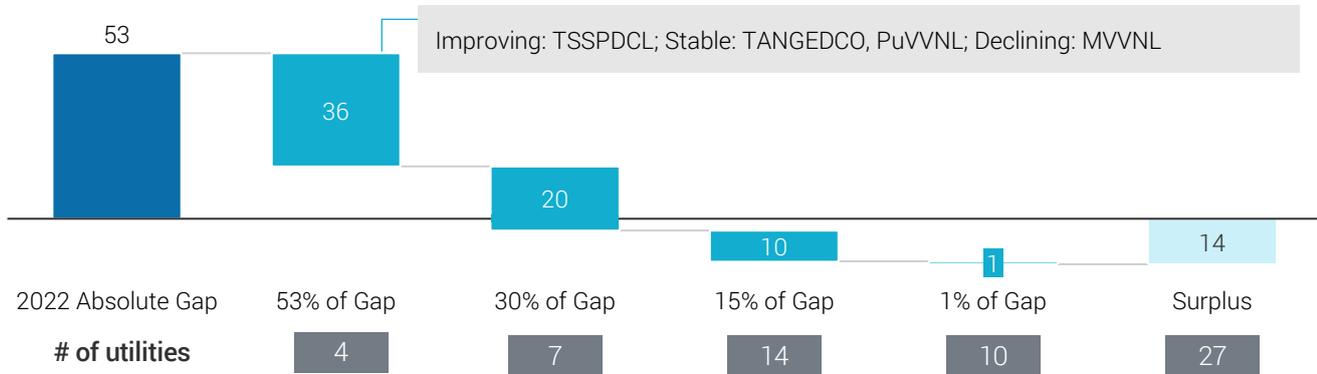
Given the focus on reducing AT&C losses and improve billing efficiency, the Ministry of Power has mandated electricity distribution companies to undertake energy accounting on periodic basis. The Manner and Intervals for Conduct of Energy Audit (Accounting) in electricity distribution companies Regulations, 2021 were issued in Oct 2021. As per the regulations, the power distribution utilities are required to conduct quarterly energy accounting and annual energy audit through energy managers and energy auditors certified by BEE (Bureau of Energy Efficiency). This exercise could help the utilities to get a detailed understanding of technical and commercial losses in the system, identify areas of high losses, energy thefts/pilferage and accordingly plan efficiency improvement steps, prioritize intervention areas. Further, steps have been initiated under RDSS for rollout of pre-paid smart meters, smart Distribution Transformer (DT) metering, communicable feeder meters, and one time 100 percent customer indexing exercise in a bid to automate the energy accounting exercise.

In June 2022, the Ministry released Late Payment Surcharge and Related matters Rules, 2022 to tackle the mounting payables to GenCos and TransCos. The rules provisioned for converting discoms' outstanding dues to GenCos & TransCos into Equated Monthly Installments (EMIs) for gradual liquidation of these dues. Further, to promote timely payment of current power bills, the power supply would be regulated for discoms which fail to clear their bills one month after the due date of payment or two and half months after the presentation of bill by the generating company.

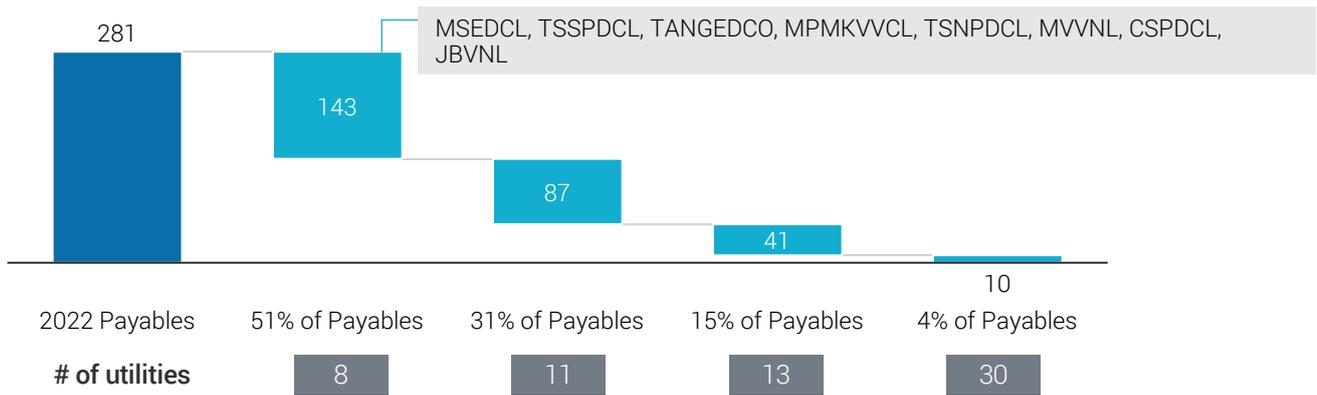
Further, the PFC and REC, have linked the performance in Annual Integrated Ratings to their lending terms. The Ministry has also launched **a dashboard called Urja DRISHTI (Discom Rating for Integrated Solvency, Health and Transparency Improvement)**, accessible at [urjadrishti.com](http://urjadrishti.com), to capture the insights emerging from 11<sup>th</sup> Integrated Rating Exercise. Urja DRISHTI will increase transparency in the sector, help discoms benchmark themselves with their counterparts in other states, and identify their strengths and weaknesses. This knowledge can position them to better their performance by drawing up an action plan specific to their needs.

**Break-up of sectoral challenges by top contributing discoms**

**Number of utilities vs % contribution to sectoral Absolute Gap ('000 crores)**



**Number of utilities vs % contribution to sectoral Payables ('000 crores)**



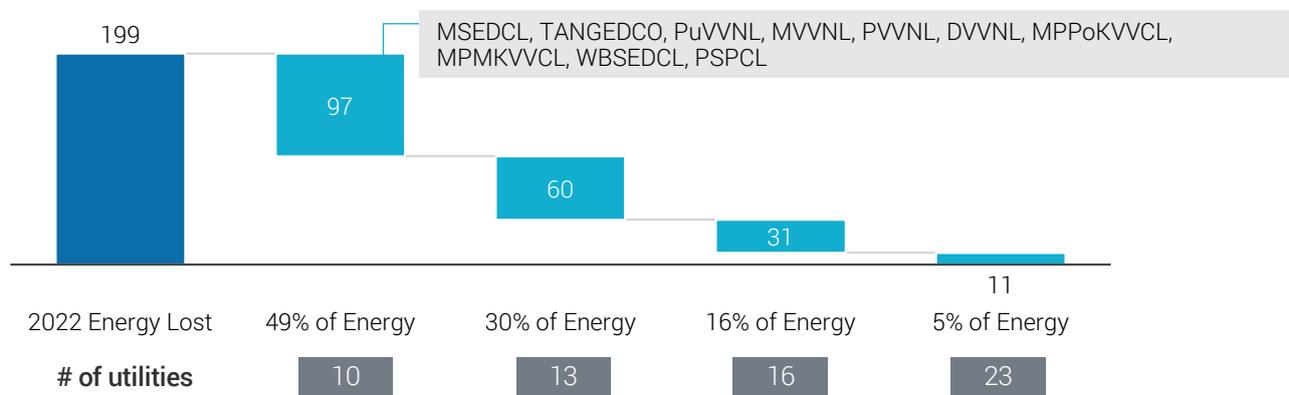
**Number of utilities vs % contribution to sectoral liquidity Gap ('000 crores)**



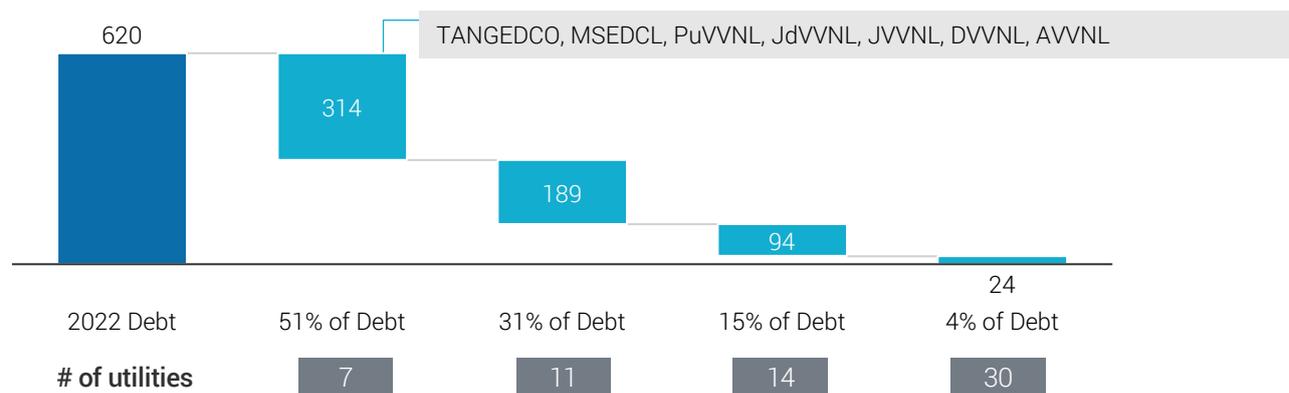
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### Break-up of sectoral challenges by top contributing discoms

#### Number of utilities vs % contribution to sectoral Energy Lost ('000 MUs)

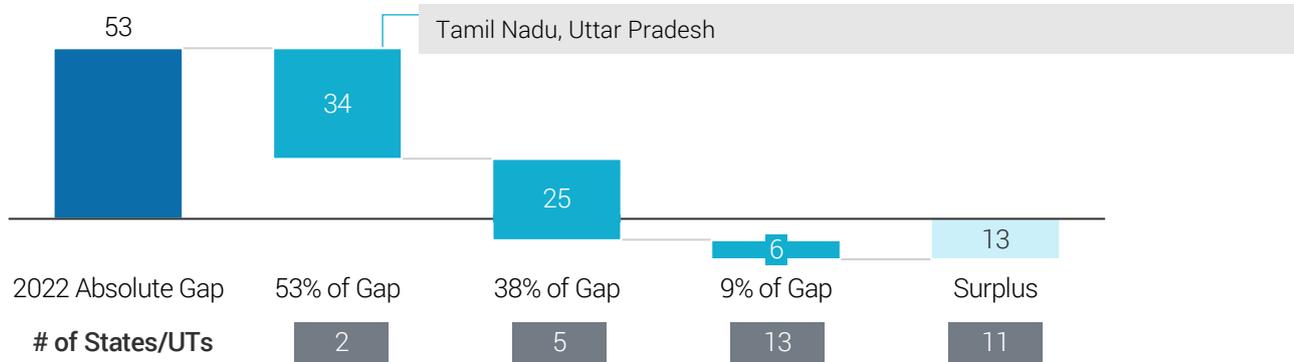


#### Number of utilities vs % contribution to sectoral Debt ('000 crores)

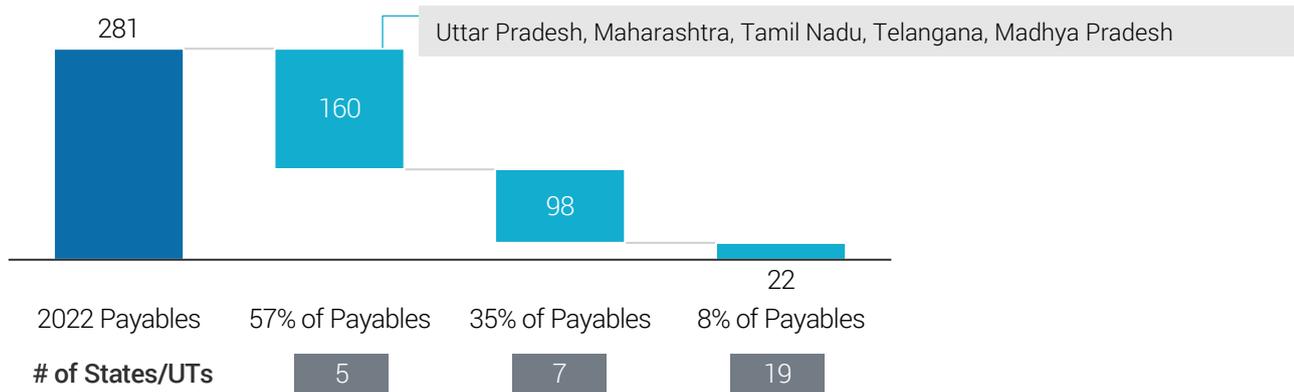


**Break-up of sectoral challenges by top contributing states**

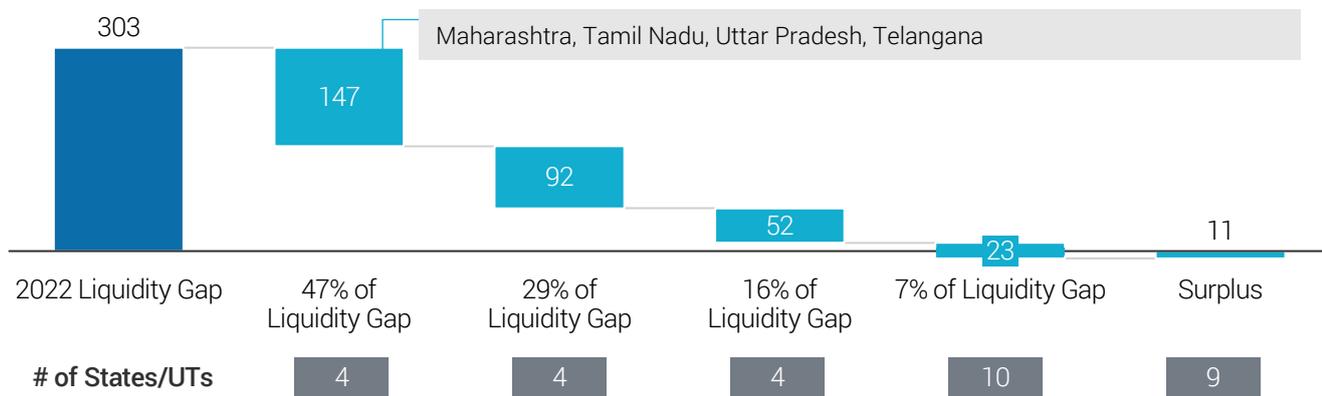
**Number of states/UTs vs % contribution to sectoral Absolute Gap (INR '000 crores)**



**Number of states/UTs vs % contribution to sectoral Payables (INR '000 crores)**



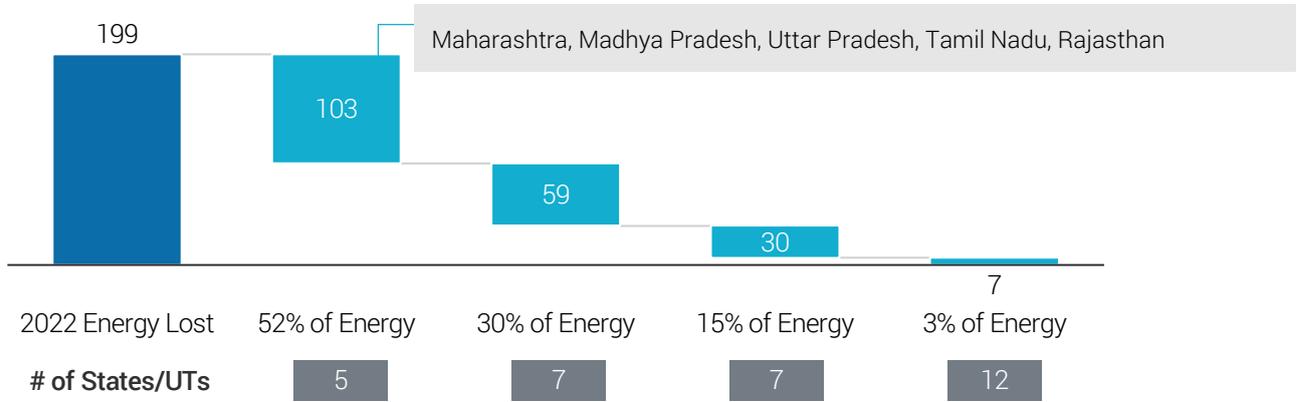
**Number of states/UTs vs % contribution to sectoral liquidity Gap (INR '000 crores)**



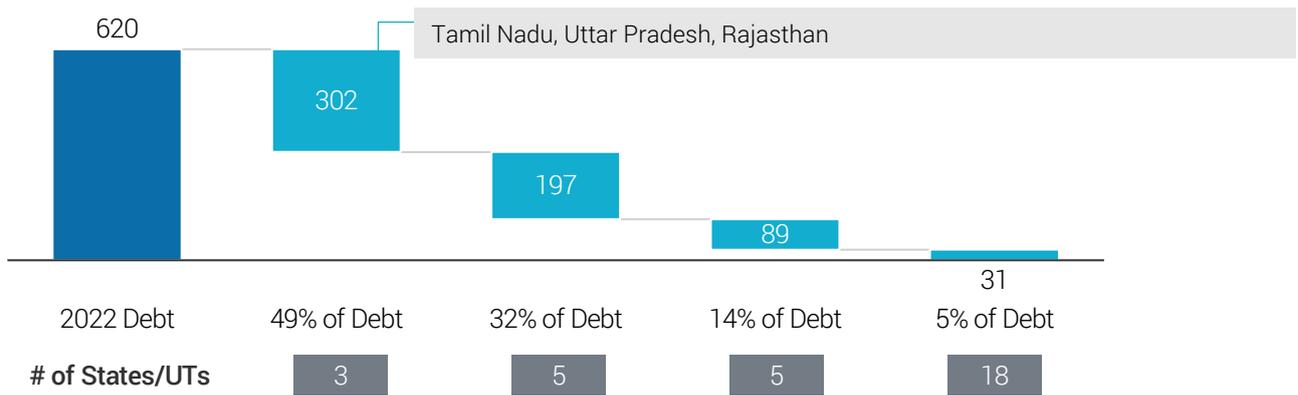
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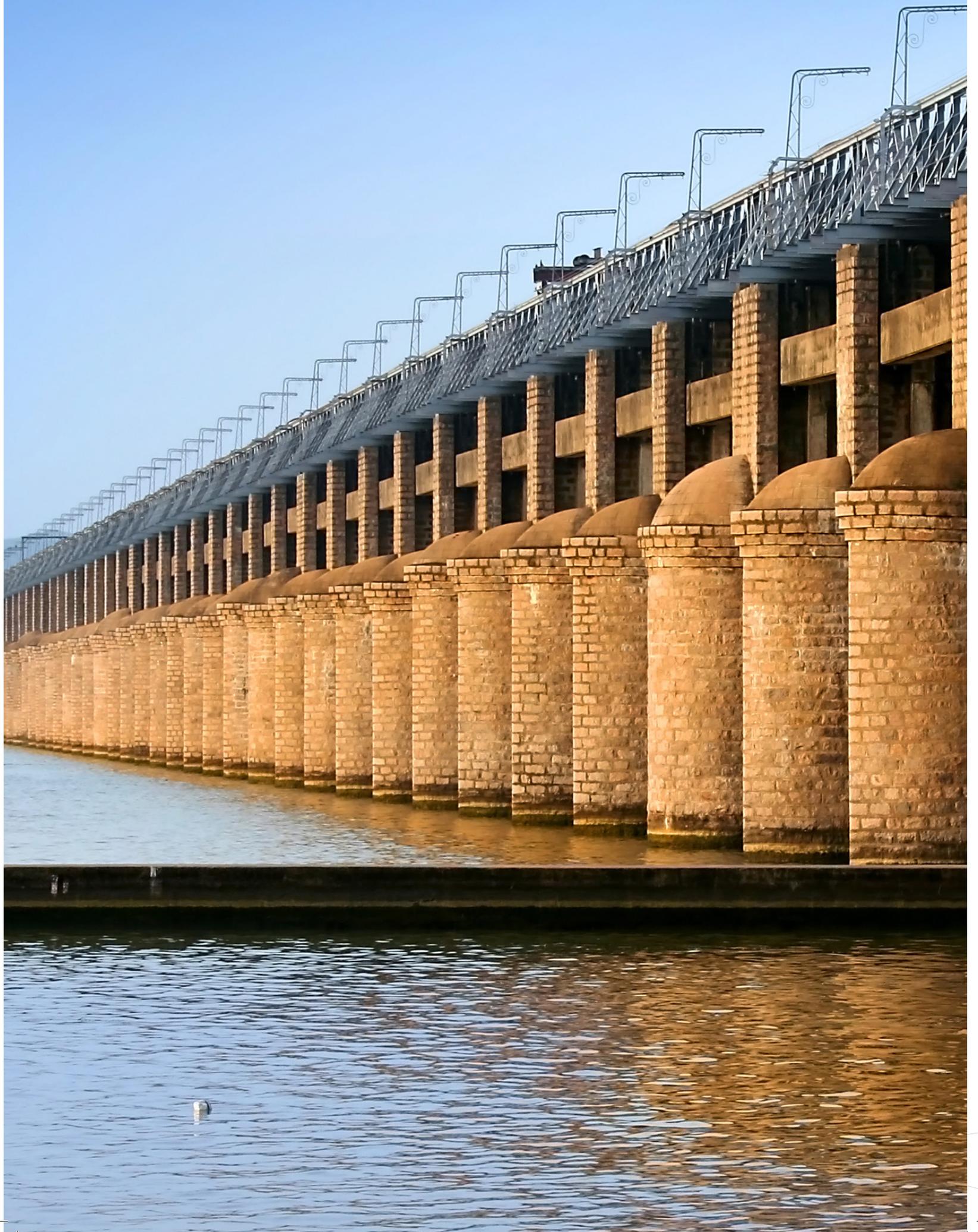
### Break-up of sectoral challenges by top contributing states

Number of states/UTs vs % contribution to sectoral Energy Lost ('000 MUs)



Number of states/UTs vs % contribution to sectoral Debt (INR '000 crores)





# 05

## Comparison with 10<sup>th</sup> Integrated Rating Exercise

The 11<sup>th</sup> Integrated Rating Exercise uses the same rating framework as its predecessor, allowing stakeholders to easily compare overall sector and utilities' performance and gain insight into major drivers. Some overarching highlights include:

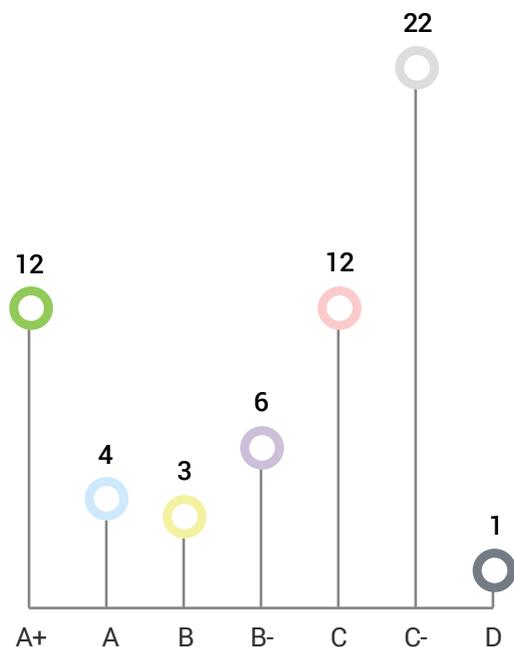
- Of the 57 discoms covered in 11<sup>th</sup> Integrated Ratings, 46 saw improved scores
- Of the remaining 11, seven saw their integrated score fall by less than 3 points
- 24 discoms saw grades improve, whereas only one discom has been downgraded from 10<sup>th</sup> to 11<sup>th</sup> ratings

Consequently, the number of discoms awarded C or lesser grade (C-, D) have reduced from 35 to 21 in the 11<sup>th</sup> ratings.

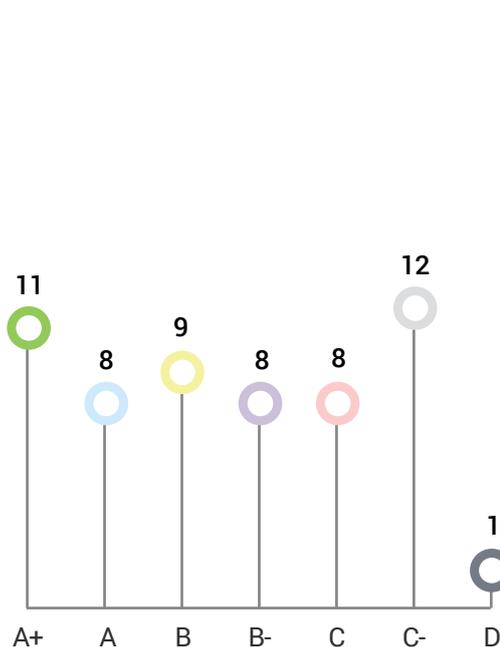
Exhibit 1

**State and Private discoms: Comparison of grades in 10<sup>th</sup> and 11<sup>th</sup> ratings**

**10<sup>th</sup> ratings (60 utilities)**



**11<sup>th</sup> ratings (57 utilities)**

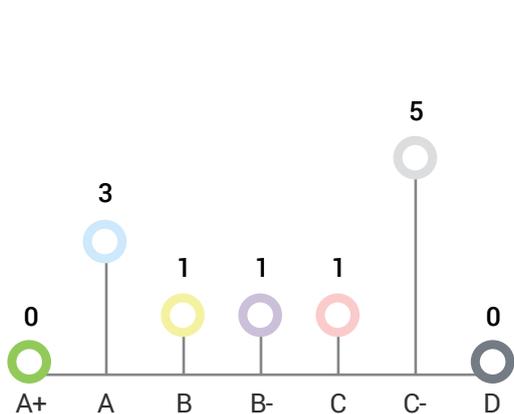


Note: 11<sup>th</sup> ratings excludes the following discoms - Torrent Power Ahmedabad, Torrent Power Surat and Ladakh (considered as PD)

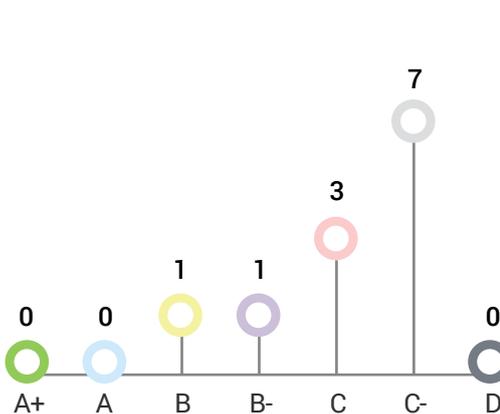
Exhibit 2

**Power departments: Comparison of grades in 10<sup>th</sup> and 11<sup>th</sup> ratings**

**10<sup>th</sup> ratings (11 power departments)**



**11<sup>th</sup> ratings (12 power departments)**



Note: 11<sup>th</sup> ratings includes Ladakh as PD

A comparison of rankings from both years (as seen above) highlights cash adjusted ACS-ARR Gap as the biggest contributing factor for rise or fall in ratings. ACS-ARR gap carries a weightage of 35 points (out of 100) for discoms and 55 (out of 100) for the power departments. Further, change in ACS-ARR gap has significant downstream impact on parameters such as DSCR, leverage, and subsidy booked/realized, considering the factors that affect ACS-ARR also affect these metrics.

## 5.1 11<sup>th</sup> vs 10<sup>th</sup> ratings: Grade and score snapshot

### A. State and Private Discoms

10 <sup>th</sup> rank	11 <sup>th</sup> rank	Utility	State/UT	Ownership	10 <sup>th</sup> ratings score	11 <sup>th</sup> ratings score
6	1	AEML	Maharashtra	Private	93.4   A+	99.6   A+
4	2	UGVCL	Gujarat	State	94.9   A+	99.1   A+
2	3	MGVCL	Gujarat	State	98   A+	97.6   A+
3	4	DNHPDCL	Dadra & Nagar Haveli	State	96.7   A+	96.6   A+
8	5	PGVCL	Gujarat	State	91   A+	94   A+
1	6	DGVCL	Gujarat	State	99.4   A+	93.8   A+
7	7	NPCL	Uttar Pradesh	Private	92.3   A+	93.3   A+
11	8	TPML	Maharashtra	Private	88   A+	89.7   A+
12	9	DHBVNL	Haryana	State	85.7   A+	89.3   A+
14	10	UHBVNL	Haryana	State	74.7   A	87.6   A+
16	11	PSPCL	Punjab	State	62.3   B	83.8   A
17	12	UPCL	Uttarakhand	State	55.6   B	81.7   A
13	13	TPDDL	Delhi	Private	81.5   A	79   A
19	14	APDCL	Assam	State	44.9   B-	74.5   A
23	15	MESCOM	Karnataka	State	34.5   C	73.9   A
15	16	CESC	West Bengal	Private	71.2   A	73.5   A
10	17	IPCL	West Bengal	Private	89.8   A+	71.4   A
43	18	CHESCOM	Karnataka	State	5.6   C-	62.5   B
27	19	AVVNL	Rajasthan	State	21.5   C	62.1   B
25	20	KSEBL	Kerala	State	28.5   C	60.8   B
37	21	GESCOM	Karnataka	State	8.6   C-	59.9   B
50	22	APEPDCL	Andhra Pradesh	State	11.3   C-	57.8   B
18	23	● HPSEBL	Himachal Pradesh	State	49.6   B-	54.1   B
31	24	HESCOM	Karnataka	State	17.6   C	50.3   B
20	25	BYPL	Delhi	Private	41.8   B-	69.1   B <sup>-2</sup>
21	26	BRPL	Delhi	Private	39.9   B-	68.8   B <sup>-2</sup>
24	27	MPPaKVVCL	Madhya Pradesh	State	31.5   C	49.98   B-
28	28	WBSEDCL	West Bengal	State	19.4   C	48.5   B-
32	29	JVVNL	Rajasthan	State	16.7   C	42.8   B-
41	30	MSEDCL	Maharashtra	State	6.9   C-	40.6   B-

10 <sup>th</sup> rank	11 <sup>th</sup> rank	Utility	State/UT	Ownership	10 <sup>th</sup> ratings score	11 <sup>th</sup> ratings score
33	31	BESCOM	Karnataka	State	11.3   C-	40.2   B-
22	32	TSECL	Tripura	State	39   B-	35.2   B-
29	33	PVVNL	Uttar Pradesh	State	18.4   C	34.3   C
26	34	CSPDCL	Chhattisgarh	State	25.1   C	27.5   C
NA	35	APCPDCL	Andhra Pradesh	State	21.6   C	25.9   C <sup>5</sup>
30	36	MSPDCL	Manipur	State	18.2   C	24.8   C
48	37	MPMKVVCL	Madhya Pradesh	State	-6.3   C-	23.4   C
47	38	MPPoKVVCL	Madhya Pradesh	State	-3.1   C-	22   C
40	39	JdVVNL	Rajasthan	State	7.7   C-	20.9   C
51	40	APSPDCL	Andhra Pradesh	State	7   C-	16.2   C
36	41	KESCO	Uttar Pradesh	State	8.6   C-	16.6   C- <sup>3</sup>
35	42	DVVNL	Uttar Pradesh	State	9.1   C-	12.3   C-
45	43	TSSPDCL	Telangana	State	2.5   C-	10.8   C-
34	44	NBPDCL	Bihar	State	9.2   C-	8.8   C-
39	45	SBPDCL	Bihar	State	8.1   C-	7.2   C-
44	46	PuVVNL	Uttar Pradesh	State	3.1   C-	7.1   C-
38	47	TSNPDCL	Telangana	State	8.6   C-	6.6   C-
42	48	MVVNL	Uttar Pradesh	State	6.3   C-	3.4   C-
46	49	● TANGEDCO	Tamil Nadu	State	-1.6   C-	-0.9   C-
49	50	● JBVNL	Jharkhand	State	-21.4   C-	-16.1   C-
52	51	● MePDCL	Meghalaya	State	-1.3   D	16.7   D <sup>4</sup>
NA	NA	TPWODL	Odisha	Private	81.5   A	87.2   A+ <sup>5</sup>
NA	NA	TPSODL	Odisha	Private	46   B-	79.3   A <sup>5</sup>
NA	NA	TPNODL	Odisha	Private	31.3   C	55.9   B <sup>6</sup>
NA	NA	TPCODL	Odisha	Private	64.8   B	51.8   B <sup>5</sup>
NA	NA	● KPDCCL	J&K	State	-21.5   C-	-19   C- <sup>5</sup>
NA	NA	● JPDCL	J&K	State	-20.5   C-	-20   C- <sup>5</sup>

#### Notes:

- Red card metrics attracted
- Grade over-ride due to Regulatory Assets disincentive for BRPL, BYPL
- Grade over-ride due to ACS-ARR Gap boundary conditions for KESCO
- Grade over-ride due to Loan default in MePDCL
- For new Utility (with 2-year operations), weighted average metrics have been calculated assuming 60% weightage for FY22, and 40% for FY21. This includes computation methodology applied in TPWODL, TPSODL, TPCODL, APCPDCL, KPDCCL, JPDCL
- For new Utility (with 1-year operations), weighted average metrics have been calculated assuming 100% weightage for FY22. This includes computation methodology applied in TPNODL
- Torrent Power Surat and Torrent Power Ahmedabad have not been included in the 11<sup>th</sup> Integrated Ratings

## B. Power Departments

10 <sup>th</sup> rank	11 <sup>th</sup> rank	Utility	State/UT	10 <sup>th</sup> ratings score	11 <sup>th</sup> ratings score
2	1	Chandigarh PD	Chandigarh	81.6   A	54.9   B
4	2	Goa PD	Goa	51.1   B	43.8   B-
3	3	BEST	Maharashtra	72.5   A	33.8   C
9	4	Sikkim PD	Sikkim	-0.3   C-	32.7   C
1	5	Daman & Diu PD	Daman & Diu	82.9   A	7.8   C-
11	6	Nagaland PD	Nagaland	-2.5   C-	6.8   C-
6	7	Mizoram PD	Mizoram	23.3   C	4   C-
7	8	Arunachal PD	Arunachal Pradesh	5.5   C-	-0.5   C-
5	9	Puducherry PD	Puducherry	43.8   B-	-1   C-
10	10	Lakshadweep ED	Lakshadweep	-1.8   C-	-1.5   C-
8	11	Andaman & Nicobar PD	Andaman & Nicobar	2.7   C-	-3.8   C-
	NA	Ladakh PD <sup>1</sup>	Ladakh	NA	33.8   C

1. 11<sup>th</sup> ratings includes Ladakh as PD

2. FY22 financials were not received for Mizoram PD, Puducherry PD, Andaman and Nicobar PD, Daman & Diu PD, Lakshadweep PD – consequently no marks have been awarded for them for financial metrics



# 5.2 Cash-adjusted ACS-ARR movement b/w 10<sup>th</sup> and 11<sup>th</sup> Ratings

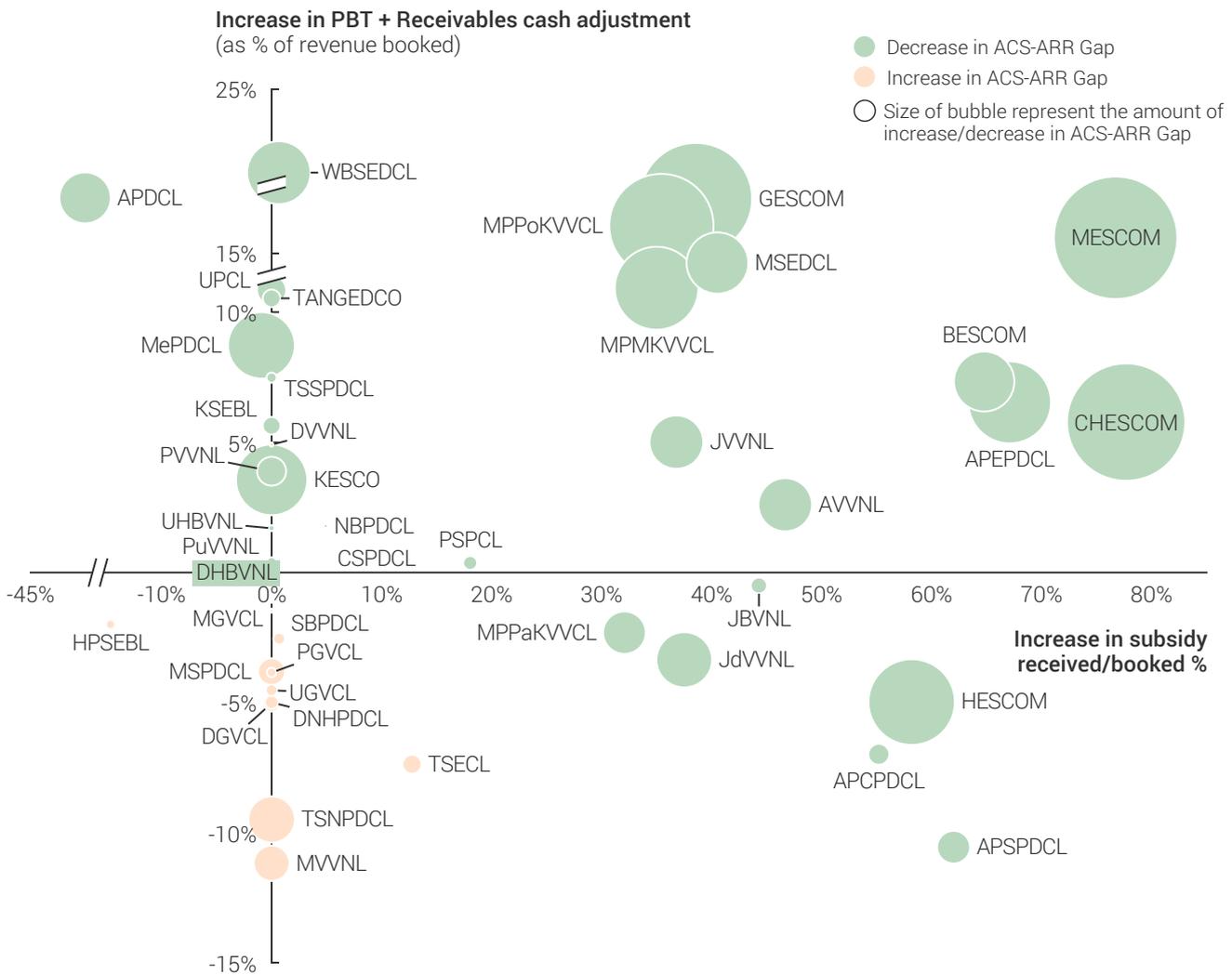
## 5.2.1 State discoms

The ACS-ARR gap for state discoms is driven by a combination of two factors:

- **Cash adjusted PBT (operational performance):** Majorly in control of the discoms and driven by billing and collection efficiencies. Can see some amount of external impact if there is delay in issuance of tariff orders.
- **Subsidy disbursal:** Under direct control of the state governments. Any shortfall in subsidy disbursal with respect to subsidy booked, directly impacts the cash adjustment in ACS-ARR calculation.

Exhibit 3

Contributing factors to shift in state discoms' ACS-ARR Gap from FY21 to FY22



From FY22 to FY21, 30 out of 43 state discoms<sup>14</sup> improved their ACS-ARR gap, helped by a combination of both operational performance (cash-adjusted PBT rose by more than 5 percent of revenue booked for 17 discoms) and subsidy disbursal (improved by more than 30 percent of subsidy booked for 16 discoms). For the utilities, where ACS-ARR fell it was because of a decline in operational performance.

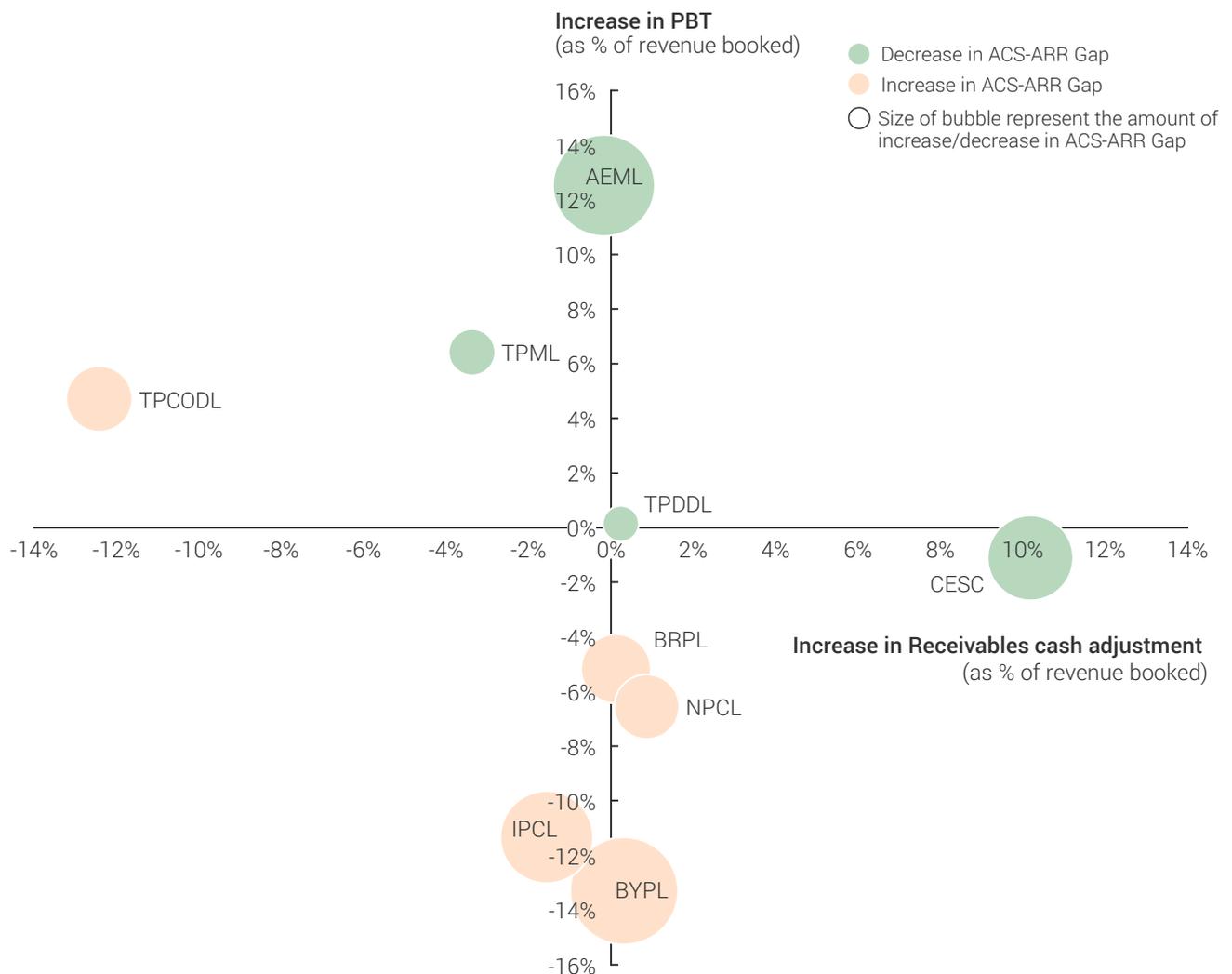
### 5.2.2 Private Discoms

Private discoms' ACS-ARR gap is entirely influenced by their own operational performance (cash-adjusted PBT) since they do not receive subsidies. Here, the ACS-ARR gap is assessed on the basis of two components in operational performance: 1) PBT (accrual) and 2) cash adjustment due to trade receivable (cash collections).

Four out of nine<sup>15</sup> private discoms improved their ACS-ARR gap in FY22 from FY21. PBT (accrual) has been the major driver for ACS-ARR movement in private discoms, with the exception of TPCODL and CESC, which saw significant change in the cash collections.

Exhibit 4

**Contributing factors to shift in private discoms' ACS-ARR Gap from FY21 to FY22**



<sup>14</sup> Excluding JPDCL and KPDCL. They have not been included since their power costs and revenues are accounted for in Government's books and separate details for other expenses are not available

<sup>15</sup> Of the 14 private discoms, Torrent Power Surat and Torrent Power Ahmedabad have been excluded. Further, TPWODL and TPSODL have not been included since they had only ~90 days of operations in FY21. TPNODL has also been excluded as the new entity started operations in FY22 post take-over



# 06

## Best practices adopted by discoms

Along with government launching interventions to revitalize the sector, discoms also share equal responsibility in strengthening their businesses and improving performance. They could proactively identify their shortfalls, especially by using the Urja DRISHTI dashboard and analyzing individual discom reports. The most common shortfalls for discoms include increasing billing efficiency, resolving collection-related problems and working capital management. Further, in some instances, external factors such as state government and state regulators come into play as well.

This section explores some of the best practices already adopted by discoms across the country, to guide other utilities. Each discom is thus advised to identify its most pressing pain points independently and employ whichever best practices apply to them most.

### For improving billing efficiency:

- **Digitize bills:** Many well performing discoms are moving to online/electronic bills, especially since COVID-19 and lockdowns affected customer mobility. They are also partnering with popular mobile application to deliver digital electricity bills.

Going one step further, the utilities have integrated bill generation with digital bill payment through multiple channels (SMS, website, UPI, Paytm, partner banks' apps etc.). Top performing utilities collect nearly 85 percent of their payments through digital channels. AEML, for instance, has nearly done away with physical payment counters and replaced them with online payment and payment mobile vans.

Digitization has helped discoms to significantly reduce turnaround time for bill generation and delivery. More importantly, customers no longer need to physically visit payment counters and stand in long queues, which improved collections.

- **Manage customer relationships better:** Utilities are deploying digital, AI-enabled tools to improve their ties with customers. Functionalities such as IVR, Chatbots for FAQs, automated emails, ready hotline, dedicated WhatsApp number, etc. help to provide better customer service and save manpower and time. TPML has also launched Microsoft Kaizala which is a one stop digital solution for various services offered by the discom to its consumers, including bill payment, customer complaints, a way to upload meter readings, chat-based assistance etc.
- **Upgrade grid infrastructure:** Discoms have implemented high voltage distribution systems (or HVDS) and are making great efforts in undergrounding cables, bifurcating feeders based on loading, rerouting feeders and replacing open conductors with AB cables (aerial bunched cable) to reduce technical losses. Some have installed Automatic Meter Readers (AMR) for HT (high tension) customers, reducing the timeline for bill generation. Others have implemented CT meters for industrial consumers and adopted DT metering for greater accuracy. TPML, for instance, has demonstrated technological innovation in substations, including using Smart LT Network equipment with anti-theft mechanisms and installing LoRa NONC devices at remote, unmanned substations to communicate critical operational parameters.
- **Acquire advanced meter reading and bill generation capabilities:** Utilities that have acquired these technologies have reduced manual intervention (and errors) in generating customer bills, improving efficiency. APDCL, for example, deployed an AI-based app that uses images taken by meter readers to autofill units. TPDDL partnered with an AI firm to deploy OCR (optical character recognition) technology and gather meter readings from mobile device cameras. AEML and BRPL have been using specialized devices that can connect to meters via optical cables and download billing data. PGVCL deployed an in-house software that compiles GPRS data from meters on faulty lock, <20 units consumers, etc.
- **Implement robust checks to reduce fraud:** Leading state utilities in Gujarat and Haryana and several private utilities have employed dedicated teams for analyzing data to identify fraud. At some of these utilities, accountability for loss monitoring resides with the dedicated substation and feeder-level managers. They regularly monitor MIS reports and have established the following checks to ensure that there are no revenue leakages:
  - Investigating frequent zero and average billed connections through onsite visits, phone calls and notices
  - Removing service lines from permanently disconnected consumers to prevent misuse
  - Bringing all newly energized connections under the billing cycles
  - Identifying and investigating high loss and low consumption connections
- **Maintain tight vigilance driven by technology:** Many utilities hire dedicated check squads and are using technology to conduct frequent mass vigilance drives with wide publicity to contain theft. PGVCL, for example, is using drones for enforcing anti-theft surveillance.



### For boosting collection efficiency:

- **Lead disconnection drives and settlement schemes for defaulting customers:** Top performing utilities tightly follow disconnection rules and regulations for defaulting customers. They often conduct mass disconnection drives, wherein they also provide spot payment facility to such customers for avoiding disconnection. Some state governments have also lent support in this regard. For example, government of Uttarakhand provided one time settlement scheme to customers who had long and overdue payments.
- **Run special programs to improve awareness and engagement in rural areas:** Partnering with post offices and gram panchayats and deploying dedicated agents to improve rural collections have helped discoms with large rural territories to improve collection efficiency. Haryana discoms have run successful programs to educate consumers about electricity usage and drive fundamental shifts in consumer behavior. These programs included rural roadshows as well as tie-ups with educational institutions to create awareness at the grassroots level. TPML leads SAKHI (Social Advancement for Knowledge and Household Income), under which, women have been engaged for electricity billing and recovery and have been provided multiple well-being measures.

State governments have also helped by appointing village entrepreneurs, which manage collections from rural customers, who otherwise may have to travel long distances to go to collection centers.

### For enhancing organizational constructs and increased outreach:

- **Build capabilities:** Many discoms have been actively investing in building employee capabilities, often through partnerships with academic institutes such as Centralized Gujarat Energy Knowledge Centre, National Power Training Institute and Tata Power Skill Development Institute. The utilities also have provisions for training their employees at national institutes like IIM, IIT & Electrical Research and Development Association.

Discoms could focus on building technological capabilities as well. Integration of ERP system with on-ground operations can enable automating energy accounting process. Further, with the onset of Robotic Processes Automation, daily operations can be digitized, achieving greater accuracy and reduced turnaround time.

- **Optimize KPIs for right incentivization:** The discom operational performance can be further improved by linking it to the right set of KPIs. For instance, some utilities have revised their payment terms with third party collection agencies by linking it to collected amount, number of defaulting customers, etc. PGVCL, for instance, has implemented division-wise profitability, facilitated through an in-house software which automatically monitors and reports the status of collections, defaulting customers, customer complaints for each division. Vigilance staff, sometimes referred to as Revenue Protection Unit (RPU), can be incentivized by setting evaluation targets related to inspection of tariff misuse, unauthorized load, CT ratio errors, etc.
- **Implement conducive terms and processes with vendors and suppliers:** Many high-performing discoms maintain low liabilities by consistently cashing in early on payment discounts offered by vendors. They also have tightly integrated processes that involve third parties to ensure that funds are received on time (e.g., payment clearance processes with partner banks).
- **Offer value-added services:** These can help with customer outreach. For example, TMPL, has launched 'Know your Energy Consumption' service, where power demand, consumption, power factor patterns are emailed daily to subscribed customers, enabling them to optimize their usage. Energy Audit services can be provided to high-value electricity consumers to help them identify power wastage, suggest possible measure to save power.
- **Increase media usage:** Mass media channels (print media, OOH advertising and TV) can be used to promote collection channels and increase outreach. Further, for reaching remote/rural customers, channels such as phone calls, SMS, email, radio, TV and print media can be used in a structured manner to send reminders for due dates and payment.

**Best practices to consider with respect to governance, accounting, etc. are outlined below:**

Below we highlight best practices in terms of governance, accounting etc.

- Create a business transformation action plan (including targets and KPIs, activities, monitoring and reviews) and establish a multi-disciplinary project management office for executing it
- Establish a cadence for top-management reviews of targets and milestones. Communicate with central nodal agencies (e.g., PFC and REC for RDSS) frequently
- Centralize key functions such as procurement and back-office operations. This has helped discoms in Haryana realize volume discounts, improve payment terms and optimize talent
- Follow accounting standards (IND-AS) as prescribed under the Companies Accounting Standard Rules
- Maintain records of ageing trade receivables in quarterly or annual accounts
- Maintain records of total electricity duty and delayed payment surcharges, booked and collected, in quarterly or annual accounts

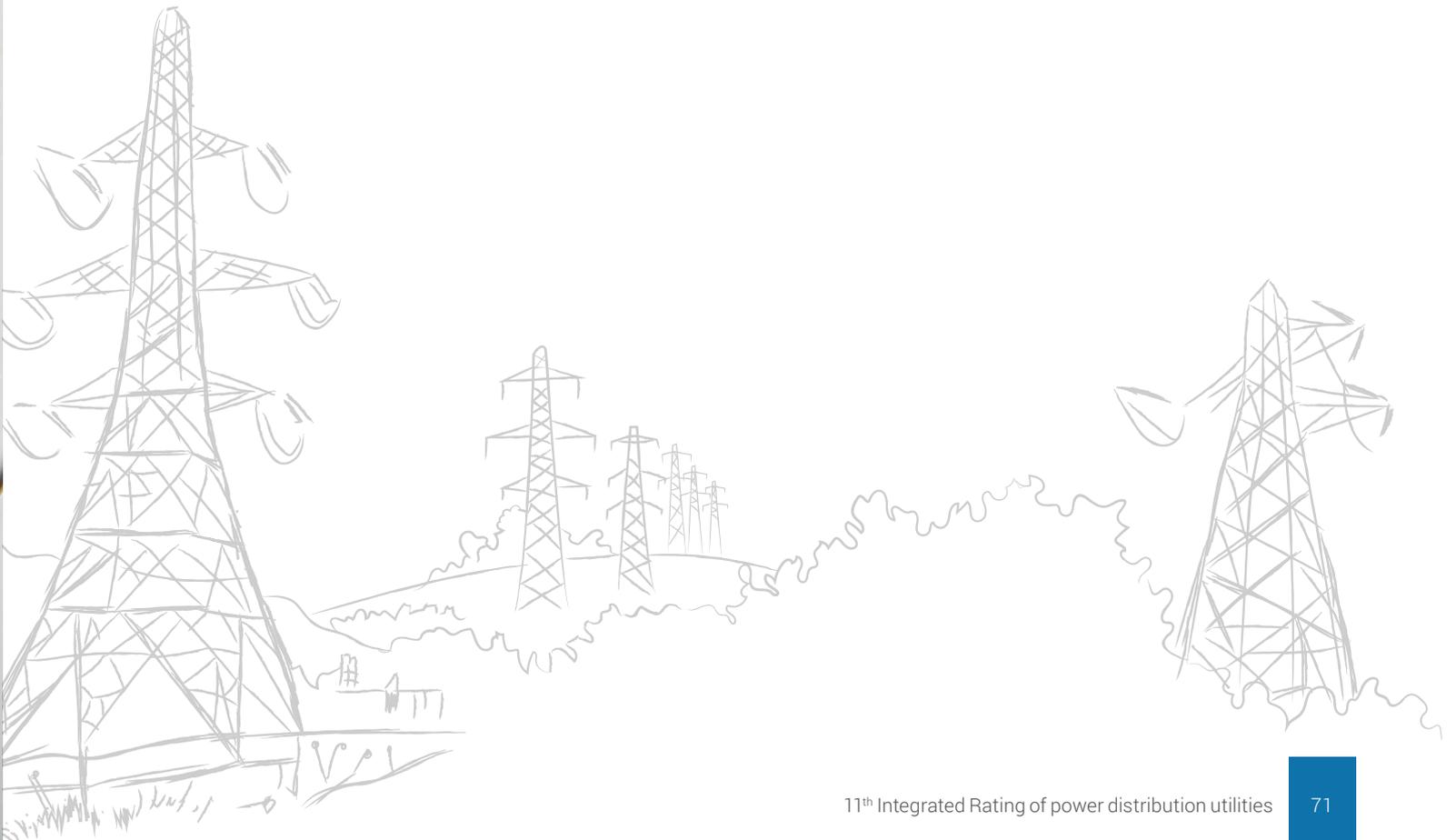




国标200A直流充电器  
型号: NDC-9T(200A-750V)-E  
额定电流电压: 200A 750V  
防护等级: IP54

# 07

## Appendix



## APPENDIX

# 1. Important updates in the 11<sup>th</sup> Rating Exercise

The 11<sup>th</sup> Integrated Rating Exercise saw some changes in terms of classification, participation and calculation methodology for new utilities:

- Analysis was done basis data available from 57 discoms and 12 power departments.
- Ladakh was considered a power department in the 11<sup>th</sup> rating exercise versus a discom in the 10<sup>th</sup> rating exercise.
- Torrent Ahmedabad and Torrent Surat are the two utilities who have not participated in the 11<sup>th</sup> Integrated Rating Exercise and hence their data is not included in the analysis.
- For two discoms – Jammu Power Distribution Corporation Limited (JPDCL) and Kashmir Power Distribution Corporation Limited (KPDCL) – revenue collection, power purchase was managed/financed by the UT government. Given, that individual accounts did not capture this critical financial information, they were not reflective of the true financial health of the discom. Therefore, zero marks were awarded for metrics linked to financial accounts.
- FY22 financials were not received for Mizoram PD, Puducherry PD, Andaman and Nicobar PD, Daman & Diu PD, Lakshadweep PD – consequently no marks have been awarded for them for financial metrics (ACS-ARR Gap, billing efficiency, collection efficiency, distribution loss (SERC approved))
- New utilities with two completed years of operation – included only APCPDCL
  - Included in the main ranking list of 11th rating exercise
  - Weighted average calculation: 40 percent weightage (FY 21), 60 percent weightage (FY 22)
  - Scores: Combine score weightage for two-year CAGR metrics (ACS-ARR Gap, Collection Efficiency, Efficiency) within the respective 'absolute score' metric
- New utilities with one completed years of operation – included TPCODL, TPNOCL, TPWODL, TPSODL, JPDCL, KPDCL
  - Weighted average calculation: 100 percent weightage (FY 22)
  - Scores: Combine score weightage for two year, one year CAGR metrics (ACS-ARR Gap, Collection Efficiency, Efficiency) within the respective 'absolute score' metric
- In the 11th rating exercise red card metrics were given to following utilities:
  - **Auditor's Adverse Opinion:** TANGEDCO, HPSEBL, JBVNL
  - **Un-availability of audited accounts:** MEPDCL, JPDCL, KPDCL
  - **Default to Banks/FIs:** MEPDCL
- Grade for following utilities were downgraded due to over-riding conditions:
  - **Loan Default:** MePDCL
  - **Change in regulatory assets:** BRPL, BYPL
  - **Overriding ACS-ARR condition:** KESCO

## APPENDIX

# 2. Key findings by discom

### A. State Discoms

S.N	State	Utility name	Full name	Page No.
1	Andhra Pradesh	APCPDCL	Andhra Pradesh Central Power Distribution Company Limited	77
2	Andhra Pradesh	APEPDCL	Eastern Power Distribution Company of Andhra Pradesh Limited	81
3	Andhra Pradesh	APSPDCL	Southern Power Distribution Company of Andhra Pradesh Limited	85
4	Assam	APDCL	Assam Power Distribution Company Limited	89
5	Bihar	NBPDCL	North Bihar Power Distribution Company Limited	93
6	Bihar	SBPDCL	South Bihar Power Distribution Company Limited	97
7	Chhattisgarh	CSPDCL	Chhattisgarh State Power Distribution Company Limited	101
8	Dadra & Nagar Haveli	DNHPDCL	DNH Power Distribution Corporation Limited	105
9	Gujarat	DGVCL	Dakshin Gujarat Vij Company Limited	109
10	Gujarat	MGVCL	Madhya Gujarat Vij Company Limited	113
11	Gujarat	PGVCL	Paschim Gujarat Vij Company Limited	117
12	Gujarat	UGVCL	Uttar Gujarat Vij Company Limited	121
13	Haryana	DHBVNL	Dakshin Haryana Bijli Vitran Nigam Limited	125
14	Haryana	UHBVNL	Uttar Haryana Bijli Vitran Nigam Limited	129
15	Himachal Pradesh	HPSEBL	Himachal Pradesh State Electricity Board Limited	133
16	Jammu	JPDCL	Jammu Power Distribution Corporation Limited	137
17	Jharkhand	JBVNL	Jharkhand Bijli Vitran Nigam Limited	139
18	Karnataka	BESCOM	Bangalore Electricity Supply Company Limited	143
19	Karnataka	CHESCOM	Chamundeshwari Electricity Supply Corporation Limited	147
20	Karnataka	GESCOM	Gulbarga Electricity Supply Company Limited	151
21	Karnataka	HESCOM	Hubli Electricity Supply Company Limited	155
22	Karnataka	MESCOM	Mangalore Electricity Supply Company Limited	159
23	Kashmir	KPDCL	Kashmir Power Distribution Corporation Limited	163

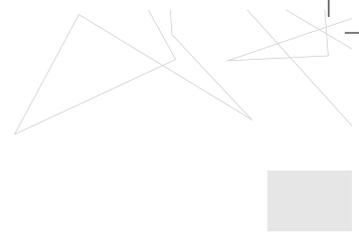
S.N	State	Utility name	Full name	Page No.
24	Kerala	KSEBL	Kerala State Electricity Board Limited	165
25	Madhya Pradesh	MPMaKVVCL	MP Madhya Kshetra Vidyut Vitaran Company Limited	169
26	Madhya Pradesh	MPPaKVVCL	MP Paschim Kshetra Vidyut Vitaran Company Limited	173
27	Madhya Pradesh	MPPoKVVCL	MP Poorv Kshetra Vidyut Vitaran Company Limited	177
28	Maharashtra	MSEDCL	Maharashtra State Electricity Distribution Company Limited	181
29	Manipur	MSPDCL	Manipur State Power Distribution Company Limited	185
30	Meghalaya	MePDCL	Meghalaya Power Distribution Corporation Limited	189
31	Punjab	PSPCL	Punjab State Power Corporation Limited	193
32	Rajasthan	AVVNL	Ajmer Vidyut Vitran Nigam Limited	197
33	Rajasthan	JdVVNL	Jodhpur Vidyut Vitran Nigam Limited	201
34	Rajasthan	JVVNL	Jaipur Vidyut Vitran Nigam Limited	205
35	Tamil Nadu	TANGEDCO	Tamil Nadu Generation & Distribution Corporation Limited	209
36	Telangana	TSNPDCL	Northern Power Distribution Company of Telangana Limited	213
37	Telangana	TSSPDCL	Southern Power Distribution Company of Telangana Limited	217
38	Tripura	TSECL	Tripura State Electricity Corporation Limited	221
39	Uttar Pradesh	DVVNL	Dakshinanchal Vidyut Vitran Nigam Limited	225
40	Uttar Pradesh	KESCO	Kanpur Electricity Supply Company Limited	229
41	Uttar Pradesh	MVVNL	Madhyanchal Vidyut Vitran Nigam Limited	233
42	Uttar Pradesh	PaVVNL	Paschimanchal Vidyut Vitran Nigam Limited	237
43	Uttar Pradesh	PuVVNL	Purvanchal Vidyut Vitran Nigam Limited	241
44	Uttarakhand	UPCL	Uttarakhand Power Corporation Limited	245
45	West Bengal	WBSEDCL	West Bengal State Electricity Distribution Company Limited	249

## B. Private Discoms

S.N	State	Utility name	Full name	Page No.
1	Delhi	BRPL	BSES Rajdhani Power Ltd	253
2	Delhi	BYPL	BSES Yamuna Power Ltd	257
3	Delhi	TPDDL	Tata Power Delhi Distribution Ltd	261
4	Maharashtra	AEML	Adani Electricity Mumbai Limited	265
5	Maharashtra	TPML	Tata Power Limited – Mumbai	269
6	Odisha	TPCODL	Tata Power Central Odisha Distribution Ltd	273
7	Odisha	TPNODL	Tata Power Northern Odisha Distribution Ltd	277
8	Odisha	TPSODL	Tata Power Southern Odisha Distribution Ltd	281
9	Odisha	TPWODL	Tata Power Western Odisha Distribution Ltd	285
10	Uttar Pradesh	NPCL	Noida Power Company Ltd.	289
11	West Bengal	CESC	CESC Limited	293
12	West Bengal	IPCL	India Power Corporation Limited	297

## C. Power Departments

S.N	State	Utility Name	Full Name	Page No.
1	Andaman & Nicobar Islands	Andaman & Nicobar PD	Electricity Department, Andaman & Nicobar Administration	301
2	Arunachal Pradesh	Arunachal PD	Department of Power, Government of Arunachal Pradesh	303
3	Chandigarh	Chandigarh PD	Electricity Wing of Engineering Department, Chandigarh Administration	307
4	Daman & Diu	Daman & Diu PD	Electricity Department, UT Administration of Dadra & Nagar Haveli and Daman & Diu	311
5	Goa	Goa PD	Electricity Department, Government of Goa	313
6	Lakshadweep	Lakshadweep ED	Department of Electricity, UT of Lakshadweep	317
7	Ladakh	Ladakh PD	Ladakh Power Development Department	319
8	Maharashtra	BEST	The Brihanmumbai Electric Supply & Transport Undertaking	323
9	Mizoram	Mizoram PD	Power & Electricity Department, Government of Mizoram	327
10	Nagaland	Nagaland PD	Department of Power, Nagaland	329
11	Puducherry	Puducherry PD	Electricity Department, Government of Puducherry	333
12	Sikkim	Sikkim PD	Power Department, Government of Sikkim	335



# A. State discoms

## Andhra Pradesh Central Power Distribution Company Limited (APCPDCL)



Rank  
35 out of 51

Grade

### Overview of APCPDCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	24-Dec-2019
Nature of operations	Distribution
Area of operations	State of Andhra Pradesh in districts of Krishna, Guntur and Prakasam
Number of customers	4,923,317
% Agricultural customers	8.74%
% C&I customers	9.40%
Gross input energy	15,592 MU (11% change) <sup>3</sup>
Total energy sold	14,029 MU (10% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 9,812 Cr (5% change) <sup>3</sup>
Profit after tax	INR -801 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

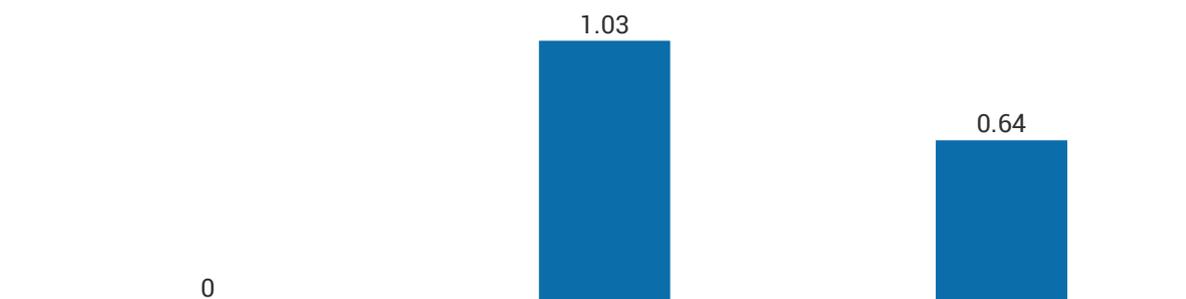
3. Compared to FY 2021.

### Key Insights

- APCPDCL score improved from 21.6 (10<sup>th</sup> Ratings) to 25.9 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR Gap, Leverage metrics in FY22
- Major decline in Loss Takeover by State Government metric in FY 22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts



## Analysis of ACS-ARR Gap (In INR / kWh)



2.53 | 0.35 | -2.24

FY 2020

2.33 | 0.57 | -1.64

FY 2021

2.45 | 0.05 | -1.52

FY 2022

ACS - ARR Gap across all DISCOMs – Highest | Median | Lowest

ACS-ARR Gap – Weighted Average for 11th Ratings: **0.79 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **NA**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Percentile			
			Bottom	33rd	67th	Top
Cash adjusted revenue	9.61	6.17	77%	96%	100%	130%
Power purchase cost	7.83	5.02	95%	84%	74%	50%
O&M expenses	1.51	0.97	38%	14%	9%	1%
Interest	0.87	0.56	19%	7%	3%	0%
Other expenses	0.40	0.26				
Gap / Surplus	-1.00	0.64	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from 1.03 in FY21 to 0.64 in FY22. FY21 accounts have been recasted.
  - PBT (excl. Other Subsidy) declined from 0.04% of Revenue booked in FY21 to (-8%) in FY22
  - Tariff Subsidy received improved significantly from 41% of subsidy booked in FY21 to 96% in FY22
- AT&C losses improved significantly from 22.7% in FY21 to 10.0% in FY22 – driven majorly by improvement in Collection Efficiency (from 84.2% in FY21 to 97.8% in FY22)

---

### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap can be reduced – currently at INR 0.64/ kWh
  - Negative PBT ((-8%) of Revenue booked)
  - Total Subsidy disbursement – 96% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables ((-1%) of Revenue booked)
- Days Payable may be reduced – currently at 193 days as compared to LPS norm of 45 days
- Debt Service Coverage Ratio (cash adjusted) can be improved – currently it is 0.15 (for max. score, expected greater than or equal to 1.10)
- Leverage (cash adjusted) can be reduced – currently it is 33.44 (for max. score, expected greater than 0 upto 5)
- Debt levels can be reduced – currently Debt as % of Revenue booked is significantly high at 94%, as compared to National median of ~50%

#### External Environment

- Automatic pass through of fuel cost should be implemented
- Govt. Support required for taking over of Discom losses

#### Specific Disincentives

- Ind-AS can be adopted, Employee liabilities can be addressed to remove Audit Qualification

# Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL)



Rank  
22 out of 51

Grade

## Overview of APEPDCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	30-Mar-2000
Nature of operations	Distribution
Area of operations	5 districts in eastern Andhra Pradesh, namely, Srikakulam, Vizianagaram, Visakhapatnam, East Godavari and West Godavari.
Number of customers	6,772,785
% Agricultural customers	4.49%
% C&I customers	9.65%
Gross input energy	25,342 MU (11% change) <sup>3</sup>
Total energy sold	23,159 MU (13% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 16,062 Cr (4% change) <sup>3</sup>
Profit after tax	INR 397 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

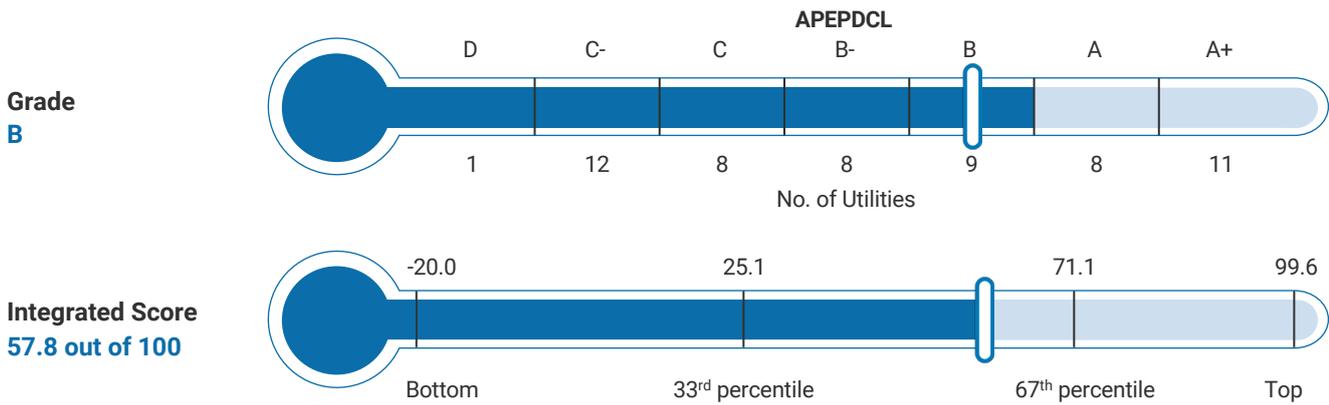
3. Compared to FY 2021.

## Key Insights

- APEPDCL score improved significantly from 11.3 (10<sup>th</sup> Ratings) to 57.8 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR Gap, Adjusted Quick Ratio, Leverage, Loss Takeover by State Government, Default to banks metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

APEPDCL achieved Rank 22 (out of 51 utilities), with Grade B and Integrated Score of 57.8 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

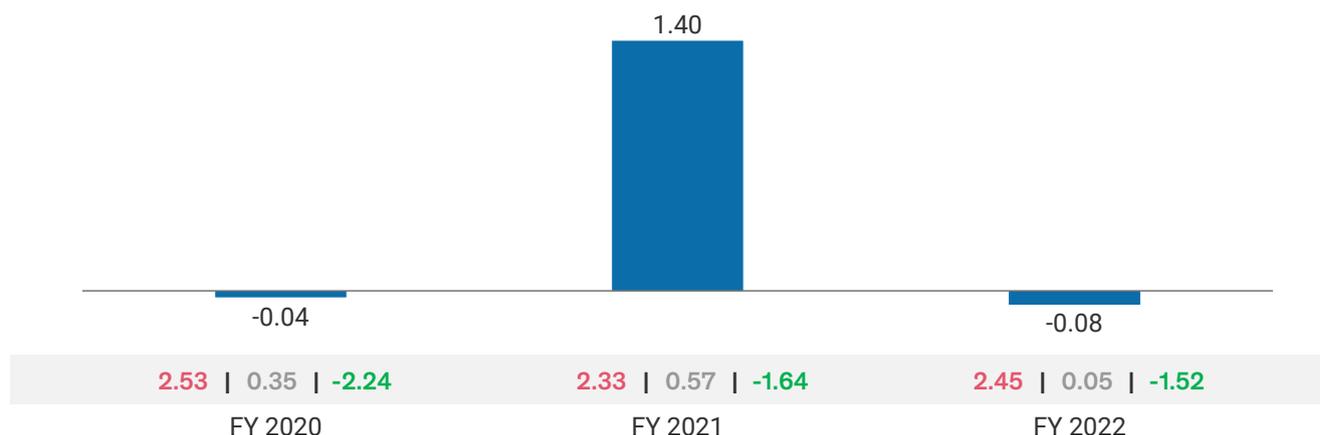


## Summary of Performance across Metrics

Integrated Score: 57.8 out of 100									
Base Rating Score: 60.8									
Financial Sustainability			Performance Excellence			External Environment			
ACS – ARR gap (cash adjusted)	24.8	35	Distribution Loss (SERC approved)	0.8	2	Subsidy Realized (last 3 FYs)	0.0	4	
Days Receivable	3.0	3	Billing Efficiency	5.0	5	Loss Takeover by State Government	3.0	3	
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	3.1	5	Government Dues (Last 3 FYs)	3.0	3	
Adjusted Quick Ratio	10.0	10	Corporate Governance	0.0	1	Tariff Cycle Timelines	1.0	1	
Debt Service Coverage Ratio (cash adjusted)	0.0	10				Auto Pass Through of Fuel Costs	0.0	1	
Leverage Debt/EBITDA (cash adjusted)	7.0	7							
Specific Disincentives: -3.0									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	-2.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	-1.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	0.0	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **0.29 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-44% (improving)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	15.87	6.26	77%	96%	100%	130%
Power purchase cost	12.89	5.09	95%	84%	74%	50%
O&M expenses	1.43	0.56	38%	14%	9%	1%
Interest	0.94	0.37	19%	7%	3%	0%
Other expenses	0.40	0.16				
Gap / Surplus	0.20	-0.08	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from 1.40 in FY21 to (-0.08) in FY22
    - PBT (excl. Other Subsidy) improved from (-6%) of Revenue booked in FY21 to 0.4% in FY22
    - Tariff Subsidy received improved significantly from 24% of subsidy booked in FY21 to 91% in FY22. Further, the DISCOM received Other Subsidy of 2% of Revenue booked in FY22.
  - AT&C losses improved from 20.9% in FY21 to 7.8% in FY22 – driven majorly by improvement in Collection Efficiency (from 84.8% in FY21 to 98.7% in FY22)
- 

### Key Strengths

#### Financial Sustainability

- ACS-ARR Gap (cash adjusted) currently at (-0.08)
  - Positive PBT (2% of Revenue booked)
  - Total Subsidy disbursement – 92% of Subsidy booked
  - Positive cash adjustment due to Trade Receivables
- Days Receivable currently at 47 days as against National median of ~71 days
- Healthy Adjusted Quick Ratio, currently at 1.29

#### Performance Excellence

- Amongst the top 10%ile performers in Billing Efficiency – currently at 93.4%
- 

### Key Improvement Areas

#### Financial Sustainability

- Days Payable may be reduced – currently at 122 days as compared to LPS norm of 45 days
- Debt Service Coverage Ratio (cash adjusted) can be improved – currently it is 0.58 (for max. score, expected greater than or equal to 1.10)

#### External Environment

- Automatic pass through of fuel cost should be implemented

#### Specific Disincentives

- Ind-AS can be complied, Employee Liabilities can be addressed to remove Audit Qualification
- Director Finance should be exclusive

# Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL)



## Overview of APSPDCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	30-Mar-2000
Nature of operations	Distribution
Area of operations	Tirupati, Kadapa, Nellore, Anapatur, Kurnool districts of Andhra Pradesh
Number of customers	6,795,747
% Agricultural customers	15.83%
% C&I customers	8.46%
Gross input energy	35,189 MU (11% change) <sup>3</sup>
Total energy sold	32,557 MU (11% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 19,734 Cr (-1% change) <sup>3</sup>
Profit after tax	INR -2,054 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

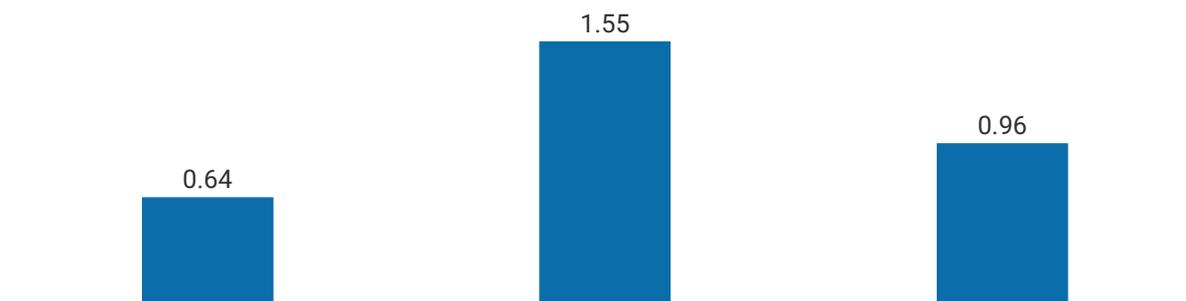
3. Compared to FY 2021.

## Key Insights

- APSPDCL score improved from 7.0 (10<sup>th</sup> Ratings) to 16.2 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR Gap, Default to banks metrics in FY22
- Major decline in Loss Takeover by State Government in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts



## Analysis of ACS-ARR Gap (In INR / kWh)



FY 2020	FY 2021	FY 2022
2.53   0.35   -2.24	2.33   0.57   -1.64	2.45   0.05   -1.52

ACS - ARR Gap across all DISCOMs – **Highest** | Median | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **1.06 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **22% (deteriorating)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	18.42	5.23	77%	96%	100%	130%
Power purchase cost	17.15	4.87	95%	84%	74%	50%
O&M expenses	2.97	0.84	38%	14%	9%	1%
Interest	0.92	0.26	19%	7%	3%	0%
Other expenses	0.75	0.21				
Gap / Surplus	-3.37	0.96	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from 1.55 in FY21 to 0.96 in FY22. Major recasting in FY21 accounts.
  - PBT (excl. Other Subsidy) declined from 0% of Revenue booked in FY21 to (-10%) in FY22
  - Tariff Subsidy received improved significantly from 43% of subsidy booked in FY21 to 105% in FY22
- AT&C losses improved significantly from 38.7% in FY21 to 13.6% in FY22 – driven majorly by improvement in Collection Efficiency (from 66.8% in FY21 to 94.2% in FY22)

---

### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap may be improved – currently at INR 0.96/ kWh
  - Negative PBT ((-10%) of Revenue booked)
  - Total Subsidy disbursement – 105% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables ((-8%) of Revenue booked)
- Days Payable may be reduced – currently at 187 days as compared to LPS norm of 45 days
- Days Receivables may be reduced – currently at 154 days (for max. score, expected less than or equal to 60 days)
- Debt Service Coverage Ratio (cash adjusted) can be improved – currently it is (-0.47) (for max. score, expected greater than or equal to 1.10)
- Leverage (cash adjusted) may be improved – currently at (-10.71) (for max. score, expected greater than 0 upto 5)
- Debt levels can be reduced – currently Debt as % of Revenue booked is significantly high at ~92%, as compared to National median of ~50%

#### External Environment

- Government dues can be lowered – currently ~42% of total amount billed to Government in the past 3 years is due
- Automatic pass-through of fuel costs can be implemented
- Govt. support required for taking over of Discom losses

#### Specific Disincentives

- Ind-AS can be adopted and Employee Liabilities can be addressed to remove Audit Qualification

# Assam Power Distribution Company Limited (APDCL)



## Overview of APDCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	23-Oct-2003
Nature of operations	Distribution
Area of operations	State of Assam
Number of customers	6,605,329
% Agricultural customers	0.63%
% C&I customers	5.65%
Gross input energy	11,953 MU (9% change) <sup>3</sup>
Total energy sold	9,535 MU (9% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 7,943 Cr (11% change) <sup>3</sup>
Profit after tax	INR 336 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

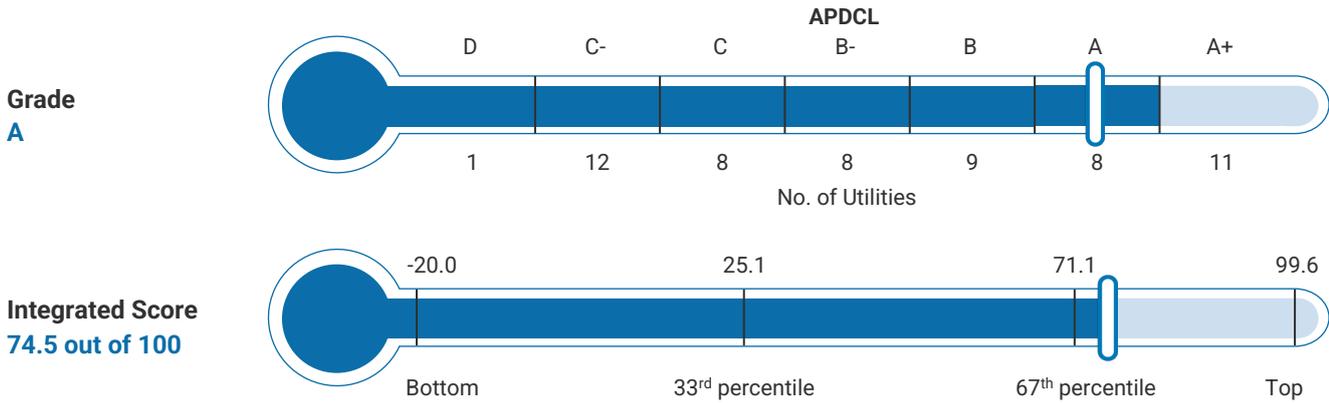
3. Compared to FY 2021.

## Key Insights

- APDCL score improved significantly from 44.9 (10<sup>th</sup> Ratings) to 74.5 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR Gap, Days Payable, Adjusted Quick Ratio, Leverage metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

APDCL achieved Rank 14 (out of 51 utilities), with Grade A and Integrated Score of 74.5 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

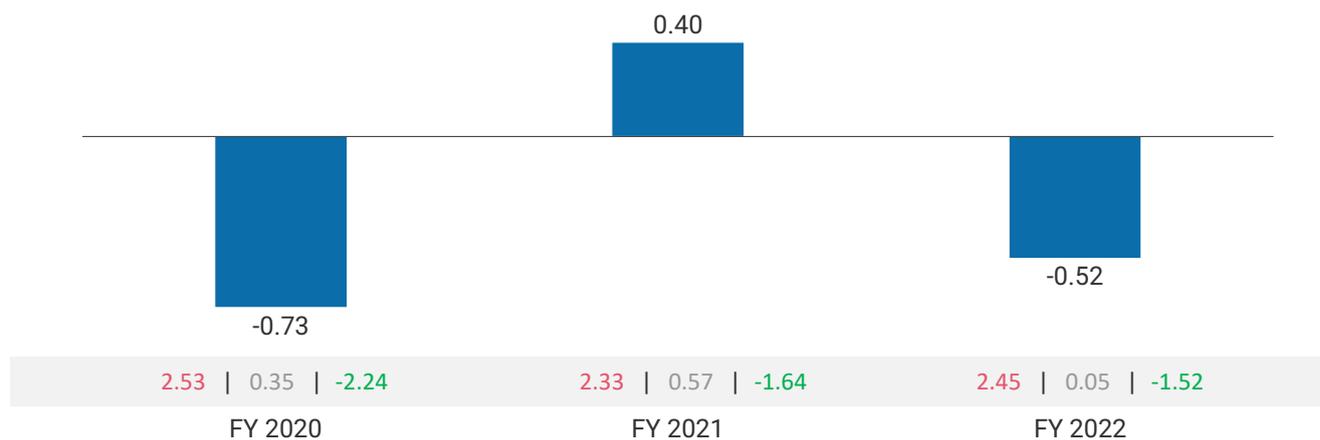


## Summary of Performance across Metrics

Integrated Score: 74.5 out of 100									
Base Rating Score: 76.5									
Financial Sustainability			Performance Excellence			External Environment			
ACS – ARR gap (cash adjusted)	35.0	35	Distribution Loss (SERC approved)	0.7	2	Subsidy Realized (last 3 FYs)	4.0	4	
Days Receivable	1.4	3	Billing Efficiency	0.1	5	Loss Takeover by State Government	3.0	3	
Days Payable to GenCos & TransCos	10.0	10	Collection Efficiency	4.8	5	Government Dues (Last 3 FYs)	3.0	3	
Adjusted Quick Ratio	3.7	10	Corporate Governance	1.0	1	Tariff Cycle Timelines	1.0	1	
Debt Service Coverage Ratio (cash adjusted)	1.8	10				Auto Pass Through of Fuel Costs	0.0	1	
Leverage Debt/EBITDA (cash adjusted)	7.0	7							
Specific Disincentives: -2.0									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	-1.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	-1.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	0.0	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **-0.32 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **16% (deteriorating)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	8.23	6.89	77%	96%	104%	130%
Power purchase cost	5.92	4.95	95%	84%	74%	50%
O&M expenses	1.37	1.15	38%	14%	9%	1%
Interest	0.16	0.13	19%	7%	3%	0%
Other expenses	0.16	0.13				
Gap / Surplus	0.62	-0.52	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved significantly from 0.40 in FY21 to (-0.52) in FY22
    - PBT (excl. Other Subsidy) improved from (-11%) of Revenue booked in FY21 to (-2%) in FY22
    - Tariff Subsidy received declined from 144% of subsidy booked in FY21 to 104% in FY22. Further, the DISCOM received Other Subsidy of ~6% of Revenue booked in FY22.
    - Cash adjustment due to Trade Receivables has improved from (-5%) of Revenue booked in FY21 to 3% in FY22
  - AT&C losses improved from 18.7% in FY21 to 17% in FY22 – driven by improvement in Billing efficiency (from 81.5% in FY21 to 83% in FY22)
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 20%ile performers in ACS-ARR Gap (cash adjusted)
  - Positive PBT (4% of Revenue booked)
  - High Total Subsidy disbursement – 102% of Subsidy booked
  - Positive cash adjustment due to Trade Receivables (3% of Revenue booked)
- Amongst the top 20%ile performers in Days Payable to Gencos and Transcos– currently at 37 days as compared to LPS norm of ~45 days
- Healthy Cash adjusted Leverage, currently at 0.97
- Healthy Debt levels – currently Debt as % of Revenue booked is 11%, as compared to National median of ~50%

#### Performance Excellence

- Collection Efficiency currently at 100%
- 

### Key Improvement Areas

#### External Environment

- Automatic pass-through of fuel costs can be implemented

#### Specific Disincentives

- Ind-AS can be complied with to remove audit qualification
- Managing Director can be exclusive

# North Bihar Power Distribution Company Ltd (NBPDCCL)



## Overview of NBPDCCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	6-Jul-2012
Nature of operations	Distribution
Area of operations	21 districts of North Bihar namely West Champaran, East Champaran, Sitamadhi, Sheohar, Muzaffarpur, Vaishali, Saran, Siwan, Gopalgunj, Mahubani, Darbhanaga, Samastipur, Begusarai, Khagaria, Saharsa, Supaul, Medhepura, Araria, Katihar, Purnea and Kishanganj
Number of customers	11,382,947
% Agricultural customers	1.16%
% C&I customers	6.87%
Gross input energy	18,706 MU (22% change) <sup>3</sup>
Total energy sold	14,614 MU (29% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 11,193 Cr (33% change) <sup>3</sup>
Profit after tax	INR -930 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

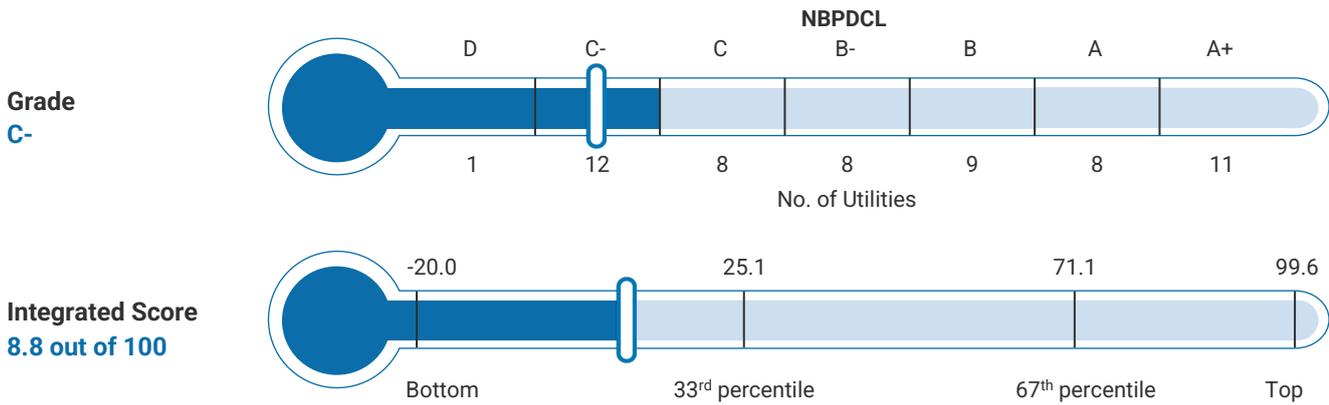
3. Compared to FY 2021.

## Key Insights

- NBPDCCL score declined from 9.2 (10<sup>th</sup> Ratings) to 8.8 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR gap metric in FY22
- Major deterioration in Uncovered Revenue Gap metric in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

NBPDCL achieved Rank 44 (out of 51 utilities), with Grade C- and Integrated Score of 8.8 out of 100. Further, it exhibited a Declining Trajectory w.r.t. Integrated Score

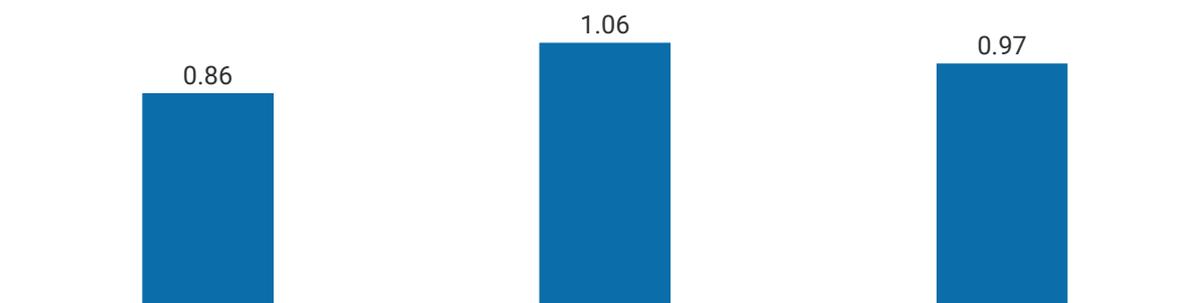


## Summary of Performance across Metrics

Integrated Score: 8.8 out of 100					
Base Rating Score: 13.8					
Financial Sustainability		Performance Excellence		External Environment	
4.4	75	0.0	13	9.4	12
ACS – ARR gap (cash adjusted)	3.5	35	Distribution Loss (SERC approved)	0.0	2
Days Receivable	0.0	3	Billing Efficiency	0.0	5
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	0.0	5
Adjusted Quick Ratio	0.9	10	Corporate Governance	0.0	1
Debt Service Coverage Ratio (cash adjusted)	0.0	10	Subsidy Realized (last 3 FYs)	3.3	4
Leverage Debt/EBITDA (cash adjusted)	0.0	7	Loss Takeover by State Government	2.1	3
			Government Dues (Last 3 FYs)	3.0	3
			Tariff Cycle Timelines	1.0	1
			Auto Pass Through of Fuel Costs	0.0	1
Specific Disincentives: -5.0					
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	0.0	-4
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	-1.0	-3
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	0.0	-4.5
			Tariff Independent of Subsidy	0.0	-1
			Uncovered Revenue Gap (Current Year)	-4.0	-4
			Regulatory Assets	0.0	-5

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **0.98 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **7% (deteriorating)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	10.30	5.51	77%	92%	100%	130%
Power purchase cost	9.80	5.24	95%	88%	74%	50%
O&M expenses	0.83	0.44	38%	14%	7%	1%
Interest	0.62	0.33	19%	6%	3%	0%
Other expenses	0.88	0.47				
Gap / Surplus	-1.82	0.97	2.45	0.97	0.36	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from 1.06 in FY21 to 0.97 in FY22
  - PBT (excl. Other Subsidy) improved from (-20%) of Revenue booked in FY21 to (-13%) in FY22
  - Tariff Subsidy received improved from 85% of subsidy booked in FY21 to 90% in FY22. Further, the DISCOM received Other Subsidy of ~4% of Revenue booked in FY22.
  - Cash adjustment due to Trade Receivables decline from 0% of Revenue booked in FY21 to (-5%) in FY22
- AT&C losses deteriorated from 27.8% in FY21 to 28.9% in FY22 – driven majorly by decline in Collection Efficiency (from 93.8% in FY21 to 89% in FY22)

### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap may be improved – currently at INR 0.97/ kWh
  - Negative PBT ((-8%) of Revenue booked)
  - Total Subsidy disbursement – 91% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables ((-5%) of Revenue booked)
- Days Payable may be reduced – currently at 130 days as compared to LPS norm of 45 days
- Days Receivables may be reduced – currently at 148 days (for max. score, expected less than or equal to 60 days)
- Debt Service Coverage Ratio (cash adjusted) may be improved, currently at (-0.38) (for max. score, expected greater than or equal to 1.1)
- Leverage (Cash Adjusted) may be improved, currently at (-16.17) (for max. score, expected greater than 0 upto 5)

#### Performance Excellence

- Distribution losses may be reduced – current losses are higher than SERC-approved levels
- Billing Efficiency can be improved – currently at 79.9% (for max. score, expected is 92%+)
- Collection Efficiency can be improved – currently at 89% (for max. score, expected is 99.5%+)

#### External Environment

- Automatic pass-through of fuel costs can be implemented
- Govt. support required for taking over of Discom losses

#### Specific Disincentives

- Managing Director and Director Finance should be exclusive
- Regulator can address the uncovered revenue gap – currently at 6% of ARR

# South Bihar Power Distribution Company Limited (SBPDCL)



## Overview of SBPDCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	29-Jun-2012
Nature of operations	Distribution
Area of operations	17 districts of Southern Bihar
Number of customers	6,536,456
% Agricultural customers	4.03%
% C&I customers	9.30%
Gross input energy	22,092 MU (17% change) <sup>3</sup>
Total energy sold	16,760 MU (31% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 12,756 Cr (23% change) <sup>3</sup>
Profit after tax	INR -1,288 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

3. Compared to FY 2021.

## Key Insights

- SBPDCL score deteriorated from 8.1 (10<sup>th</sup> Ratings) to 7.2 (11<sup>th</sup> Ratings).
- Major improvement in Uncovered Revenue Gap metric in FY22
- Major deterioration in ACS-ARR Gap metric in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts





## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated from 1.34 in FY21 to 1.56 in FY22
  - PBT (excl. Other Subsidy) improved from (-21%) of Revenue booked in FY21 to (-18%) in FY22
  - Tariff Subsidy received improved from 97% of subsidy booked in FY21 to 98% in FY22. Further, the DISCOM received Other Subsidy of 8% of Revenue booked in FY22
  - Cash adjustment due to Trade Receivables decline from (-11%) of Revenue booked in FY21 to (-16%) in FY22
- AT&C losses improved from 37.6% in FY21 to 35.3% in FY22 – driven majorly by improvement in billing efficiency (from 72.4% in FY21 to 77.9% in FY22)

### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap may be improved – currently at INR 1.56/ kWh
  - Negative PBT ((-10%) of Revenue booked)
  - Total Subsidy disbursement – 98% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables ((-16%) of Revenue booked)
- Days Payable may be reduced – currently at 189 days as compared to LPS norm of 45 days
- Days Receivables may be reduced – currently at 339 days (for max. score, expected less than or equal to 60 days)
- Liquidity can be improved – Adjusted Quick Ratio currently at 0.34 (for max. score, expected is 1.00)
- Debt Service Coverage Ratio (cash adjusted) may be improved, currently at (-2.17) (for max. score, expected greater than or equal to 1.1)
- Leverage (Cash Adjusted), currently at (-3.15) (for max. score, expected greater than 0 upto 5)

#### Performance Excellence

- Distribution losses may be reduced – current losses are higher than SERC-approved levels
- Billing Efficiency can be improved – currently at 77.9% (for max. score, expected is 92%+)
- Collection Efficiency can be improved – currently at 83.0% (for max. score, expected is 99.5%+)

#### External Environment

- Automatic pass-through of fuel costs can be implemented
- Govt. support required for taking over of Discom losses

#### Specific Disincentives

- Ind-AS can be complied to remove audit qualification
- Managing Director and Director Finance should be exclusive

# Chhattisgarh State Power Distribution Company Limited (CSPDCL)



Rank  
34 out of 51



Grade

## Overview of CSPDCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	19-May-2003
Nature of operations	Distribution
Area of operations	State of Chhattisgarh
Number of customers	6,027,143
% Agricultural customers	8.19%
% C&I customers	6.92%
Gross input energy	37,951 MU (8% change) <sup>3</sup>
Total energy sold	31,124 MU (6% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 17,801 Cr (10% change) <sup>3</sup>
Profit after tax	INR -1,214 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

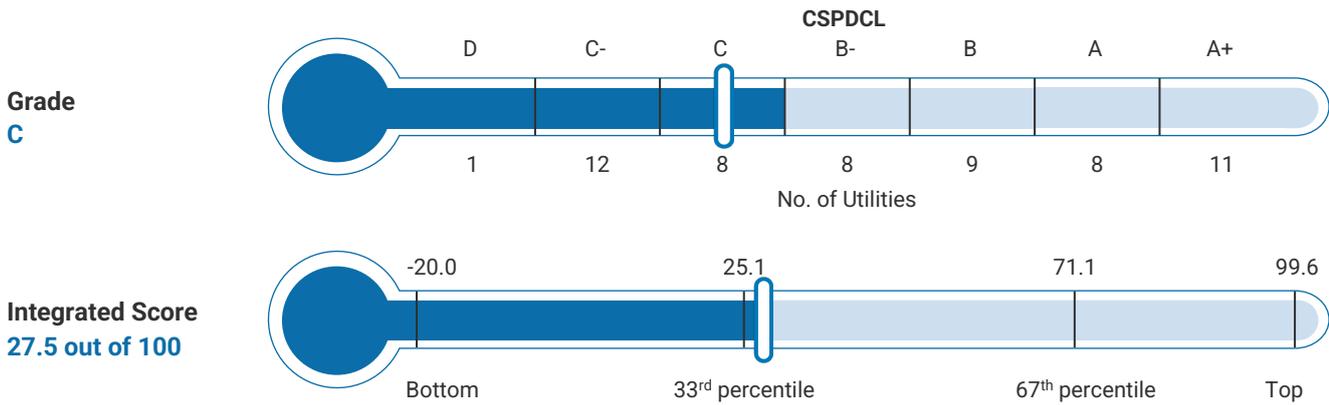
3. Compared to FY 2021.

## Key Insights

- CSPDCL score improved from 25.1 (10<sup>th</sup> Ratings) to 27.5 (11<sup>th</sup> Ratings).
- Major improvement in Uncovered Revenue Gap, Tariff Cycle delay metrics in FY22
- Major deterioration in ACS-ARR, loss takeover by state govt, Adjusted Quick Ratio metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

CSPDCL achieved Rank 34 (out of 51 utilities), with Grade C and Integrated Score of 27.5 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

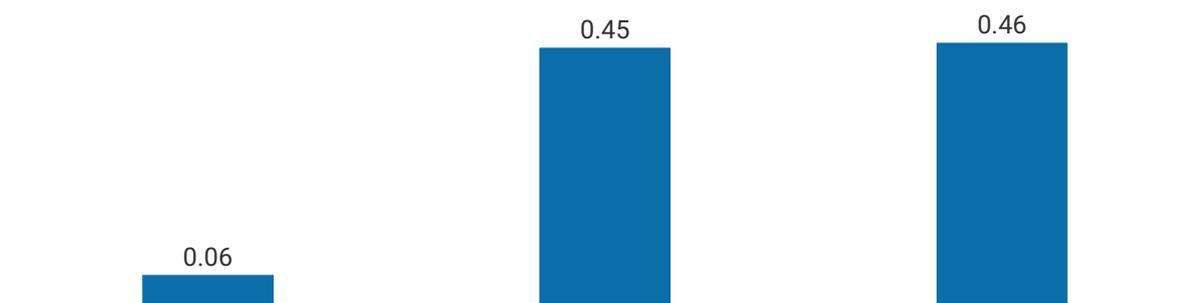


## Summary of Performance across Metrics

Integrated Score: 27.5 out of 100					
Base Rating Score: 29.5					
Financial Sustainability		Performance Excellence		External Environment	
ACS – ARR gap (cash adjusted)	14.8	75	Distribution Loss (SERC approved)	4.8	13
Days Receivable	0.0	3	Billing Efficiency	0.0	5
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	4.7	5
Adjusted Quick Ratio	0.9	10	Corporate Governance	0.0	1
Debt Service Coverage Ratio (cash adjusted)	0.0	10	Subsidy Realized (last 3 FYs)	9.0	12
Leverage Debt/EBITDA (cash adjusted)	0.0	7	Loss Takeover by State Government	0.0	3
			Government Dues (Last 3 FYs)	3.0	3
			Tariff Cycle Timelines	1.0	1
			Auto Pass Through of Fuel Costs	1.0	1
Specific Disincentives: -2.0					
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	-1.0	-4
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	-1.0	-3
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	0.0	-4.5
			Tariff Independent of Subsidy	0.0	-1
			Uncovered Revenue Gap (Current Year)	0.0	-4
			Regulatory Assets	0.0	-5

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



FY 2020	FY 2021	FY 2022
2.53   0.35   -2.24	2.33   0.57   -1.64	2.45   0.05   -1.52

ACS - ARR Gap across all DISCOMs – Highest | Median | Lowest

ACS-ARR Gap – Weighted Average for 11th Ratings: **0.40 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **184% (deteriorating)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	17.27	4.55	77%	96%	100%	130%
Power purchase cost	16.25	4.28	95%	84%	74%	50%
O&M expenses	1.87	0.49	38%	14%	9%	1%
Interest	0.42	0.11	19%	7%	3%	0%
Other expenses	0.48	0.13				
Gap / Surplus	-1.74	0.46	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated marginally from 0.45 in FY21 to 0.46 in FY22
  - PBT (excl. Other Subsidy) declined from (-4%) of Revenue booked in FY21 to (-7%) in FY22
  - Tariff Subsidy received improved from 105% of subsidy booked in FY21 to 110% in FY22.
  - Cash adjustment due to Trade Receivables has improved from (-8%) of Revenue booked in FY21 to (-5%) in FY22
- AT&C losses improved from 20.4% in FY21 to 18.1% in FY22 – driven majorly by improvement in Collection Efficiency (from 95.7% in FY21 to 100% in FY22)

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### Key Strengths

#### Financial Sustainability

- Healthy Debt levels – currently Debt as % of Revenue booked is 20%, as compared to National median of ~50%

#### Performance Excellence

- Collection Efficiency currently at 100%

#### External Environment

- Discom implements automatic pass-through of fuel costs

---

### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap can be improved – currently at INR 0.46/ kWh
  - Negative PBT ((-7%) of Revenue booked)
  - Total Subsidy disbursement – 110% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables ((-5%) of Revenue booked)
- Days Payable may be reduced – currently at 214 days as compared to LPS norm of 45 days
- Days Receivables may be reduced – currently at 192 days (for max. score, expected less than or equal to 60 days)
- Adjusted Quick Ratio can be improved, currently at 0.36 (for max. score, expected is 1.00)
- Debt Service Coverage Ratio (cash adjusted) may be improved – currently at (-0.72) (for max. score, expected greater than or equal to 1.1)
- Leverage (cash adjusted) may be improved – currently at (-4.22) (for max. score, expected greater than 0 upto 5)

#### Performance Excellence

- Billing Efficiency can be improved – currently at 81.9% (for max. score, expected is 92%+)
- Distribution losses may be reduced – current losses are higher than SERC-approved levels

#### External Environment

- Govt. Support required for taking over of Discom losses

#### Specific Disincentives

- Ind-AS can be complied to remove Audit Qualification
- Operational Audit Committee can be constituted

# DNH Power Distribution Corporation Limited (DNHPDCL)



## Overview of DNHPDCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	13-Jul-2012
Nature of operations	Distribution
Area of operations	UT of Dadra & Nagar Haveli
Number of customers	89,219
% Agricultural customers	1.35%
% C&I customers	12.67%
Gross input energy	7,098 MU (23% change) <sup>3</sup>
Total energy sold	6,648 MU (24% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 3,588 Cr (23% change) <sup>3</sup>
Profit after tax	INR 106 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

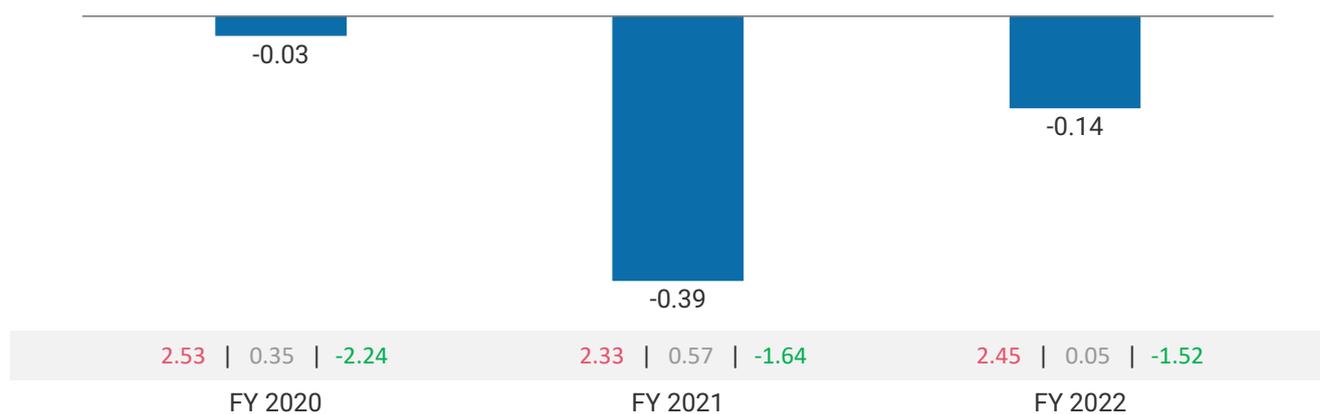
3. Compared to FY 2021.

## Key Insights

- DNHPDCL score declined marginally from 96.7 (10<sup>th</sup> Ratings) to 96.6 (11<sup>th</sup> Ratings).
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts



## Analysis of ACS-ARR Gap (In INR / kWh)



ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **-0.18 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-115% (improving)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	3.57	5.02	77%	96%	100%	130%
Power purchase cost	3.41	4.80	95%	84%	74%	50%
O&M expenses	0.04	0.06	38%	14%	9%	1%
Interest	0	0.01	19%	7%	3%	0%
Other expenses	0.02	0.02				
Gap / Surplus	0.10	-0.14	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated from (-0.39) in FY21 to (-0.14) in FY22
    - PBT (excl. Other Subsidy) declined from 9% of Revenue booked in FY21 to 3% in FY22
    - Cash adjustment due to Trade Receivables improved from (-2%) of Revenue booked in FY21 to (-1%) in FY22.
  - AT&C losses improved from 5.2% in FY21 to 3.5% in FY22 – driven both by improvement in Collection Efficiency (from 98.4% in FY21 to 99.4% in FY22) and Billing Efficiency (from 96.4% in FY21 to 97.1% in FY22).
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 33%ile performers in ACS-ARR Gap (cash adjusted)
  - Positive PBT (3% of Revenue booked)
  - Negative cash adjustment due to Trade Receivables (-1% of Revenue booked)
- Amongst the top 20%ile performers in Days Payable to GenCos & TransCos – currently at 32 days as compared to LPS norm of 45 days
- Amongst the top 33%ile performers in Days Receivable – currently at 36 days as against National median of ~71 days
- Healthy Debt Service Coverage Ratio, currently at 27.51
- Healthy Adjusted Quick Ratio, currently at 2.04
- Healthy Debt levels, currently Debt as % of Revenue booked is at 0%, as compared to National median of ~50%

#### Performance Excellence

- Amongst the top 10%ile performers in Billing Efficiency currently at 97.1%
  - Achieved SERC - approved Distribution loss target
- 

### Key Improvement Areas

#### External Environment

- Automatic pass-through of fuel costs can be implemented

#### Specific Disincentives

- Preparation of quarterly accounts can be undertaken by Discom
- Tariff Petition should be filed within the rating timelines

# Dakshin Gujarat Vij Company Limited (DGVCL)



## Overview of DGVCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	15-Sep-2003
Nature of operations	Distribution
Area of operations	7 districts in the state of Gujarat namely Bharuch, Narmada, Surat (except part of Surat City), Tapi, Dangs, Navsari and Valsad
Number of customers	3,512,052
% Agricultural customers	5.93%
% C&I customers	14.68%
Gross input energy	26,782 MU (35% change) <sup>3</sup>
Total energy sold	24,748 MU (41% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 17,396 Cr (40% change) <sup>3</sup>
Profit after tax	INR 95 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

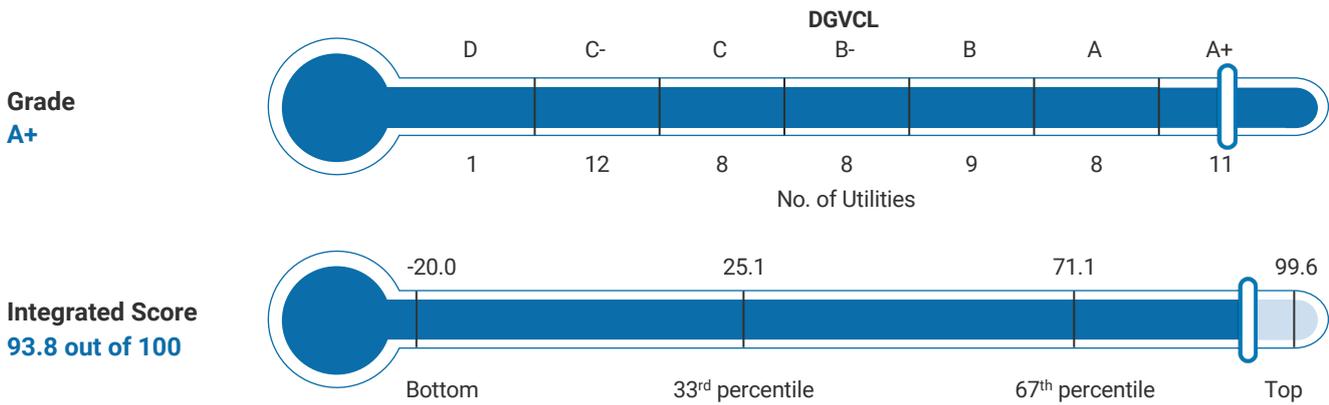
3. Compared to FY 2021.

## Key Insights

- DGVCL score declined from 99.4 (10<sup>th</sup> Ratings) to 93.8 (11<sup>th</sup> Ratings).
- Major decline in ACR-ARR gap metric in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

DGVCL achieved Rank 6 (out of 51 utilities), with Grade A+ and Integrated Score of 93.8 out of 100. Further, it exhibited a Declining Trajectory w.r.t. Integrated Score

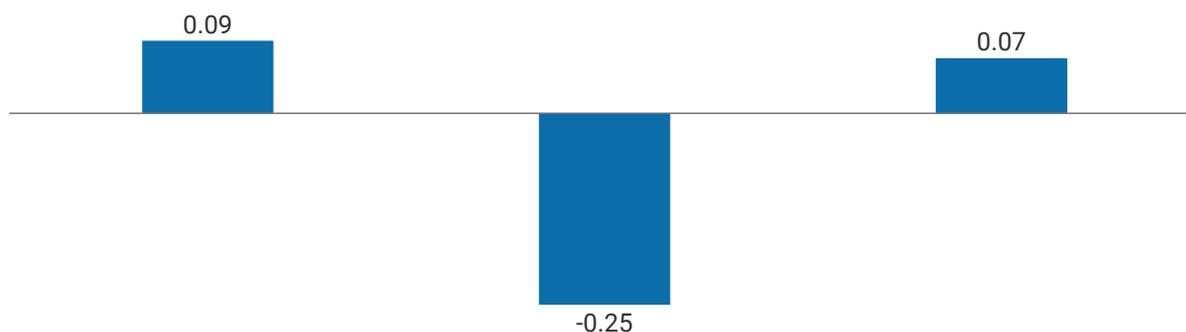


## Summary of Performance across Metrics

Integrated Score: 93.8 out of 100									
Base Rating Score: 94.0									
Financial Sustainability			Performance Excellence			External Environment			
	70.2	75		12.2	13		11.6	12	
ACS – ARR gap (cash adjusted)	30.2	35	Distribution Loss (SERC approved)	2.0	2	Subsidy Realized (last 3 FYs)	4.0	4	
Days Receivable	3.0	3	Billing Efficiency	5.0	5	Loss Takeover by State Government	3.0	3	
Days Payable to GenCos & TransCos	10.0	10	Collection Efficiency	4.5	5	Government Dues (Last 3 FYs)	2.6	3	
Adjusted Quick Ratio	10.0	10	Corporate Governance	0.8	1	Tariff Cycle Timelines	1.0	1	
Debt Service Coverage Ratio (cash adjusted)	10.0	10				Auto Pass Through of Fuel Costs	1.0	1	
Leverage Debt/EBITDA (cash adjusted)	7.0	7							
Specific Disincentives: -0.3									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	0.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	-0.3	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



FY 2020	FY 2021	FY 2022
2.53   0.35   -2.24	2.33   0.57   -1.64	2.45   0.05   -1.52

ACS - ARR Gap across all DISCOMs – Highest | Median | Lowest

ACS-ARR Gap – Weighted Average for 11th Ratings: **0.00 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-13% (improving)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	17.09	6.38	77%	96%	100%	130%
Power purchase cost	16.12	6.02	95%	84%	74%	50%
O&M expenses	0.66	0.25	38%	14%	9%	1%
Interest	0.09	0.03	19%	7%	3%	0%
Other expenses	0.41	0.15				
Gap / Surplus	-0.19	0.07	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated from (-0.25) in FY21 to 0.07 in FY22
    - Tariff Subsidy received remained constant at 100% of subsidy booked in FY21 and FY22.
    - Cash adjustment due to Trade Receivables has declined from 3% of Revenue booked in FY21 to (-2%) in FY22.
  - AT&C losses improved from 7.4% in FY21 to 4.8% in FY22 – driven majorly by improvement in Billing Efficiency (from 92.6% in FY21 to 97% in FY22).
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 10%ile performers in Days Payable to Gencos and Transcos– currently at 0 days as compared to LPS norm of ~45 days
- Amongst the top 10%ile performers in Days Receivable – currently at 13 days as against National median of ~71 days
- Healthy Adjusted Quick Ratio, currently at 2.73
- Healthy Debt Service Coverage Ratio, currently at 2.29
- Healthy Cash adjusted Leverage, currently at 0.09
- Healthy Debt levels – currently Debt as % of Revenue booked is 0%, as compared to National median of ~50%

#### Performance Excellence

- Amongst the top 10%ile performers in Billing Efficiency
- Achieved SERC - approved Distribution loss target

#### External Environment

- Discom implements automatic pass-through of fuel costs
- 

### Key Improvement Areas

#### Specific Disincentives

- Tariff Petition should be filed within the rating timelines

# Madhya Gujarat Vij Company Limited (MGVCL)



## Overview of MGVCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	15-Sep-2003
Nature of operations	Distribution
Area of operations	7 District in the State of Gujarat i.e., Kheda, Panch Mahal, Dahod, Chhota udepur, Vadodara, Mahisagar and Anand
Number of customers	3,409,802
% Agricultural customers	5.91%
% C&I customers	11.51%
Gross input energy	13,847 MU (19% change) <sup>3</sup>
Total energy sold	12,209 MU (23% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 7,992 Cr (21% change) <sup>3</sup>
Profit after tax	INR 103 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

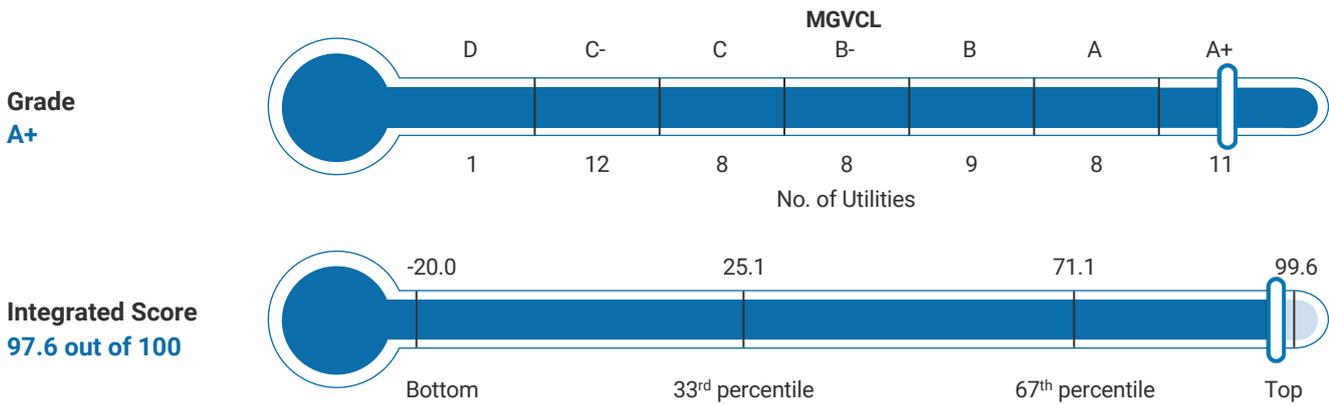
3. Compared to FY 2021.

## Key Insights

- MGVCL score declined from 98.0 (10<sup>th</sup> Ratings) to 97.6 (11<sup>th</sup> Ratings).
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

MGVCL achieved Rank 3 (out of 51 utilities), with Grade A+ and Integrated Score of 97.6 out of 100. Further, it exhibited a Stable Trajectory w.r.t. Integrated Score



## Summary of Performance across Metrics

Integrated Score: 97.6 out of 100									
Base Rating Score: 97.8									
Financial Sustainability			Performance Excellence			External Environment			
75.0 75			11.3 13			11.5 12			
ACS – ARR gap (cash adjusted)	35.0	35	Distribution Loss (SERC approved)	2.0	2	Subsidy Realized (last 3 FYs)	4.0	4	
Days Receivable	3.0	3	Billing Efficiency	3.8	5	Loss Takeover by State Government	3.0	3	
Days Payable to GenCos & TransCos	10.0	10	Collection Efficiency	4.8	5	Government Dues (Last 3 FYs)	2.5	3	
Adjusted Quick Ratio	10.0	10	Corporate Governance	0.8	1	Tariff Cycle Timelines	1.0	1	
Debt Service Coverage Ratio (cash adjusted)	10.0	10				Auto Pass Through of Fuel Costs	1.0	1	
Leverage Debt/EBITDA (cash adjusted)	7.0	7							
Specific Disincentives: -0.3									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	0.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	-0.3	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric



## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated marginally from (-0.13) in FY21 to (-0.05) in FY22
    - Tariff Subsidy received remained constant at 100% of subsidy booked in FY21 and FY22.
  - AT&C losses improved from 10% in FY21 to 8.7% in FY22 – driven majorly by improvement in Billing Efficiency (from 90% in FY21 to 92.3% in FY22)
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 20%ile performers in Days Receivable – currently at 18 days as against National median of ~71 days
- Amongst the top 10%ile performers in Days Payable to Gencos and Transcos – currently at ~0 days as compared to LPS norm of ~45 days
- Healthy Adjusted Quick Ratio, currently at 2.77
- Healthy Debt Service Coverage Ratio, currently at 5.84
- Healthy Cash adjusted Leverage, currently at 0.11
- Healthy Debt levels – currently Debt as % of Revenue booked is 1%, as compared to National median of ~50%

#### Performance Excellence

- Amongst the top 20%ile performers in Billing Efficiency, currently at 92.3%
- Achieved SERC - approved Distribution loss target

#### External Environment

- Discom implements automatic pass-through of fuel costs
- 

### Key Improvement Areas

#### Specific Disincentives

- Tariff Petition should be filed within the rating timelines

# Paschim Gujarat Vij Company Limited (PGVCL)



## Overview of PGVCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	15-Sep-2003
Nature of operations	Distribution
Area of operations	Saurashtra and Kutch regions
Number of customers	6,385,410
% Agricultural customers	16.98%
% C&I customers	12.09%
Gross input energy	40,574 MU (11% change) <sup>3</sup>
Total energy sold	32,213 MU (13% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 21,111 Cr (21% change) <sup>3</sup>
Profit after tax	INR 97 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

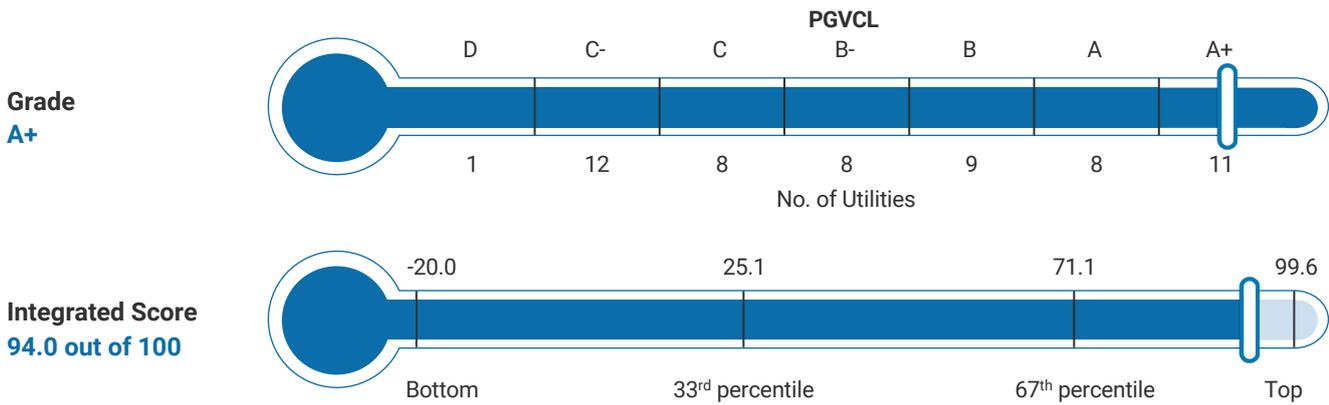
3. Compared to FY 2021.

## Key Insights

- PGVCL score improved from 91.0 (10<sup>th</sup> Ratings) to 94.0 (11<sup>th</sup> Ratings).
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

PGVCL achieved Rank 5 (out of 51 utilities), with Grade A+ and Integrated Score of 94.0 out of 100. Further, it exhibited a Stable Trajectory w.r.t. Integrated Score

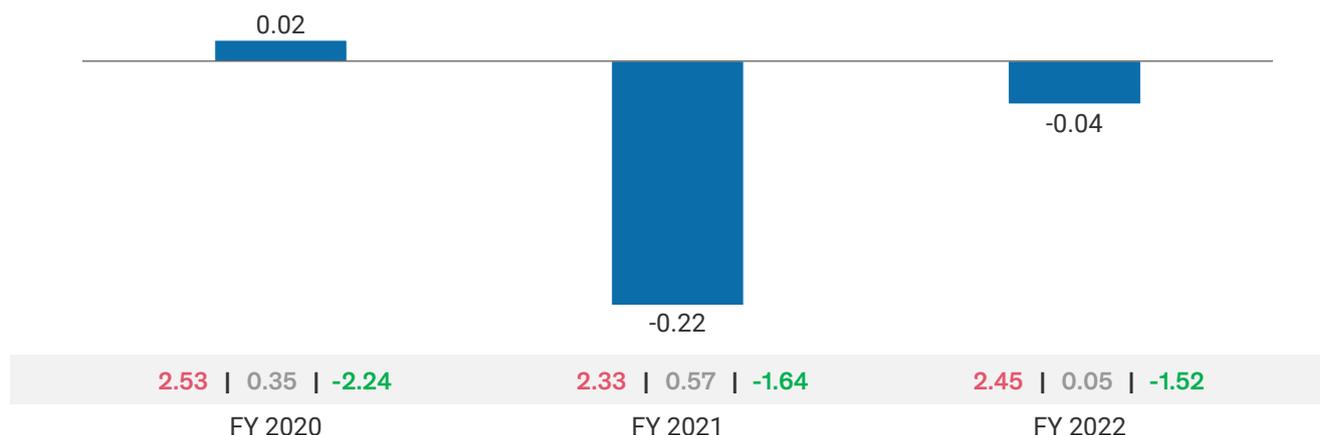


## Summary of Performance across Metrics

Integrated Score: 94.0 out of 100									
Base Rating Score: 94.3									
Financial Sustainability			Performance Excellence			External Environment			
ACS – ARR gap (cash adjusted)	35.0	35	Distribution Loss (SERC approved)	1.8	2	Subsidy Realized (last 3 FYs)	4.0	4	
Days Receivable	3.0	3	Billing Efficiency	0.4	5	Loss Takeover by State Government	3.0	3	
Days Payable to GenCos & TransCos	10.0	10	Collection Efficiency	5.0	5	Government Dues (Last 3 FYs)	2.1	3	
Adjusted Quick Ratio	10.0	10	Corporate Governance	1.0	1	Tariff Cycle Timelines	1.0	1	
Debt Service Coverage Ratio (cash adjusted)	10.0	10				Auto Pass Through of Fuel Costs	1.0	1	
Leverage Debt/EBITDA (cash adjusted)	7.0	7							
Specific Disincentives: -0.3									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	0.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	-0.3	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **-0.08 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-201% (improving)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	21.03	0.08	77%	96%	100%	130%
Power purchase cost	17.94	4.42	95%	84%	74%	50%
O&M expenses	1.38	0.34	38%	14%	9%	1%
Interest	0.11	0.03	19%	7%	3%	0%
Other expenses	1.45	0.36				
Gap / Surplus	0.16	-0.04	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated from (-0.22) in FY21 to (-0.04) in FY22. Major recasting in FY21 accounts.
    - Tariff Subsidy received remained constant at 100% of subsidy booked in FY21 and FY22.
    - Cash adjustment due to Trade Receivables decline from 3% of Revenue booked in FY21 to 0% in FY22
  - AT&C losses improved from 17.9% in FY21 to 16.7% in FY22 – driven majorly by improvement in Billing Efficiency (from 82.1% in FY21 to 83.6% in FY22)
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 25%ile performers in Days Receivable – currently at 23 days as against National median of 71 days
- Amongst the top 10%ile performers in Days Payable to Gencos and Transcos – currently at 0 days as compared to LPS norm of ~45 days
- Healthy Adjusted Quick Ratio, currently at 3.39
- Healthy Debt Service Coverage Ratio, currently at 10.25
- Healthy Cash adjusted Leverage, currently at 0.15
- Healthy Debt levels – currently Debt as % of Revenue booked is 1%, as compared to National median of ~50%

#### Performance Excellence

- Collection Efficiency currently at 99.6%

#### External Environment

- Discom implements automatic pass-through of fuel costs
- 

### Key Improvement Areas

#### Specific Disincentives

- Tariff Petition should be issued within the rating timelines

# Uttar Gujarat Vij Company Limited (UGVCL)



## Overview of UGVCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	15-Sep-2003
Nature of operations	Distribution
Area of operations	Six full districts in northern region of Gujarat and three-part districts in western and central areas
Number of customers	3,936,893
% Agricultural customers	10.46%
% C&I customers	12.30%
Gross input energy	29,420 MU (11% change) <sup>3</sup>
Total energy sold	26,157 MU (11% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 15,687 Cr (21% change) <sup>3</sup>
Profit after tax	INR 78 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

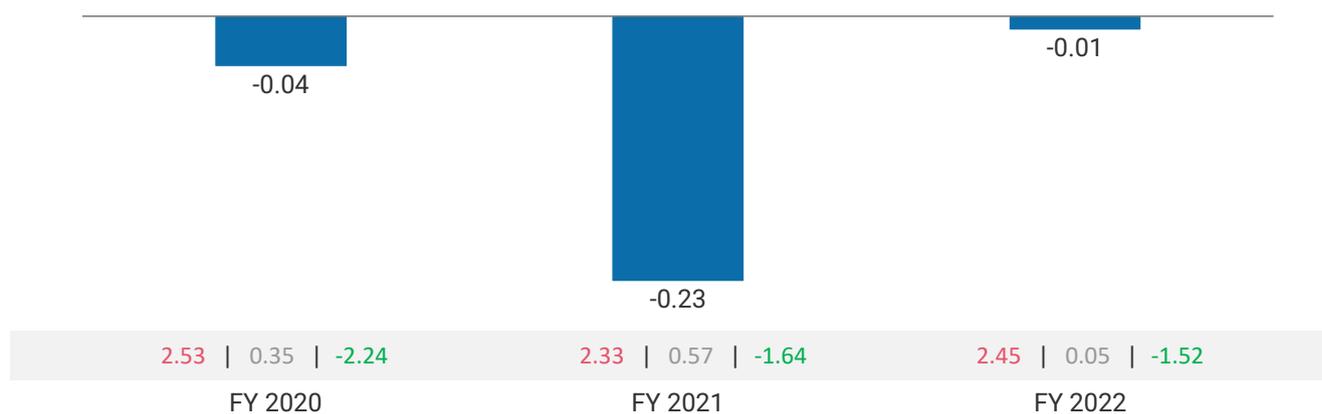
3. Compared to FY 2021.

## Key Insights

- UGVCL score improved from 94.9 (10<sup>th</sup> Ratings) to 99.1 (11<sup>th</sup> Ratings).
- Major deterioration in ACR-ARR gap metric in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts



## Analysis of ACS-ARR Gap (In INR / kWh)



### ACS - ARR Gap across all DISCOMs – Highest | Median | Lowest

ACS-ARR Gap – Weighted Average for 11th Ratings: **-0.07 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **48% (deteriorating)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	15.59	5.30	77%	96%	100%	130%
Power purchase cost	14.24	4.84	95%	84%	74%	50%
O&M expenses	0.84	0.28	38%	14%	9%	1%
Interest	0.08	0.03	19%	7%	3%	0%
Other expenses	0.40	0.14				
Gap / Surplus	0.04	-0.01	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated from (-0.23) in FY21 to (-0.01) in FY22. Major recasting in FY21 accounts.
    - PBT (excl. Other Subsidy) declined marginally from 1% of Revenue booked in FY21 to 0.8% in FY22
    - Tariff Subsidy received remained constant at 100% of subsidy booked in FY21 and FY22
    - Cash adjustment due to Trade Receivables declined from 4% of Revenue booked in FY21 to (-1%) in FY22
  - AT&C losses improved marginally from 6.8% in FY21 to 6.7% in FY22
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 10%ile performers in Days Receivable – currently at 12 days as against National median of ~71 days
- Amongst the top 10%ile performers in Days Payable to Gencos and Transcos – currently at 0 days as compared to LPS norm of ~45 days
- Healthy Cash adjusted Leverage, currently at 0.11
- Healthy Adjusted Quick Ratio, currently at 2.98
- Healthy Debt Service Coverage Ratio, currently at 5.04
- Healthy Debt levels – currently Debt as % of Revenue booked is ~0.4%, as compared to National median of ~50%

#### Performance Excellence

- Amongst the top 10%ile performers in Billing Efficiency currently at 93.9%
- Achieved SERC - approved Distribution loss target

#### External Environment

- Discom implements automatic pass-through of fuel costs
- 

### Key Improvement Areas

#### Specific Disincentives

- Tariff Petition should be filed within the rating timelines

# Dakshin Haryana Bijli Vitran Nigam Limited (DHBVNL)



## Overview of DHBVNL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	15-Mar-1999
Nature of operations	Distribution
Area of operations	Southern part of the State of Haryana
Number of customers	3,960,432
% Agricultural customers	8.40%
% C&I customers	11.39%
Gross input energy	33,147 MU (6% change) <sup>3</sup>
Total energy sold	27,752 MU (11% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 18,574 Cr (15% change) <sup>3</sup>
Profit after tax	INR 179 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

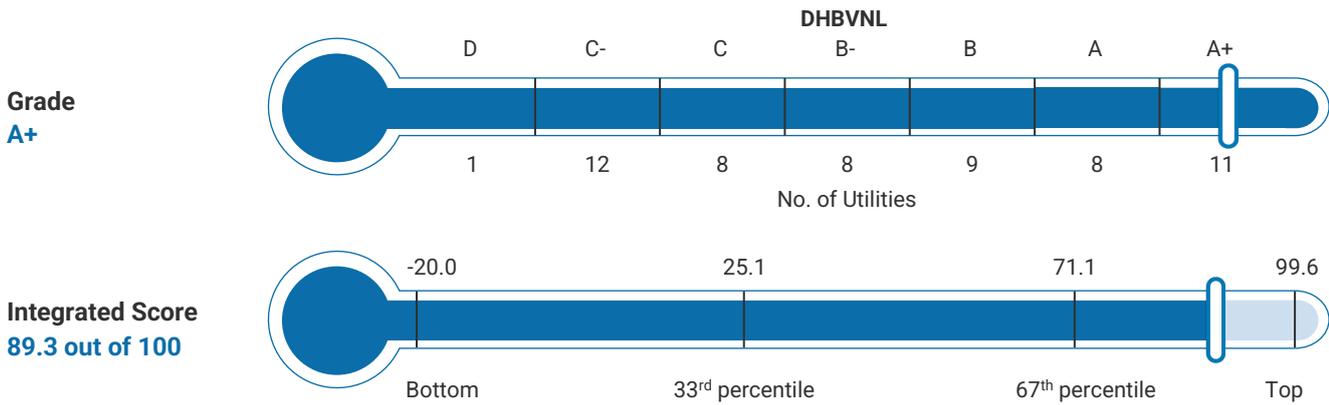
3. Compared to FY 2021.

## Key Insights

- DHBVNL score improved from 85.7 (10<sup>th</sup> Ratings) to 89.3 (11<sup>th</sup> Ratings).
- Major improvement in Adjusted Quick Ratio metric in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

DHBVNL achieved Rank 9 (out of 51 utilities), with Grade A+ and Integrated Score of 89.3 out of 100. Further, it exhibited a Stable Trajectory w.r.t. Integrated Score

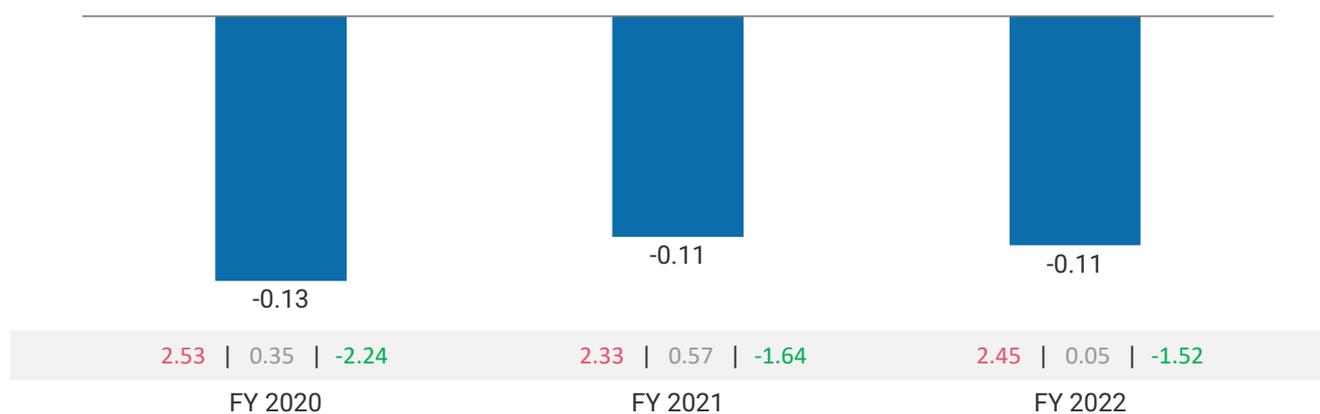


## Summary of Performance across Metrics

Integrated Score: 89.3 out of 100									
Base Rating Score: 90.3									
Financial Sustainability			Performance Excellence			External Environment			
ACS – ARR gap (cash adjusted)	35.0	35	Distribution Loss (SERC approved)	2.0	2	Subsidy Realized (last 3 FYs)	4.0	4	
Days Receivable	3.0	3	Billing Efficiency	1.4	5	Loss Takeover by State Government	3.0	3	
Days Payable to GenCos & TransCos	8.0	10	Collection Efficiency	5.0	5	Government Dues (Last 3 FYs)	2.7	3	
Adjusted Quick Ratio	6.1	10	Corporate Governance	1.0	1	Tariff Cycle Timelines	1.0	1	
Debt Service Coverage Ratio (cash adjusted)	10.0	10				Auto Pass Through of Fuel Costs	1.0	1	
Leverage Debt/EBITDA (cash adjusted)	7.0	7							
Specific Disincentives: -1.0									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	-1.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	0.0	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **-0.11 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **7% (deteriorating)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	18.76	5.66	77%	96%	101%	130%
Power purchase cost	15.82	4.77	95%	84%	74%	50%
O&M expenses	1.76	0.53	38%	14%	9%	1%
Interest	0.31	0.09	19%	7%	3%	0%
Other expenses	0.51	0.15				
Gap / Surplus	0.37	-0.11	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap remained constant at (-0.11) in FY21 and FY22
    - Tariff Subsidy received remained constant at 100% of subsidy booked in FY21 and FY22.
  - AT&C losses improved from 16.9% in FY21 to 13.6% in FY22 – driven majorly by improvement in Billing Efficiency (from 83.1% in FY21 to 86.4% in FY22)
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top performers in ACS-ARR Gap (cash adjusted)
  - Positive PBT (1% of Revenue booked)
  - High Total Subsidy disbursement – 100% of Subsidy booked
  - Positive cash adjustment due to Trade Receivables
- Amongst the top 33<sup>rd</sup>ile performers in Days Receivable – currently at 40 days as against National median of 71 days
- Healthy Debt Service Coverage Ratio (cash adjusted), currently at 1.78
- Healthy Cash adjusted Leverage, currently at 2.96
- Healthy Debt levels – currently Debt as % of Revenue booked is 19%, as compared to National median of ~50%

#### Performance Excellence

- Collection Efficiency currently at 100%
- Achieved SERC - approved Distribution loss target

#### External Environment

- Discom implements automatic pass-through of fuel costs
- 

### Key Improvement Areas

#### Specific Disincentives

- Employee Liabilities can be addressed to remove audit qualification

# Uttar Haryana Bijli Vitran Nigam Limited (UHBVNL)



## Overview of UHBVNL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	15-Mar-1999
Nature of operations	Distribution
Area of operations	Northern region in the State of Haryana
Number of customers	3,422,373
% Agricultural customers	9.71%
% C&I customers	12.47%
Gross input energy	23,709 MU (5% change) <sup>3</sup>
Total energy sold	19,749 MU (9% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 14,173 Cr (13% change) <sup>3</sup>
Profit after tax	INR 670 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

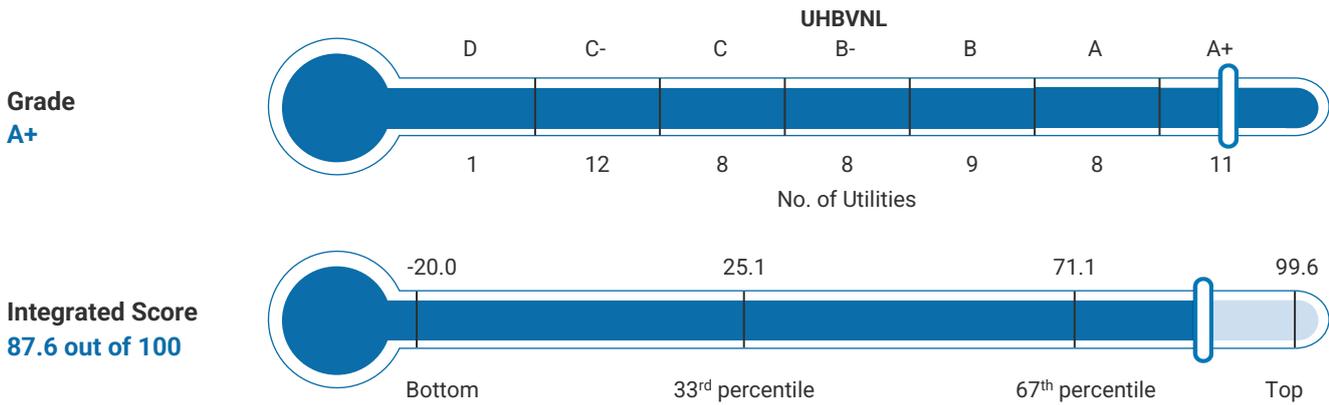
3. Compared to FY 2021.

## Key Insights

- UHBVNL score improved from 74.7 (10<sup>th</sup> Ratings) to 87.6 (11<sup>th</sup> Ratings).
- Major improvement in DSCR, Adjusted Quick Ratio, Days Payables metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

UHBVNL achieved Rank 10 (out of 51 utilities), with Grade A+ and Integrated Score of 87.6 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

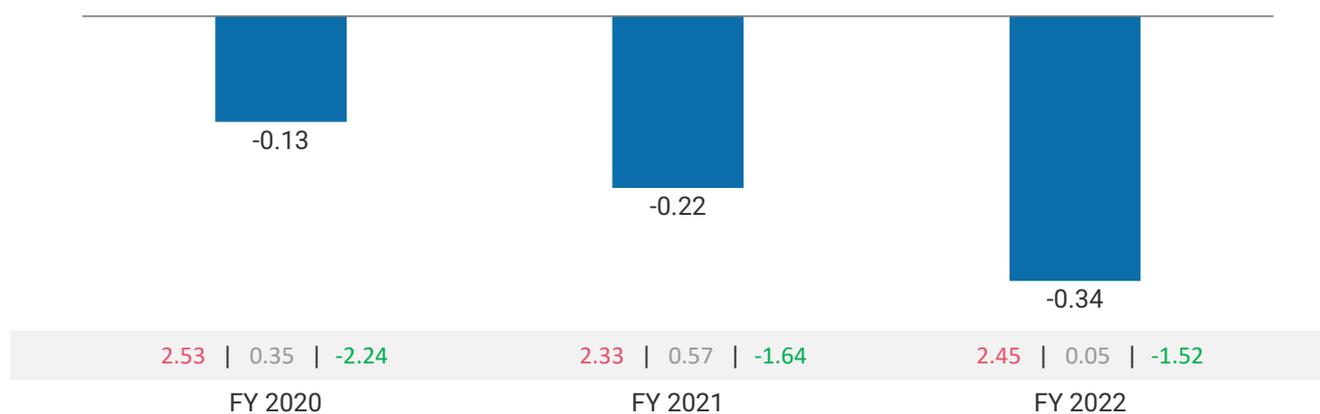


## Summary of Performance across Metrics

Integrated Score: 87.6 out of 100											
Base Rating Score: 88.6											
Financial Sustainability		Performance Excellence		External Environment							
67.8	75	9.0	13	11.9	12						
ACS – ARR gap (cash adjusted)	35.0	35	●	Distribution Loss (SERC approved)	2.0	2	●	Subsidy Realized (last 3 FYs)	4.0	4	●
Days Receivable	3.0	3	●	Billing Efficiency	1.0	5	○	Loss Takeover by State Government	3.0	3	●
Days Payable to GenCos & TransCos	10.0	10	●	Collection Efficiency	5.0	5	●	Government Dues (Last 3 FYs)	2.9	3	●
Adjusted Quick Ratio	2.8	10	○	Corporate Governance	1.0	1	●	Tariff Cycle Timelines	1.0	1	●
Debt Service Coverage Ratio (cash adjusted)	10.0	10	●					Auto Pass Through of Fuel Costs	1.0	1	●
Leverage Debt/EBITDA (cash adjusted)	7.0	7	●								
Specific Disincentives: -1.0											
● Auditor's Adverse Opinion	0.0	-15		Audit Qualifications	0.0	-4		Tariff Independent of Subsidy	0.0	-1	
● Availability of Audited Accounts	0.0	-15		Governance (Audit Committee, Exclusive MD & DF)	-1.0	-3		Uncovered Revenue Gap (Current Year)	0.0	-4	
● Default to Banks/FIs	0.0	-15		Tariff Cycle Delays	0.0	-4.5		Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **-0.28 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-58% (improving)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	14.30	6.03	77%	96%	101%	130%
Power purchase cost	11.41	4.81	95%	84%	80%	74%
O&M expenses	1.31	0.55	38%	14%	9%	1%
Interest	0.34	0.14	19%	7%	3%	2%
Other expenses	0.44	0.19				
Gap / Surplus	0.79	-0.34	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from (-0.22) in FY21 to (-0.34) in FY22
    - PBT (excl. Other Subsidy) improved from 3% of Revenue booked in FY21 to 5% in FY22
    - Tariff Subsidy received remained constant at 100% of subsidy booked in FY21 & FY22.
  - AT&C losses improved from 17.2% in FY21 to 14.0% in FY22 driven majorly by improvement in Billing Efficiency (from 82.8% in FY21 to 86.0% in FY22)
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 20%ile performers in ACS-ARR Gap (cash adjusted)
  - Positive PBT (5% of Revenue booked)
  - High Total Subsidy disbursement – 100% of Subsidy booked
  - Positive cash adjustment due to Trade Receivables
- Amongst the top 20%ile performers in Days Payable to Gencos and Trancos – currently at 42 days as compared to LPS norm of ~45 days
- Amongst the top 10%ile performers in Days Receivable – currently at 8 days as against National median of ~71 days
- Healthy Debt Service Coverage Ratio currently at 1.81
- Healthy Cash adjusted Leverage, currently at 3.06

#### Performance Excellence

- Achieved SERC - approved Distribution loss target
- Collection Efficiency currently at 100%

#### External Environment

- Discom implements automatic pass-through of fuel costs
- 

### Key Improvement Areas

#### Specific Disincentives

- Managing Director should be exclusive

# Himachal Pradesh State Electricity Board Limited (HPSEBL)



Rank  
23 out of 51

Grade

## Overview of HPSEBL<sup>1</sup>

Ownership	State Government Company
Date of incorporation	3-Dec-2009
Nature of operations	Generation & Distribution
Area of operations	State of Himachal Pradesh
Number of customers	2,651,217
% Agricultural customers	1.48%
% C&I customers	12.84%
Gross input energy	14,817 MU (8% change) <sup>3</sup>
Total energy sold	13,017 MU (8% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 7,700 Cr (12% change) <sup>3</sup>
Profit after tax	INR -104 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

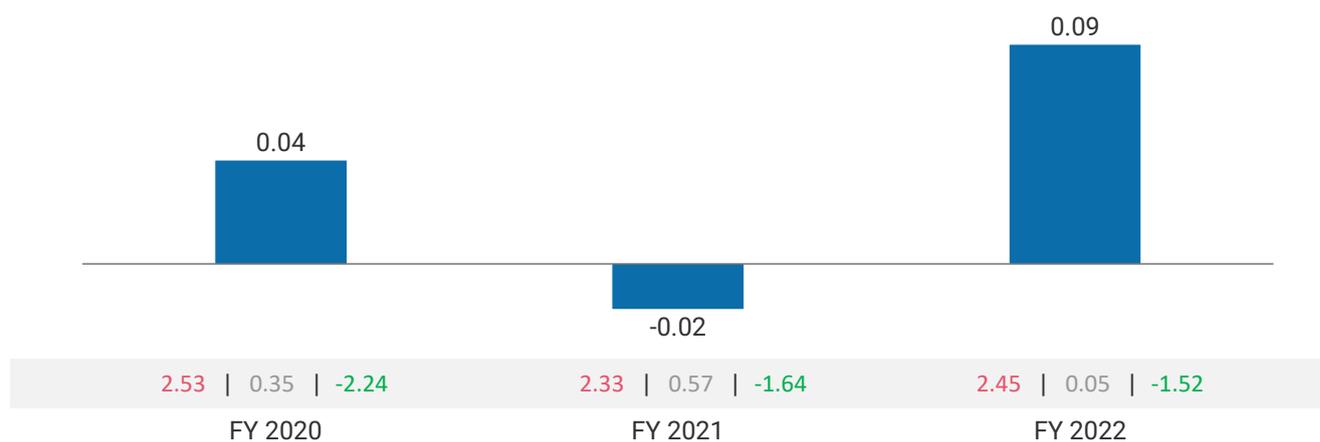
3. Compared to FY 2021.

## Key Insights

- HPSEBL score improved from 49.6 (10<sup>th</sup> Ratings) to 54.1 (11<sup>th</sup> Ratings).
- Major decline in ACR-ARR gap, DSCR metrics in FY22
- Major improvement in Days Payable, Loss takeover by government metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts



## Analysis of ACS-ARR Gap (In INR / kWh)



ACS - ARR Gap across all DISCOMs – **Highest** | Median | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **0.06 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **49% (deteriorating)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked				
			Bottom	33rd	67th	Top	
Cash adjusted revenue	7.66	0.04	5.17	77%	96%	100%	130%
Power purchase cost	4.60	3.11		95%	84%	74%	50%
O&M expenses	2.20	1.48		38%	14%	9%	1%
Interest	0.53	0.35		19%	7%	3%	0%
Other expenses	0.48	0.32					
Gap / Surplus	-0.14	0.09		2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated from (-0.02) in FY21 to 0.09 in FY22
    - PBT (excl. Other Subsidy) remained constant at (-3%) of Revenue booked in both FY21 and FY22
    - Tariff Subsidy received declined from 107% of subsidy booked in FY21 to 92% in FY22. Further, the DISCOM received Other Subsidy of 1% of Revenue booked in FY22.
    - Cash adjustment due to Trade Receivables declined from 3% of Revenue booked in FY21 to 0% in FY22
  - AT&C losses improved from 14.0% in FY21 to 12.9% in FY22 – driven majorly by improvement in Billing Efficiency (from 86% in FY21 to 87.3% in FY22)
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 20%ile performers in Days Receivable – currently at 21 days as against National median of 71 days

#### Performance Excellence

- Collection Efficiency currently at 99.8%

#### External Environment

- Discom implements automatic pass-through of fuel costs
- 

### Key Improvement Areas

#### Financial Sustainability

- Debt levels can be reduced – currently Debt as % of Revenue booked is significantly high at 81%, as compared to National median of 50%

#### Performance Excellence

- Distribution losses may be reduced, current losses are higher than SERC-approved levels

#### Specific Disincentives

- Delay in Audit of Annual Account can be addressed
- Red Card on account of auditor's Adverse Opinion – can be addressed

# Jammu Power Distribution Corporation Limited (JPDCL)



## Overview of JPDCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	3-Jun-2013
Nature of operations	Distribution
Area of operations	10 districts in the UT of J&K – Kathua, Jammu, Samba, Udhampur, Reasi, Rajouri, Poonch, Doda, Ramban, Kishtwar
Number of customers	-
% Agricultural customers	-
% C&I customers	-
Gross input energy	- MU (- change) <sup>3</sup>
Total energy sold	- MU (- change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR - Cr (- change) <sup>3</sup>
Profit after tax	INR - Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

3. Compared to FY 2021.

## Key Insights

- JPDCL score improved marginally from -20.5 (10<sup>th</sup> Ratings) to -20.0 (11<sup>th</sup> Ratings).
- Received Red Card as the Audited Accounts are not available
- In case of JPDCL, the Government manages revenue collection and power purchase. Hence, JPDCL accounts do not capture this information. The revenue captured therein is the Grant in aid from the Government to cover for other expenses. Thus, the accounts does not depict the true financial condition of discom and therefore, zero marks have been awarded for metrics linked to financial accounts.
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Provisional accounts.



# Jharkhand Bijli Vitran Nigam Limited (JBVNL)



## Overview of JBVNL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	23-Oct-2013
Nature of operations	Distribution
Area of operations	State of Jharkhand
Number of customers	4,628,673
% Agricultural customers	1.35%
% C&I customers	5.81%
Gross input energy	14,369 MU (8% change) <sup>3</sup>
Total energy sold	9,491 MU (18% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 6,948 Cr (18% change) <sup>3</sup>
Profit after tax	INR -2,088 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

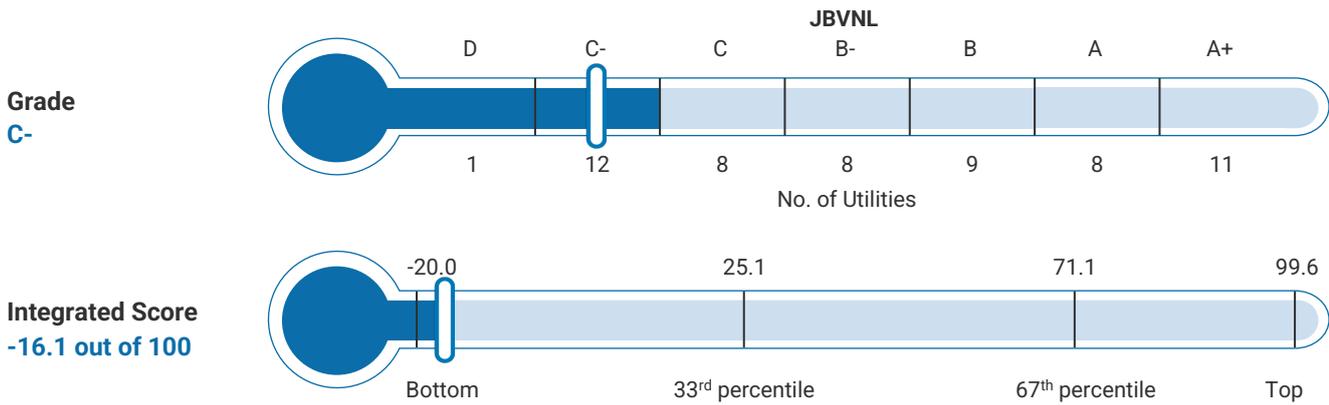
3. Compared to FY 2021.

## Key Insights

- JBVNL score improved from -21.4 (10<sup>th</sup> Ratings) to -16.1 (11<sup>th</sup> Ratings).
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts.

## Performance in 11<sup>th</sup> Annual Rating Exercise

JBVNL achieved Rank 50 (out of 51 utilities), with Grade C- and Integrated Score of -16.1 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

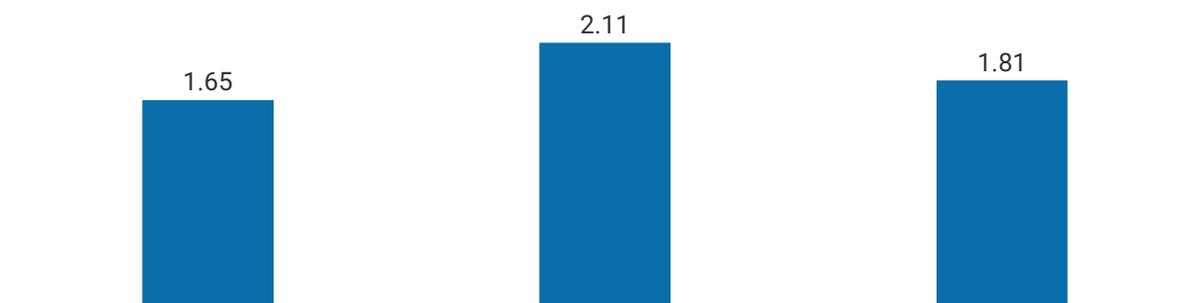


## Summary of Performance across Metrics

Integrated Score: -16.1 out of 100					
Base Rating Score: 4.4					
Financial Sustainability		Performance Excellence		External Environment	
0.0	75	0.5	13	3.9	12
ACS – ARR gap (cash adjusted)	0.0	35	Distribution Loss (SERC approved)	0.0	2
Days Receivable	0.0	3	Billing Efficiency	0.0	5
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	0.5	5
Adjusted Quick Ratio	0.0	10	Corporate Governance	0.0	1
Debt Service Coverage Ratio (cash adjusted)	0.0	10			
Leverage Debt/EBITDA (cash adjusted)	0.0	7			
				Subsidy Realized (last 3 FYs)	3.9
				Loss Takeover by State Government	0.0
				Government Dues (Last 3 FYs)	0.0
				Tariff Cycle Timelines	0.0
				Auto Pass Through of Fuel Costs	0.0
Specific Disincentives: -20.5					
Auditor's Adverse Opinion	-15.0	-15	Audit Qualifications	0.0	-4
Availability of Audited Accounts	-0.5	-15	Governance (Audit Committee, Exclusive MD & DF)	-2.0	-3
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	-3.0	-4.5
				Tariff Independent of Subsidy	0.0
				Uncovered Revenue Gap (Current Year)	0.0
				Regulatory Assets	0.0

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



FY	Highest	Median	Lowest
FY 2020	2.53	0.35	-2.24
FY 2021	2.33	0.57	-1.64
FY 2022	2.45	0.05	-1.52

ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **1.86 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **5% (deteriorating)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	6.44	4.48	77%	96%	100%	130%
Power purchase cost	6.43	4.48	95%	84%	74%	50%
O&M expenses	0.63	0.44	38%	14%	9%	1%
Interest	0.54	0.38	19%	7%	3%	0%
Other expenses	1.43	1.00				
Gap / Surplus	-2.60	1.81	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from 2.11 in FY21 to 1.81 in FY22. FY21 accounts have been recasted.
  - PBT (excl. Other Subsidy) improved from (-37%) of Revenue booked in FY21 to (-30%) in FY22
  - Tariff Subsidy received improved from 74% of subsidy booked in FY21 to 118% in FY22.
  - Cash adjustment due to Trade Receivables declined from (-4%) of Revenue booked in FY21 to (-12%) in FY22
- AT&C losses improved from 43.1% in FY21 to 33.8% in FY22 – driven by both improvement in Billing Efficiency (from 65.3% in FY21 to 72.5% in FY22) and Collection Efficiency (from 87.2% in FY21 to 91.3% in FY22)

### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap can be improved – currently at INR 1.81/ kWh
  - Negative PBT ((-30%) of Revenue booked)
  - Total Subsidy disbursement – 118% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables ((-12%) of Revenue booked)
- Days Payable may be reduced – currently at 537 days as compared to LPS norm of 45 days
- Days Receivable may be reduced – currently at 439 days (for max. score, expected less than or equal to 60 days)
- Liquidity can be improved – Adjusted Quick Ratio currently at 0.29 (for max. score, expected is 1.00)
- Debt Service Coverage Ratio (cash adjusted) may be improved - currently at (-0.30) (for max. score, expected is greater than or equal to 1.1)
- Leverage (Cash Adjusted) may be improved - currently at (-27.01) (for max. score, expected is greater than 0 up to 5)
- Debt levels can be reduced – currently Debt as % of Revenue booked is significantly high at 241%, as compared to National median of 50%

#### Performance Excellence

- Billing Efficiency can be improved – currently at 72.5% (for max. score, expected is 92%+)
- Distribution losses may be reduced – current losses are higher than SERC-approved levels

#### External Environment

- Govt. support required for taking over of Discom losses
- Automatic pass-through of fuel costs can be implemented
- Require regulatory support for issuance of tariff order for FY23 and true-up order for FY21

#### Specific Disincentives

- Tariff and True-up Orders should be issued within the rating timelines
- Red Card on account of auditor's adverse opinion – can be addressed
- Audit Committee can be constituted
- MD and DF can be made exclusive
- Preparation of quarterly accounts can be undertaken by Discom

# Bangalore Electricity Supply Company Limited (BESCOM)



## Overview of BESCOM<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	30-Apr-2002
Nature of operations	Distribution
Area of operations	In the districts of Bangalore Urban, Bangalore Rural, Chikkaballapura, Kolar, Davanagere, Tumkur, Chitradurga and Ramanagara in the State of Karnataka
Number of customers	13,328,295
% Agricultural customers	7.40%
% C&I customers	11.06%
Gross input energy	31,452 MU (5% change) <sup>3</sup>
Total energy sold	26,685 MU (6% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 22,906 Cr (14% change) <sup>3</sup>
Profit after tax	INR -2,920 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

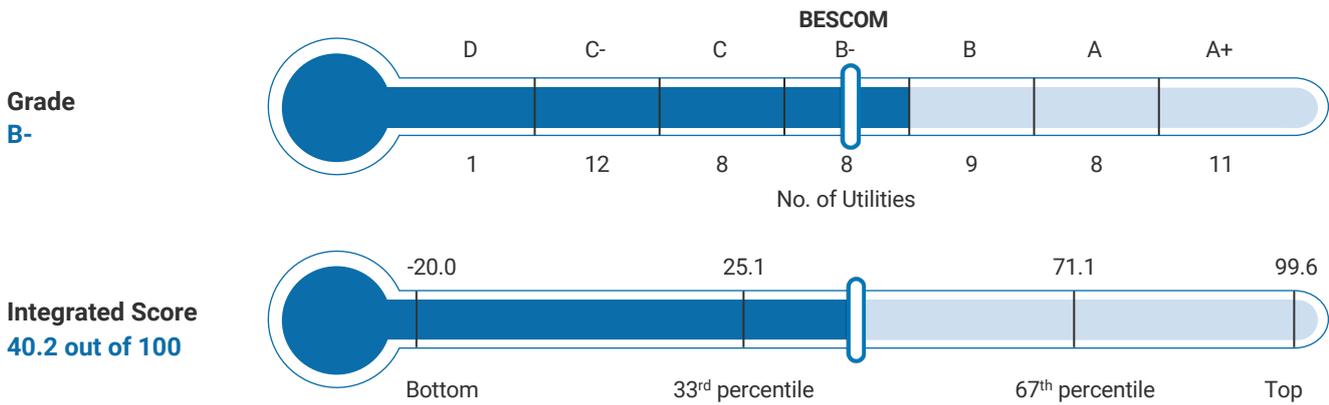
3. Compared to FY 2021.

## Key Insights

- BESCOM score improved significantly from 11.3 (10<sup>th</sup> Ratings) to 40.2 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR Gap, Subsidy Realization metrics in FY22
- Major decline in Loss Takeover by State Government in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

BESCOM achieved Rank 31 (out of 51 utilities), with Grade B- and Integrated Score of 40.2 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

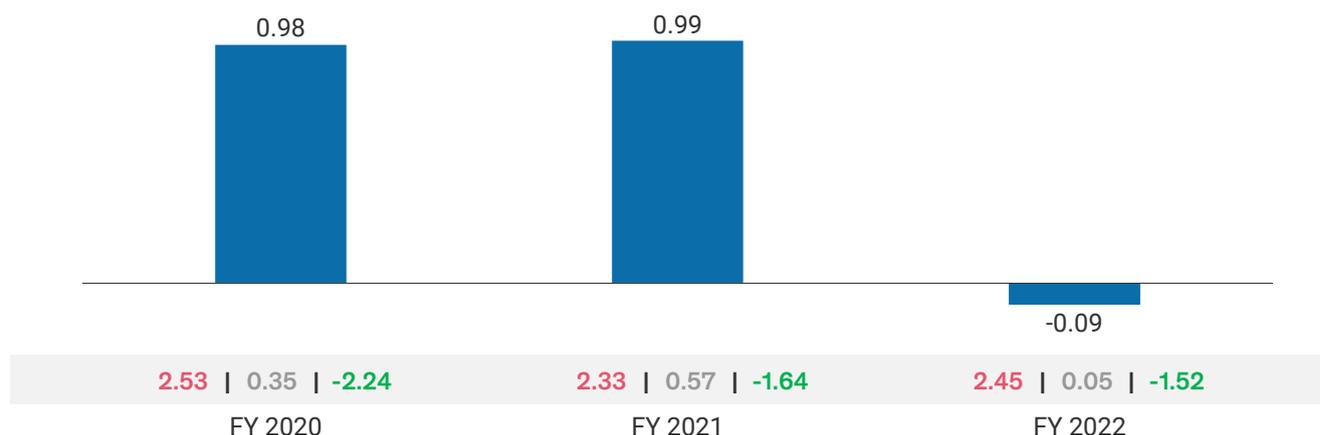


## Summary of Performance across Metrics

Integrated Score: 40.2 out of 100									
Base Rating Score: 42.2									
Financial Sustainability			Performance Excellence			External Environment			
26.5 75			8.7 13			7.0 12			
ACS – ARR gap (cash adjusted)	23.5	35	Distribution Loss (SERC approved)	1.8	2	Subsidy Realized (last 3 FYs)	4.0	4	
Days Receivable	1.9	3	Billing Efficiency	2.6	5	Loss Takeover by State Government	0.1	3	
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	4.3	5	Government Dues (Last 3 FYs)	0.9	3	
Adjusted Quick Ratio	1.1	10	Corporate Governance	0.0	1	Tariff Cycle Timelines	1.0	1	
Debt Service Coverage Ratio (cash adjusted)	0.0	10				Auto Pass Through of Fuel Costs	1.0	1	
Leverage Debt/EBITDA (cash adjusted)	0.0	7							
Specific Disincentives: -2.0									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	-2.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	0.0	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **0.34 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-145% (improving)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	23.48	7.47	77%	96%	103%	130%
Power purchase cost	18.77	5.97	95%	84%	74%	50%
O&M expenses	2.33	0.74	38%	14%	9%	1%
Interest	1.06	0.34	19%	7%	3%	0%
Other expenses	1.04	0.33				
Gap / Surplus	0.28	-0.09	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from 0.99 in FY21 to (-0.09) in FY22
    - PBT (excl. Other Subsidy) improved from (-8%) of Revenue booked in FY21 to (-2%) in FY22
    - Tariff Subsidy received improved significantly from 86% of subsidy booked in FY21 to 151% in FY22
  - AT&C losses improved from 15.9% in FY21 to 11.2% in FY22 – driven majorly by improvement in Collection Efficiency (from 95.2% in FY21 to 100% in FY22)
- 

### Key Strengths

#### Financial Sustainability

- ACS-ARR Gap (cash adjusted) currently at (-0.09)
  - Negative PBT ((-13%) of Revenue booked)
  - High Total Subsidy disbursement – 149% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables ((-4%) of Revenue booked)
- Healthy Debt Service Coverage Ratio, currently at 1.38

#### Performance Excellence

- Collection Efficiency currently at 100%

#### External Environment

- Discom implements automatic pass-through of fuel costs
- 

### Key Improvement Areas

#### Financial Sustainability

- Days Payable may be reduced – currently at 172 days as compared to LPS norm of 45 days

#### External Environment

- Government dues can be lowered – currently ~35% of total amount billed to Government in the past 3 years is due
- Govt. support required for taking over of Discom losses

#### Specific Disincentives

- Ind-AS can be complied and Employee Liabilities can be addressed to remove Audit qualification

# Chamundeshwari Electricity Supply Corporation Limited (CHESCOM)



## Overview of CHESCOM<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	6-Dec-2004
Nature of operations	Distribution
Area of operations	In the districts of Mysore, Chamarajanagar, Mandya, Hassan, Kodagu in the State of Karnataka
Number of customers	3,583,588
% Agricultural customers	12.78%
% C&I customers	9.39%
Gross input energy	8,391 MU (11% change) <sup>3</sup>
Total energy sold	6,684 MU (6% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 5,167 Cr (13% change) <sup>3</sup>
Profit after tax	INR -423 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

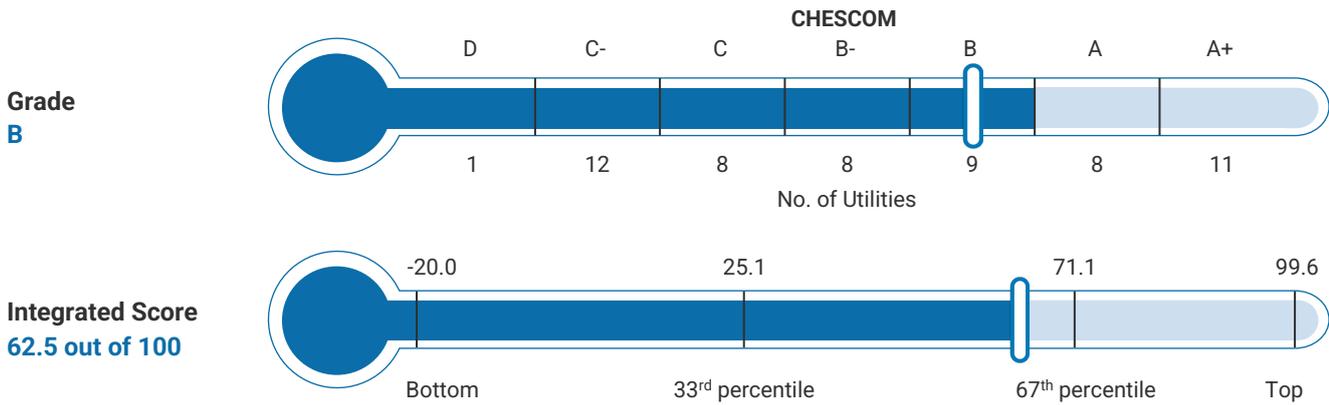
3. Compared to FY 2021.

## Key Insights

- CHESCOM score improved significantly from 5.6 (10<sup>th</sup> Ratings) to 62.5 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR gap, DSCR, Subsidy Realization metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

CHESCOM achieved Rank 18 (out of 51 utilities), with Grade B and Integrated Score of 62.5 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

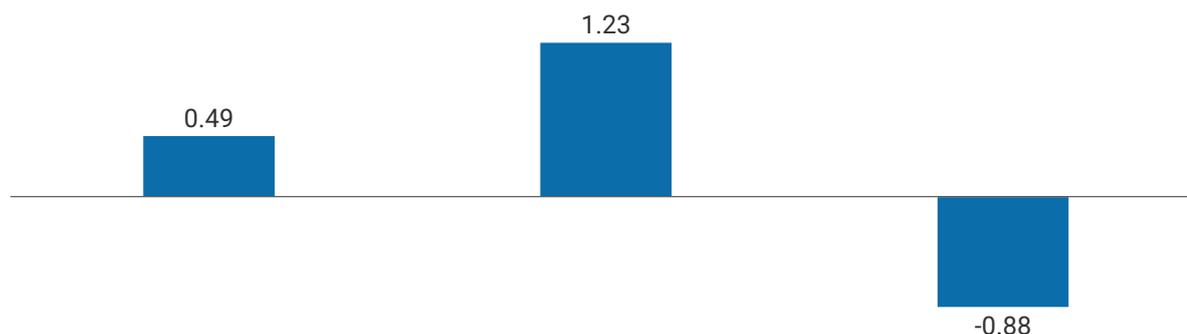


## Summary of Performance across Metrics

Integrated Score: 62.5 out of 100					
Base Rating Score: 63.5					
Financial Sustainability		Performance Excellence		External Environment	
ACS – ARR gap (cash adjusted)	35.0	35	Distribution Loss (SERC approved)	1.5	2
Days Receivable	0.0	3	Billing Efficiency	2.5	5
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	3.4	5
Adjusted Quick Ratio	2.0	10	Corporate Governance	0.0	1
Debt Service Coverage Ratio (cash adjusted)	9.9	10	Subsidy Realized (last 3 FYs)	4.0	4
Leverage Debt/EBITDA (cash adjusted)	1.1	7	Loss Takeover by State Government	0.0	3
			Government Dues (Last 3 FYs)	2.0	3
			Tariff Cycle Timelines	1.0	1
			Auto Pass Through of Fuel Costs	1.0	1
Specific Disincentives: -1.0					
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	-1.0	-4
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	0.0	-4.5
			Tariff Independent of Subsidy	0.0	-1
			Uncovered Revenue Gap (Current Year)	0.0	-4
			Regulatory Assets	0.0	-5

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



FY 2020	FY 2021	FY 2022
2.53   0.35   -2.24	2.33   0.57   -1.64	2.45   0.05   -1.52

ACS - ARR Gap across all DISCOMs – **Highest** | Median | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **-0.15 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-195% (improving)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	6.29	7.50	77%	96%	100%	130%
Power purchase cost	4.03	4.80	95%	84%	74%	50%
O&M expenses	0.91	1.08	38%	14%	9%	1%
Interest	0.26	0.31	19%	7%	3%	0%
Other expenses	0.36	0.43				
Gap / Surplus	0.74	-0.88	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved significantly from 1.23 in FY21 to (-0.88) in FY22
  - PBT (excl. Other Subsidy) improved from (-12%) of Revenue booked in FY21 to (-7%) in FY22
  - Tariff Subsidy received improved significantly from 85% of subsidy booked in FY21 to 163% in FY22.
  - Cash adjustment due to Trade Receivables improved from (-3%) of Revenue booked in FY21 to (-1%) in FY22
- AT&C losses improved significantly from 20.3% in FY21 to 11.3% in FY22 – driven majorly by improvement in Collection Efficiency (from 91.4% in FY21 to 100% in FY22)

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### Key Strengths

#### Financial Sustainability

- Amongst the top 10%ile performers in ACS-ARR Gap (cash adjusted)
  - Negative PBT ((-8%) of Revenue booked)
  - High Total Subsidy disbursement – 163% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables
- Healthy Cash adjusted Leverage, currently at 2.69
- Healthy Debt Service Coverage Ratio, currently at 2.20

#### Performance Excellence

- Collection Efficiency currently at 100%

#### External Environment

- Discom implements automatic pass-through of fuel costs

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### Key Improvement Areas

#### Financial Sustainability

- Days Payable may be reduced – currently at 185 days as compared to LPS norm of 45 days
- Days Receivables may be reduced – currently at 177 days (for max. score, expected less than or equal to 60 days)

#### External Environment

- Govt. Support required for taking over of Discom losses

#### Specific Disincentives

- Ind-AS can be complied to remove Audit Qualification

# Gulbarga Electricity Supply Company Limited (GESCOM)



## Overview of GESCOM<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	30-Apr-2002
Nature of operations	Distribution
Area of operations	Districts of Kalaburagi, Bidar, Yadgir, Raichur, Koppal, Bellari and Vijayanagar in the State of Karnataka
Number of customers	3,456,904
% Agricultural customers	12.19%
% C&I customers	11.21%
Gross input energy	8,756 MU (0% change) <sup>3</sup>
Total energy sold	7,827 MU (8% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 6,636 Cr (23% change) <sup>3</sup>
Profit after tax	INR 11 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

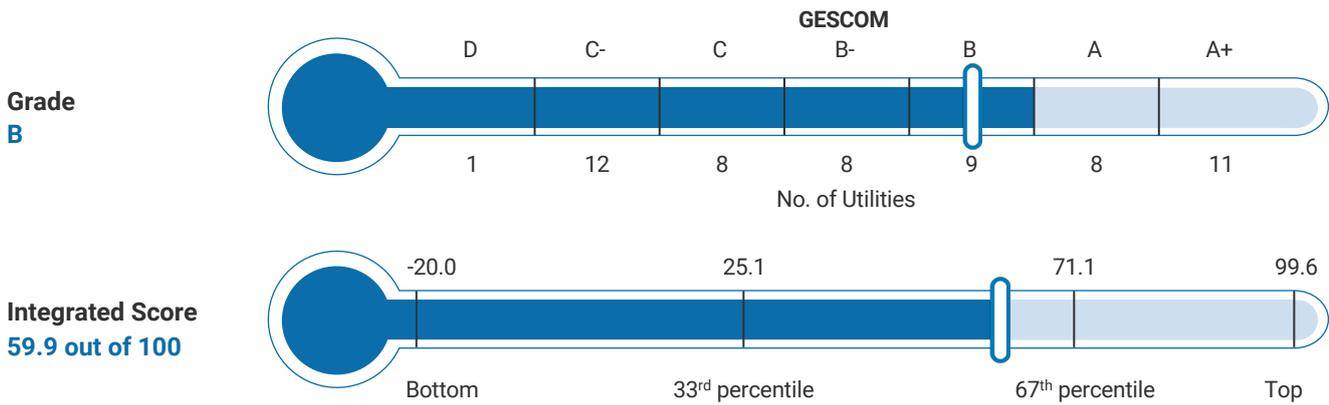
3. Compared to FY 2021.

## Key Insights

- GESCOM score improved significantly from 8.6 (10<sup>th</sup> Ratings) to 59.9 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR Gap, DSCR, Collection Efficiency metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

GESCOM achieved Rank 21 (out of 51 utilities), with Grade B and Integrated Score of 59.9 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

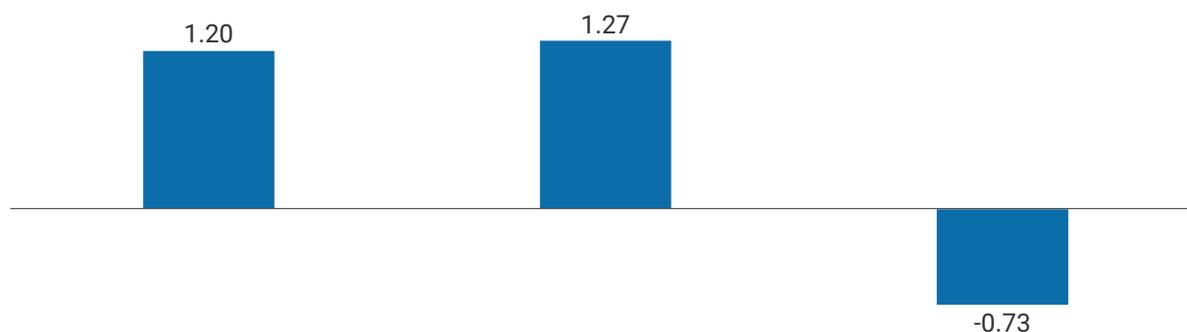


## Summary of Performance across Metrics

Integrated Score: 59.9 out of 100									
Base Rating Score: 61.9									
Financial Sustainability			Performance Excellence			External Environment			
ACS – ARR gap (cash adjusted)	31.8	35	Distribution Loss (SERC approved)	2.0	2	Subsidy Realized (last 3 FYs)	4.0	4	
Days Receivable	0.0	3	Billing Efficiency	2.8	5	Loss Takeover by State Government	0.5	3	
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	3.7	5	Government Dues (Last 3 FYs)	1.0	3	
Adjusted Quick Ratio	4.1	10	Corporate Governance	0.0	1	Tariff Cycle Timelines	1.0	1	
Debt Service Coverage Ratio (cash adjusted)	10.0	10				Auto Pass Through of Fuel Costs	1.0	1	
Leverage Debt/EBITDA (cash adjusted)	0.0	7							
Specific Disincentives: -2.0									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	-1.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	-1.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	0.0	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



2.53 | 0.35 | -2.24      2.33 | 0.57 | -1.64      2.45 | 0.05 | -1.52

FY 2020      FY 2021      FY 2022

ACS - ARR Gap across all DISCOMs – Highest | Median | Lowest

ACS-ARR Gap – Weighted Average for 11th Ratings: **0.06 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-162% (improving)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Percentile			
			Bottom	33rd	67th	Top
Cash adjusted revenue	7.16	8.18	77%	96%	100% 108%	130%
Power purchase cost	4.86	5.55	95%	84%	74% 73%	50%
O&M expenses	0.91	1.04	38%	14% 14%	9%	1%
Interest	0.42	0.48	19%	7% 6%	3%	0%
Other expenses	0.32	0.37				
Gap / Surplus	0.64	-0.73	2.45	0.36	-0.12 -0.73	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved significantly from 1.27 in FY21 to (-0.73) in FY22
  - PBT (excl. Other Subsidy) improved from (-13%) of Revenue booked in FY21 to 2% in FY22
  - Tariff Subsidy received improved from 92% of subsidy booked in FY21 to 131% in FY22.
  - Cash adjustment due to Trade Receivables has improved from (-6%) of Revenue booked in FY21 to (-3%) in FY22
- AT&C losses improved from 20% in FY21 to 10.5% in FY22 – driven majorly by improvement in Collection Efficiency (from 90.6% in FY21 to 100% in FY22)

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### Key Strengths

#### Financial Sustainability

- Amongst the top 10%ile performers in ACS-ARR Gap (cash adjusted)
  - Negative PBT ((-1%) of Revenue booked)
  - High Total Subsidy disbursement – 131% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables ((-3%) of Revenue booked)
- Healthy Cash adjusted Leverage, currently at 2.35
- Healthy Debt Service Coverage Ratio, currently at 2.42

#### Performance Excellence

- Collection Efficiency currently at 100%
- Achieved SERC - approved Distribution loss target

#### External Environment

- Discom implements automatic pass-through of fuel costs

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### Key Improvement Areas

#### Financial Sustainability

- Days Payable may be reduced – currently at 166 days as compared to LPS norm of 45 days
- Days Receivables may be reduced – currently at 167 days (for max. score, expected less than or equal to 60 days)

#### External Environment

- Government dues can be lowered – currently ~33% of total amount billed to Government in the past 3 years is due
- Government support required for taking over of Discom losses

#### Specific Disincentives

- Ind-AS can be complied to remove Audit qualification
- Preparation of quarterly accounts can be undertaken by Discom

# Hubli Electricity Supply Company Limited (HESCOM)



## Overview of HESCOM<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	30-Apr-2002
Nature of operations	Distribution
Area of operations	In the districts of Dharwad, Haveri, Uttara Kannada, Gadag, Belagavi, Bagalkot, Vijayapur in the State of Karnataka
Number of customers	5,663,978
% Agricultural customers	17.60%
% C&I customers	10.10%
Gross input energy	14,599 MU (12% change) <sup>3</sup>
Total energy sold	12,427 MU (13% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 9,107 Cr (12% change) <sup>3</sup>
Profit after tax	INR -1,294 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

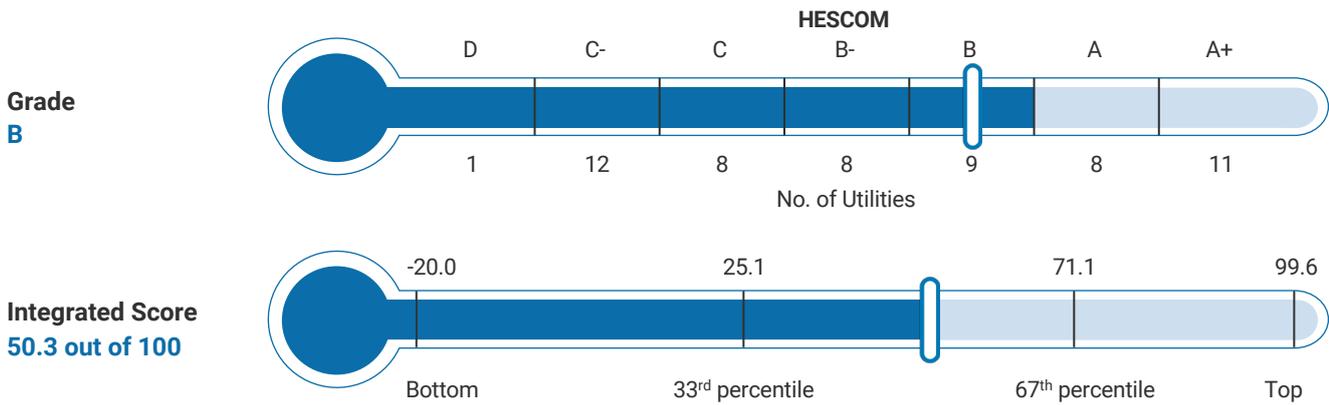
3. Compared to FY 2021.

## Key Insights

- HESCOM score improved significantly from 17.6 (10<sup>th</sup> Ratings) to 50.3 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR Gap, metric in FY22
- Major decline in Adjusted Quick Ratio metric in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

HESCOM achieved Rank 24 (out of 51 utilities), with Grade B and Integrated Score of 50.3 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score



## Summary of Performance across Metrics

Integrated Score: 50.3 out of 100									
Base Rating Score: 53.3									
Financial Sustainability			Performance Excellence			External Environment			
ACS – ARR gap (cash adjusted)	33.4	35	Distribution Loss (SERC approved)	2.0	2	Subsidy Realized (last 3 FYs)	4.0	4	
Days Receivable	0.0	3	Billing Efficiency	1.8	5	Loss Takeover by State Government	0.0	3	
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	5.0	5	Government Dues (Last 3 FYs)	2.9	3	
Adjusted Quick Ratio	0.4	10	Corporate Governance	0.0	1	Tariff Cycle Timelines	1.0	1	
Debt Service Coverage Ratio (cash adjusted)	1.9	10				Auto Pass Through of Fuel Costs	1.0	1	
Leverage Debt/EBITDA (cash adjusted)	0.0	7							
Specific Disincentives: -3.0									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	-3.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	0.0	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric



## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved significantly from 1.11 in FY21 to (-0.44) in FY22
    - PBT (excl. Other Subsidy) declined from (-17%) of Revenue booked in FY21 to (-23%) in FY22
    - Tariff Subsidy received improved from 101% of subsidy booked in FY21 to 159% in FY22.
  - AT&C losses improved from 14.2% in FY21 to 13.5% in FY22
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 20%ile performers in ACS-ARR Gap (cash adjusted)
  - Negative PBT ((-17%) of Revenue booked)
  - High Total Subsidy disbursement – 159% of Subsidy booked
- Healthy Cash adjusted Leverage, currently at 3.82

#### Performance Excellence

- Collection Efficiency currently at 100%
- Achieved SERC approved Distribution loss target

#### External Environment

- Discom implements automatic pass-through of fuel costs
- 

### Key Improvement Areas

#### Financial Sustainability

- Days Payable may be reduced – currently at 244 days as compared to LPS norm of 45 days
- Days Receivables may be reduced – currently at 165 days (for max. score, expected less than or equal to 60 days)
- Debt levels can be reduced – currently Debt as % of Revenue booked is significantly high at 80%, as compared to National median of 50%
- Adjusted Quick Ratio can be improved, currently at 0.28 (for max. score, expected is 1.00)

#### External Environment

- Govt. Support required for taking over of Discom losses

#### Specific Disincentives

- Ind-AS can be adopted and Going Concern can be addressed to remove audit qualification

# Mangalore Electricity Supply Company Limited (MESCOM)



## Overview of MESCOM<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	29-Apr-2002
Nature of operations	Distribution
Area of operations	Districts of Dakshina Kannada, Udupi, Shivamogga and Chikkamagalur in the State of Karnataka
Number of customers	2,564,242
% Agricultural customers	14.97%
% C&I customers	10.65%
Gross input energy	5,941 MU (1% change) <sup>3</sup>
Total energy sold	5,169 MU (2% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 4,078 Cr (7% change) <sup>3</sup>
Profit after tax	INR 33 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

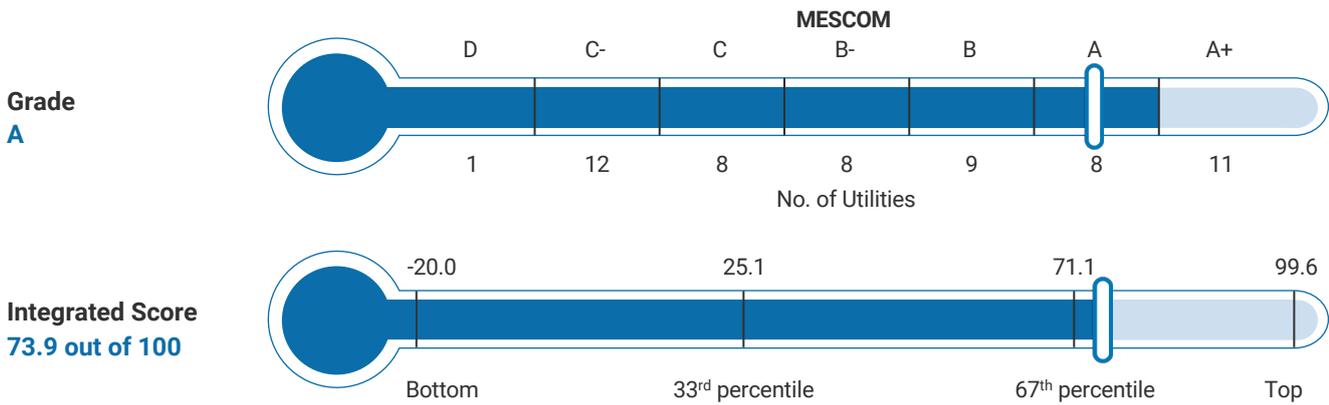
3. Compared to FY 2021.

## Key Insights

- MESCOM score improved significantly from 34.5 (10<sup>th</sup> Ratings) to 73.9 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR gap, DSCR, Loss Takeover by State Government metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

MESCOM achieved Rank 15 (out of 51 utilities), with Grade A and Integrated Score of 73.9 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score



## Summary of Performance across Metrics

Integrated Score: 73.9 out of 100									
Base Rating Score: 76.9									
Financial Sustainability			Performance Excellence			External Environment			
ACS – ARR gap (cash adjusted)	35.0	35	Distribution Loss (SERC approved)	2.0	2	Subsidy Realized (last 3 FYs)	4.0	4	
Days Receivable	2.5	3	Billing Efficiency	3.4	5	Loss Takeover by State Government	3.0	3	
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	4.5	5	Government Dues (Last 3 FYs)	2.0	3	
Adjusted Quick Ratio	8.4	10	Corporate Governance	0.0	1	Tariff Cycle Timelines	1.0	1	
Debt Service Coverage Ratio (cash adjusted)	10.0	10				Auto Pass Through of Fuel Costs	1.0	1	
Leverage Debt/EBITDA (cash adjusted)	0.0	7							
Specific Disincentives: -3.0									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	-2.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	-1.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	0.0	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric



## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved significantly from 0.68 in FY21 to (-1.52) in FY22
    - PBT (excl. Other Subsidy) improved from (-9%) of Revenue booked in FY21 to 9% in FY22
    - Tariff Subsidy received improved from 89% of subsidy booked in FY21 to 166% in FY22.
    - Cash adjustment due to Trade Receivables has declined from 1% of Revenue booked in FY21 to (-2%) in FY22.
  - AT&C losses improved from 12.3% in FY21 to 9% in FY22 – driven majorly by improvement in Collection Efficiency (from 97.3% in FY21 to 100% in FY22)
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 10%ile performers in ACS-ARR Gap
  - Positive PBT (1% of Revenue booked)
  - High Total Subsidy disbursement – 166% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables ((-2%) of Revenue Booked)
- Healthy Debt Service Coverage Ratio, currently at 3.92
- Healthy Cash adjusted Leverage, currently at 1.34

#### Performance Excellence

- Collection Efficiency currently at 100%
- Achieved SERC approved Distribution loss target

#### External Environment

- Discom implements automatic pass-through of fuel costs
- 

### Key Improvement Areas

#### Financial Sustainability

- Days Payable may be reduced – currently at 128 days as compared to LPS norm of 45 days

#### Specific Disincentives

- Ind-AS can be complied and Employee Liability can be addressed to remove audit qualification
- Managing Director should be exclusive

# Kashmir Power Distribution Corporation Limited (KPDCL)



## Overview of KPDCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	26-Mar-2013
Nature of operations	Distribution
Area of operations	10 districts in the UT of J&K which include Srinagar, Ganderbal, Baramulla, Anantnag, Budgam, Pulwama, Shopian, Kupwara, Kulgam & Bandipora
Number of customers	-
% Agricultural customers	-
% C&I customers	-
Gross input energy	- MU (- change) <sup>3</sup>
Total energy sold	- MU (- change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR - Cr (- change) <sup>3</sup>
Profit after tax	INR - Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

3. Compared to FY 2021.

## Key Insights

- KPDCL score improved from -21.5 (10<sup>th</sup> Ratings) to -19.0 (11<sup>th</sup> Ratings).
- Received Red Card as the Audited Accounts are not available
- In case of KPDCL, the Government manages revenue collection and power purchase. Hence, KPDCL accounts do not capture this information. The revenue captured therein is the Grant in aid from the Government to cover for other expenses. Thus, the accounts does not depict the true financial condition of discom and therefore, zero marks have been awarded for metrics linked to financial accounts.
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Provisional accounts.



# Kerala State Electricity Board Limited (KSEBL)



## Overview of KSEBL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	14-Jan-2011
Nature of operations	Generation, Transmission and Distribution
Area of operations	State of Kerala
Number of customers	13,422,642
% Agricultural customers	3.80%
% C&I customers	19.43%
Gross input energy	29,267 MU (13% change) <sup>3</sup>
Total energy sold	25,923 MU (14% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 16,986 Cr (12% change) <sup>3</sup>
Profit after tax	INR 736 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

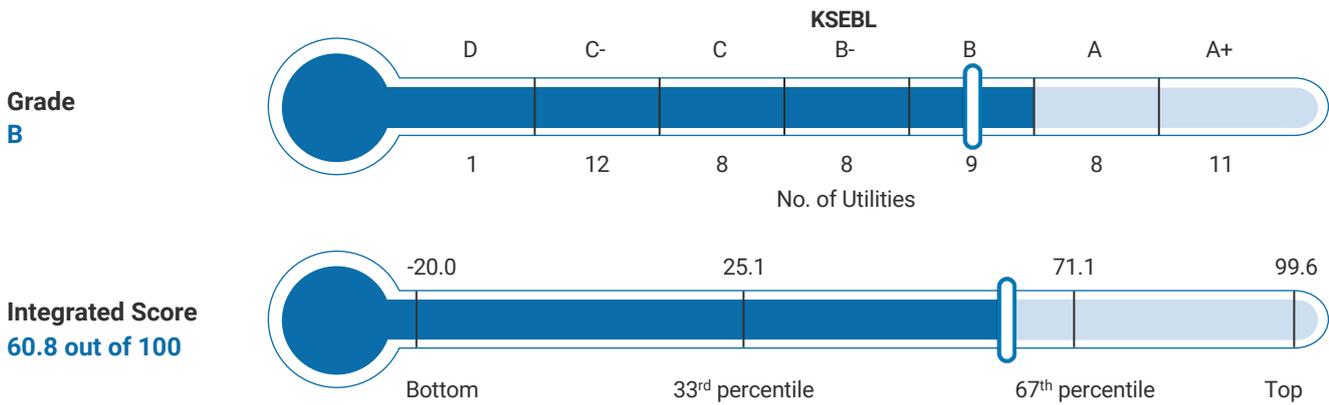
3. Compared to FY 2021.

## Key Insights

- KSEBL score improved significantly from 28.5 (10<sup>th</sup> Ratings) to 60.8 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR gap, DSCR, Leverage, Loss Takeover by State Government metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

KSEBL achieved Rank 20 (out of 51 utilities), with Grade B and Integrated Score of 60.8 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score



## Summary of Performance across Metrics

Integrated Score: 60.8 out of 100									
Base Rating Score: 68.2									
Financial Sustainability			Performance Excellence			External Environment			
ACS – ARR gap (cash adjusted)	35.0	35	Distribution Loss (SERC approved)	2.0	2	Subsidy Realized (last 3 FYs)	4.0	4	
Days Receivable	3.0	3	Billing Efficiency	5.0	5	Loss Takeover by State Government	3.0	3	
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	4.9	5	Government Dues (Last 3 FYs)	1.5	3	
Adjusted Quick Ratio	0.0	10	Corporate Governance	0.0	1	Tariff Cycle Timelines	0.0	1	
Debt Service Coverage Ratio (cash adjusted)	4.0	10				Auto Pass Through of Fuel Costs	0.0	1	
Leverage Debt/EBITDA (cash adjusted)	5.9	7							
Specific Disincentives: -7.4									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	-3.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	-1.5	-4.5	Regulatory Assets	-2.9	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric



## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from 0.03 in FY21 to (-0.29) in FY22. Major recasting in FY 21 accounts.
  - PBT (excl. Other Subsidy) improved from (-3%) of Revenue booked in FY21 to 4% in FY22
  - Tariff Subsidy received remained constant at 100% in FY21 and FY22
  - Cash adjustment due to Trade Receivables declined from 3% of Revenue booked in FY21 to 1% in FY22
- AT&C losses improved from 7.8% in FY21 to 7.7% in FY22

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### Key Strengths

#### Financial Sustainability

- Amongst the top 25<sup>th</sup>ile performers in ACS-ARR Gap (cash adjusted)
  - Positive PBT (4% of Revenue booked)
  - High Total Subsidy disbursement – 100% of Subsidy booked
  - Positive cash adjustment due to Trade Receivables
- Days Receivable currently at 53 days as against National median of 71 days
- Healthy Cash adjusted Leverage, currently at 4.92

#### Performance Excellence

- Collection Efficiency currently at 100%
- Amongst the top 20<sup>th</sup>ile performers in Billing Efficiency currently at 92.3%
- Achieved SERC - approved Distribution loss target

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### Key Improvement Areas

#### Financial Sustainability

- Days Payable may be reduced – currently at 78 days as compared to LPS norm of 45 days
- Liquidity can be improved – Adjusted Quick Ratio currently at 0.28 (for max. score, expected is 1.00)
- Debt levels can be reduced – currently Debt as % of Revenue booked is significantly high at 110%, as compared to National median of 50%

#### External Environment

- Government dues can be lowered – currently ~25% of total amount billed to Government in the past 3 years is due.
- Automatic pass-through of fuel costs is implemented with a significant time lag

#### Specific Disincentives

- Ind-AS can be complied and Going Concern can be addressed to remove audit qualification
- Tariff and True-up Orders, Tariff Petition should be issued within the rating timelines
- Pace of Regulatory Assets liquidation needs to be improved – 12% liquidated since FY21 (for max. score, pace of liquidation should be 28%+)

# Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited (MPMKVVCL)



## Overview of MPMKVCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	31-May-2002
Nature of operations	Distribution
Area of operations	Commissionaires of Bhopal, Hoshangabad, Gwalior, and Chambal
Number of customers	4,913,893
% Agricultural customers	18.31%
% C&I customers	7.68%
Gross input energy	28,659 MU (1% change) <sup>3</sup>
Total energy sold	20,885 MU (9% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 15,897 Cr (10% change) <sup>3</sup>
Profit after tax	INR -258 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

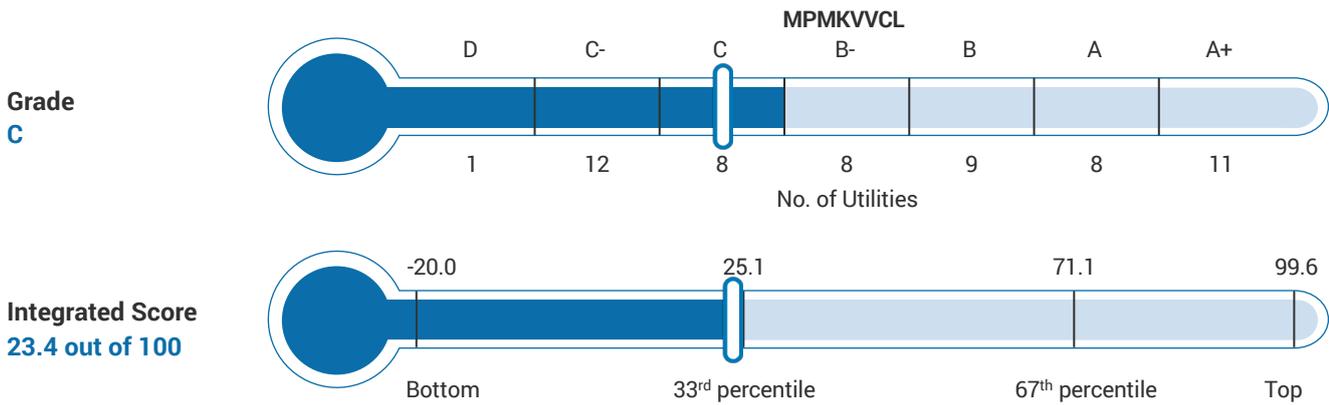
3. Compared to FY 2021.

## Key Insights

- MPMKVCL score improved significantly from -6.3 (10<sup>th</sup> Ratings) to 23.4 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR Gap, Leverage, Uncovered Revenue Gap metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

MPMKVVCL achieved Rank 37 (out of 51 utilities), with Grade C and Integrated Score of 23.4 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

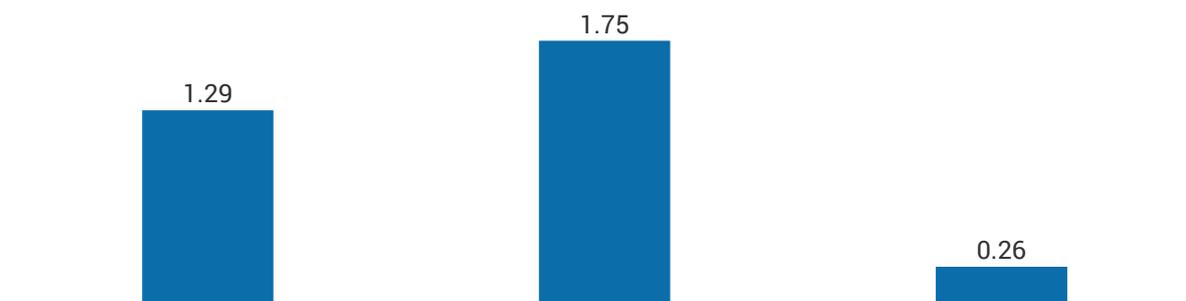


## Summary of Performance across Metrics

Integrated Score: 23.4 out of 100					
Base Rating Score: 27.4					
Financial Sustainability		Performance Excellence		External Environment	
	17.3	75		1.0	13
ACS – ARR gap (cash adjusted)	10.3	35	Distribution Loss (SERC approved)	0.0	2
Days Receivable	0.0	3	Billing Efficiency	0.0	5
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	1.0	5
Adjusted Quick Ratio	0.0	10	Corporate Governance	0.0	1
Debt Service Coverage Ratio (cash adjusted)	0.0	10	Subsidy Realized (last 3 FYs)	1.3	4
Leverage Debt/EBITDA (cash adjusted)	7.0	7	Loss Takeover by State Government	3.0	3
			Government Dues (Last 3 FYs)	2.8	3
			Tariff Cycle Timelines	1.0	1
			Auto Pass Through of Fuel Costs	1.0	1
Specific Disincentives: -4.0					
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	-4.0	-4
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	0.0	-4.5
			Tariff Independent of Subsidy	0.0	-1
			Uncovered Revenue Gap (Current Year)	0.0	-4
			Regulatory Assets	0.0	-5

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



2.53 | 0.35 | -2.24      2.33 | 0.57 | -1.64      2.45 | 0.05 | -1.52

FY 2020      FY 2021      FY 2022

ACS - ARR Gap across all DISCOMs – Highest | Median | Lowest

ACS-ARR Gap – Weighted Average for 11th Ratings: **0.79 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-55% (improving)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Percentile			
			Bottom	33rd	67th	Top
Cash adjusted revenue	15.42	5.38	77%	96%	100%	130%
Power purchase cost	11.79	4.11	95%	84%	74%	50%
O&M expenses	1.34	0.47	38%	14%	9%	1%
Interest	1.22	0.43	19%	7%	3%	0%
Other expenses	1.81	0.63				
Gap / Surplus	-0.74	0.26	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved significantly from 1.75 in FY21 to 0.26 in FY22
  - PBT (excl. Other Subsidy) improved from (-12%) of Revenue booked in FY21 to (-7%) in FY22
  - Tariff Subsidy received improved from 69% of subsidy booked in FY21 to 104% in FY22. Further, the DISCOM received Other Subsidy of ~5% of Revenue booked in FY22.
  - Cash adjustment due to Trade Receivables has improved from (-10%) of Revenue booked in FY21 to (-5%) in FY22
- AT&C losses improved from 49% in FY21 to 26.4% in FY22 – driven both by improvement in Collection Efficiency (from 71.5% in FY21 to 95.8% in FY22) and Billing Efficiency (from 71.3% in FY21 to 76.9% in FY22)

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### Key Strengths

#### External Environment

- Discom implements automatic pass-through of fuel costs

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### Key Improvement Areas

#### Financial Sustainability

- Days Payable may be reduced – currently at 374 days as compared to LPS norm of 45 days
- Days Receivable may be reduced – currently at 228 days (for max. score, expected less than or equal to 60 days)
- Adjusted Quick Ratio currently at 0.33 (for max. score, expected is 1.00)
- Debt Service Coverage Ratio can be improved - currently at 0.28 (for max. score, expected is 1.1)
- Debt as % of Revenue booked is significantly high at ~121%, as compared to National median of ~50%

#### Performance Excellence

- Billing Efficiency can be improved – currently at 76.9% (for max. score, expected is 92%+)
- Distribution losses may be reduced – current losses are higher than SERC-approved levels

#### Specific Disincentives

- Ind-AS can be complied, Employee Liability and Going concern can be addressed to remove audit qualification

# Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Limited (MPPaKVVCL)



Rank  
27 out of 51

Grade

## Overview of MPPaKVVCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	31-May-2002
Nature of operations	Distribution
Area of operations	Commissionaires of Indore and Ujjain
Number of customers	5,794,529
% Agricultural customers	23.56%
% C&I customers	8.49%
Gross input energy	29,189 MU (6% change) <sup>3</sup>
Total energy sold	24,559 MU (7% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 17,352 Cr (6% change) <sup>3</sup>
Profit after tax	INR -2,244 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

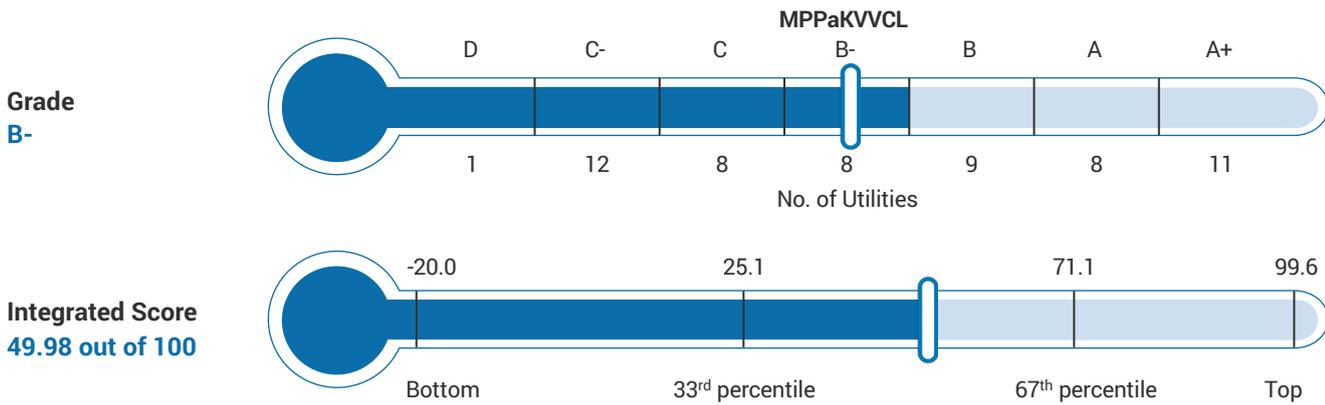
3. Compared to FY 2021.

## Key Insights

- MPPaKVVCL score improved significantly from 31.5 (10<sup>th</sup> Ratings) to 49.98 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR gap, Collection Efficiency, Subsidy realization, Tariff Cycle delay metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

MPPaKVCL achieved Rank 27 (out of 51 utilities), with Grade B- and Integrated Score of 49.98 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

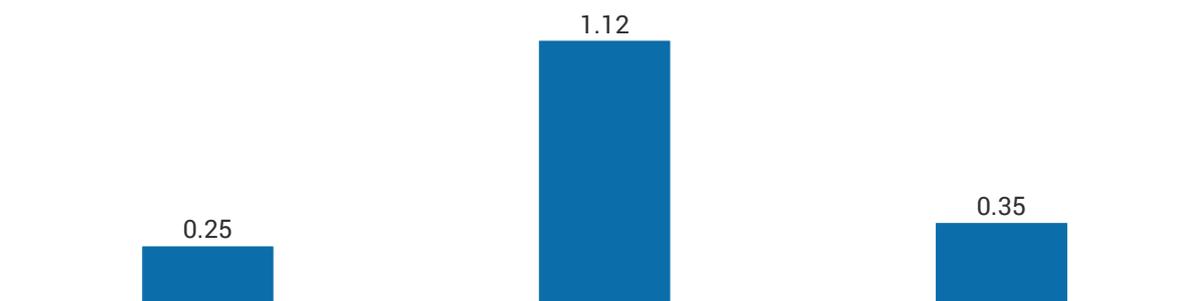


## Summary of Performance across Metrics

Integrated Score: 49.98 out of 100									
Base Rating Score: 49.98									
Financial Sustainability			Performance Excellence			External Environment			
ACS – ARR gap (cash adjusted)	14.5	35	Distribution Loss (SERC approved)	2.0	2	Subsidy Realized (last 3 FYs)	1.3	4	
Days Receivable	1.6	3	Billing Efficiency	2.5	5	Loss Takeover by State Government	0.1	3	
Days Payable to GenCos & TransCos	10.0	10	Collection Efficiency	2.1	5	Government Dues (Last 3 FYs)	3.0	3	
Adjusted Quick Ratio	10.0	10	Corporate Governance	1.0	1	Tariff Cycle Timelines	1.0	1	
Debt Service Coverage Ratio (cash adjusted)	0.0	10				Auto Pass Through of Fuel Costs	1.0	1	
Leverage Debt/EBITDA (cash adjusted)	0.0	7							
Specific Disincentives: 0.0									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	0.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	0.0	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



Fiscal Year	Highest	Median	Lowest
FY 2020	2.53	0.35	-2.24
FY 2021	2.33	0.57	-1.64
FY 2022	2.45	0.05	-1.52

ACS - ARR Gap across all DISCOMs – Highest | Median | Lowest

ACS-ARR Gap – Weighted Average for 11th Ratings: **0.53 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **18% (deteriorating)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	18.58	6.36	77%	96%	100% 107%	130%
Power purchase cost	16.10	5.51	95%	84%	74%	50%
O&M expenses	1.66	0.57	38%	14%	9%	1%
Interest	0.89	0.31	19%	7%	3%	0%
Other expenses	0.95	0.32				
Gap / Surplus	-1.02	0.35	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from 1.12 in FY21 to 0.35 in FY22
  - PBT (excl. Other Subsidy) declined from 0% of Revenue booked in FY21 to (-13%) in FY22
  - Tariff Subsidy received improved from 73% of subsidy booked in FY21 to 105% in FY22
  - Cash adjustment due to Trade Receivables has improved from (-6%) of Revenue booked in FY21 to 5% in FY22
- AT&C losses improved significantly from 30.3% in FY21 to 11.6% in FY22 – driven majorly by improvement in Collection Efficiency (from 79.9% in FY21 to 100% in FY22)

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### Key Strengths

#### Financial Sustainability

- Amongst the top 20%ile performers in Days Payable – currently at 32 days as compared to LPS norm of ~45 days
- Healthy Adjusted Quick Ratio , currently at 1.25

#### Performance Excellence

- Collection Efficiency currently at 100%
- Achieved SERC approved Distribution loss target

#### External Environment

- Discom implements automatic pass-through of fuel costs

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### Key Improvement Areas

#### Financial Sustainability

- Debt Service Coverage Ratio can be improved - currently at 0.14 (for max. score, expected is 1.1)
- Leverage can be improved which is currently at 18.71 (for max. score, expected greater than 0 up to 5)
- Debt levels can be reduced – currently Debt as % of Revenue booked is significantly high at ~88%, as compared to National median of ~50%

#### External Environment

- Govt. support required for taking over of Discom losses

# Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited (MPPoKVVCL)



## Overview of MPPoKVVCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	31-May-2002
Nature of operations	Distribution
Area of operations	Commissionaires of Jabalpur, Sagar and Rewa
Number of customers	6,409,598
% Agricultural customers	17.71%
% C&I customers	7.25%
Gross input energy	25,252 MU (3% change) <sup>3</sup>
Total energy sold	17,613 MU (6% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 13,640 Cr (13% change) <sup>3</sup>
Profit after tax	INR -618 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

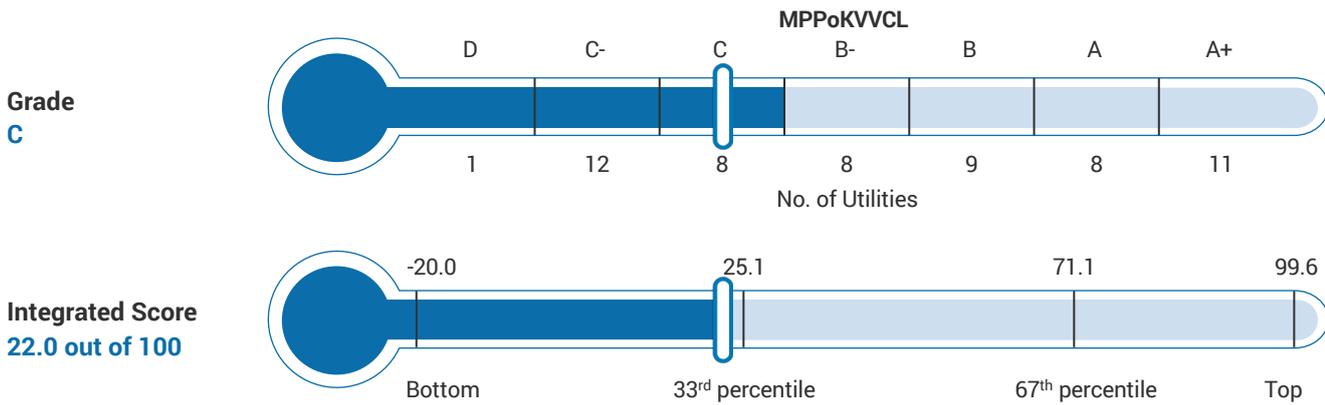
3. Compared to FY 2021.

## Key Insights

- MPPoKVVCL score improved from -3.1 (10<sup>th</sup> Ratings) to 22.0 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR gap, Leverage, Uncovered Revenue Gap metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

MPPoKVVCL achieved Rank 38 (out of 51 utilities), with Grade C and Integrated Score of 22.0 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

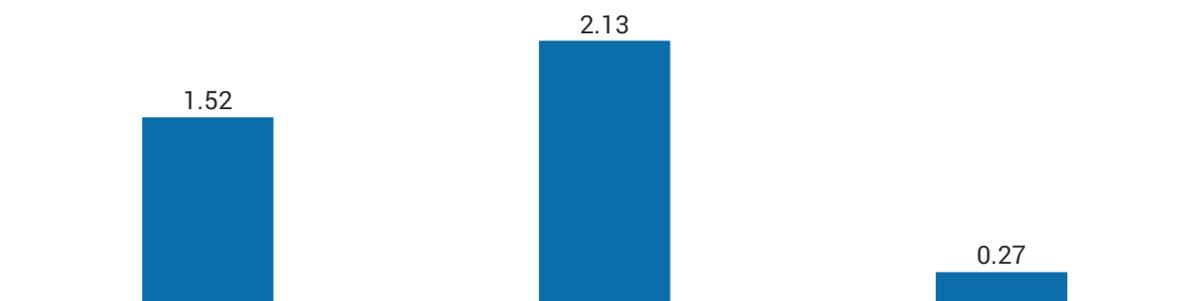


## Summary of Performance across Metrics

Integrated Score: 22.0 out of 100					
Base Rating Score: 24.5					
Financial Sustainability		Performance Excellence		External Environment	
ACS – ARR gap (cash adjusted)	7.0	35	Distribution Loss (SERC approved)	0.0	2
Days Receivable	0.0	3	Billing Efficiency	0.0	5
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	1.0	5
Adjusted Quick Ratio	0.0	10	Corporate Governance	0.8	1
Debt Service Coverage Ratio (cash adjusted)	0.0	10	Subsidy Realized (last 3 FYs)	0.8	4
Leverage Debt/EBITDA (cash adjusted)	7.0	7	Loss Takeover by State Government	3.0	3
			Government Dues (Last 3 FYs)	3.0	3
			Tariff Cycle Timelines	1.0	1
			Auto Pass Through of Fuel Costs	1.0	1
Specific Disincentives: -2.5					
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	-2.0	-4
Availability of Audited Accounts	-0.5	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	0.0	-4.5
			Tariff Independent of Subsidy	0.0	-1
			Uncovered Revenue Gap (Current Year)	0.0	-4
			Regulatory Assets	0.0	-5

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



Fiscal Year	Highest	Median	Lowest
FY 2020	2.53	0.35	-2.24
FY 2021	2.33	0.57	-1.64
FY 2022	2.45	0.05	-1.52

ACS - ARR Gap across all DISCOMs – Highest | Median | Lowest

ACS-ARR Gap – Weighted Average for 11th Ratings: **0.92 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-58% (improving)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	13.58	0.06	77%	96%	100%	130%
Power purchase cost	10.67	4.23	95%	84%	74%	50%
O&M expenses	1.35	0.54	38%	14%	9%	1%
Interest	1.06	0.42	19%	7%	3%	0%
Other expenses	1.17	0.46				
Gap / Surplus	-0.68	0.27	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved significantly from 2.13 in FY21 to 0.27 in FY22
  - PBT (excl. Other Subsidy) improved from (-26%) of Revenue booked in FY21 to (-15%) in FY22
  - Tariff Subsidy received improved from 70% of subsidy booked in FY21 to 105% in FY22. Further, the DISCOM received Other Subsidy of ~10% of Revenue booked in FY22.
  - Cash adjustment due to Trade Receivables improved from (-7%) of Revenue booked in FY21 to (-3%) in FY22
- AT&C losses improved from 45.4% in FY21 to 31.0% in FY22 – driven majorly by improvement in Collection Efficiency (from 77.1% in FY21 to 94.9% in FY22)

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### Key Strengths

#### External Environment

- Discom implements automatic pass-through of fuel costs

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### Key Improvement Areas

#### Financial Sustainability

- Days Payable may be reduced – currently at 321 days as compared to LPS norm of 45 days
- Days Receivables may be reduced – currently at 218 days (for max. score, expected less than or equal to 60 days)
- Debt levels can be reduced – currently Debt as 131% of Revenue booked is significantly high, as compared to National median of 50%
- Liquidity can be improved – Adjusted Quick Ratio currently at 0.33 (for max. score, expected is 1.00)
- Debt Service Coverage ratio (cash adjusted) can be improved, currently at 0.21 (for max. score, expected greater than or equal to 1.1)

#### Performance Excellence

- Billing Efficiency can be improved – currently at 72.7% (for max. score, expected is 92%+)
- Distribution losses may be reduced – current losses are higher than SERC-approved levels

#### Specific Disincentives

- Delay in Audit of Annual Account can be addressed
- Ind-AS can be complied and Employee Liability may be addressed to remove audit qualification

# Maharashtra State Electricity Distribution Company Limited (MSEDCL)



Rank  
30 out of 51



Grade

## Overview of MSEDCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	31-May-2005
Nature of operations	Distribution
Area of operations	State of Maharashtra except for some parts of Mumbai city
Number of customers	28,873,382
% Agricultural customers	15.48%
% C&I customers	8.22%
Gross input energy	144,235 MU (9% change) <sup>3</sup>
Total energy sold	116,663 MU (11% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 90,842 Cr (15% change) <sup>3</sup>
Profit after tax	INR 280 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

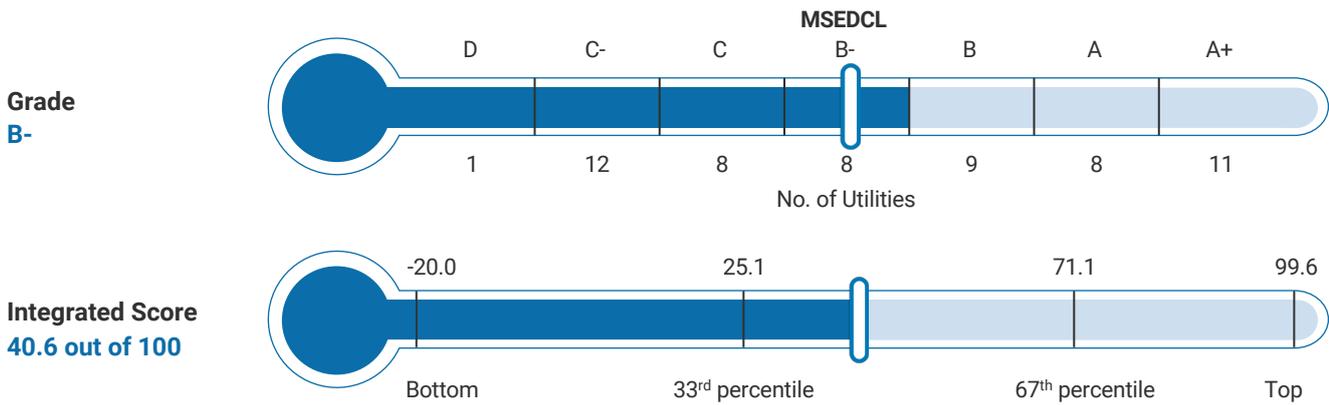
3. Compared to FY 2021.

## Key Insights

- MSEDCL score improved significantly from 6.9 (10<sup>th</sup> Ratings) to 40.6 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR Gap, Leverage, Loss Takeover by State Government metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

MSEDCL achieved Rank 30 (out of 51 utilities), with Grade B- and Integrated Score of 40.6 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score



## Summary of Performance across Metrics

Integrated Score: 40.6 out of 100									
Base Rating Score: 44.6									
Financial Sustainability			Performance Excellence			External Environment			
27.0 75			7.0 13			10.7 12			
ACS – ARR gap (cash adjusted)	19.1	35	Distribution Loss (SERC approved)	2.0	2	Subsidy Realized (last 3 FYs)	4.0	4	
Days Receivable	0.0	3	Billing Efficiency	1.2	5	Loss Takeover by State Government	3.0	3	
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	3.0	5	Government Dues (Last 3 FYs)	1.7	3	
Adjusted Quick Ratio	0.9	10	Corporate Governance	0.8	1	Tariff Cycle Timelines	1.0	1	
Debt Service Coverage Ratio (cash adjusted)	0.0	10				Auto Pass Through of Fuel Costs	1.0	1	
Leverage Debt/EBITDA (cash adjusted)	7.0	7							
Specific Disincentives: -4.0									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	-3.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	-1.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	0.0	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric



## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved significantly from 1.19 in FY21 to 0.08 in FY22
  - PBT (excl. Other Subsidy) improved from (-7%) of Revenue booked in FY21 to (-1%) in FY22
  - Tariff Subsidy received improved from 86% of subsidy booked in FY21 to 127% in FY22.
  - Cash adjustment due to Trade Receivables has improved from (-11%) of Revenue booked in FY21 to (-3%) in FY22
- AT&C losses improved from 27.2% in FY21 to 15.5% in FY22 – driven majorly by improvement in Collection Efficiency (from 86.3% in FY21 to 99.7% in FY22)

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### Key Strengths

#### Financial Sustainability

- Healthy Cash adjusted Leverage, currently at 4.03

#### Performance Excellence

- Collection Efficiency currently at 99.73%
- Achieved SERC approved Distribution loss target

#### External Environment

- Discom implements automatic pass-through of fuel costs

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### Key Improvement Areas

#### Financial Sustainability

- Days Payable may be reduced – currently at 177 days as compared to LPS norm of 45 days
- Days Receivable may be reduced – currently at 202 days (for max. score, expected less than or equal to 60 days)

#### External Environment

- Government dues can be lowered – currently 22% of total amount billed to Government in the past 3 years is due

#### Specific Disincentives

- Ind-AS can be complied and Going Concern can be addressed to remove audit qualification
- Director Finance should be exclusive

# Manipur State Power Distribution Company Limited (MSPDCL)



Rank  
36 out of 51



Grade

## Overview of MSPDCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	15-Jul-2013
Nature of operations	Distribution
Area of operations	State of Manipur
Number of customers	506,202
% Agricultural customers	Negligible
% C&I customers	6.48%
Gross input energy	1,057 MU (-3% change) <sup>3</sup>
Total energy sold	778 MU (-10% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 911 Cr (26% change) <sup>3</sup>
Profit after tax	INR -11 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

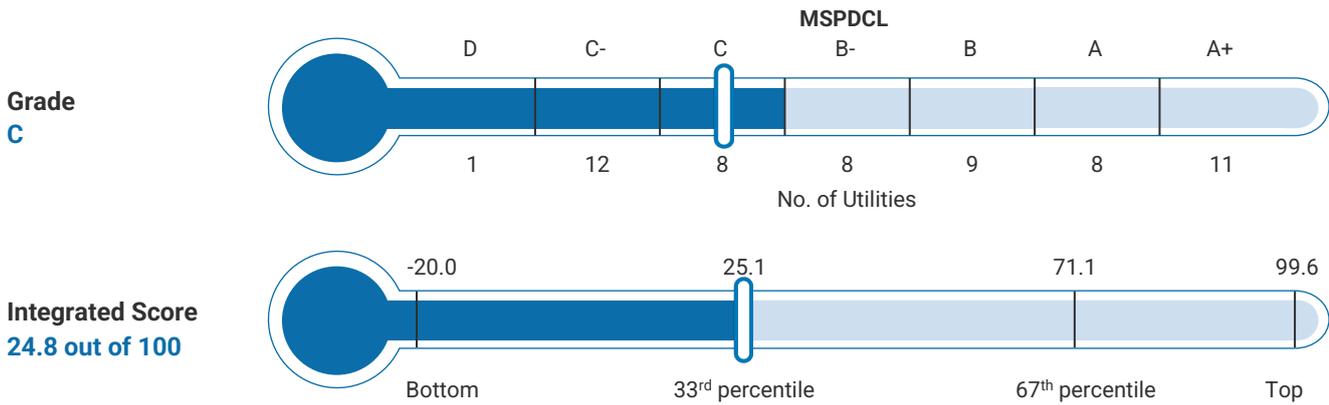
3. Compared to FY 2021.

## Key Insights

- MSPDCL score improved from 18.2 (10<sup>th</sup> Ratings) to 24.8 (11<sup>th</sup> Ratings).
- Major improvement in DSCR, Adjusted Quick Ratio metrics in FY22
- Major decline in ACS-ARR Gap metric in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

MSPDCL achieved Rank 36 (out of 51 utilities), with Grade C and Integrated Score of 24.8 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

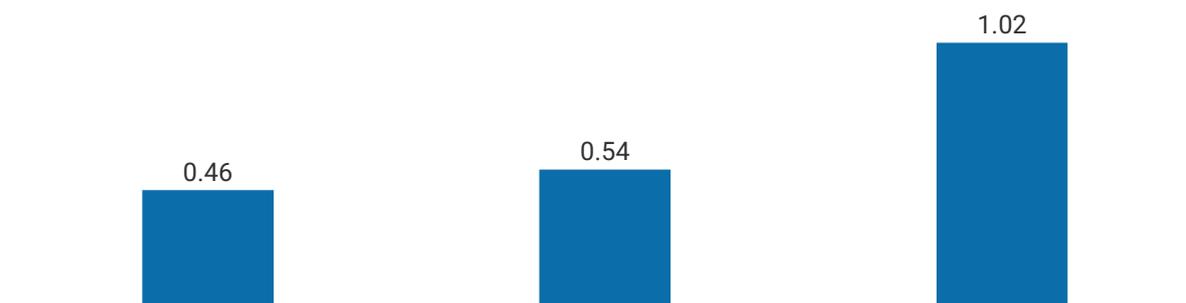


## Summary of Performance across Metrics

Integrated Score: 24.8 out of 100					
Base Rating Score: 28.0					
Financial Sustainability		Performance Excellence		External Environment	
<b>19.5</b>	75	<b>3.6</b>	13	<b>5.0</b>	12
ACS – ARR gap (cash adjusted)	2.5	35	Distribution Loss (SERC approved)	2.0	2
Days Receivable	0.0	3	Billing Efficiency	0.7	5
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	0.1	5
Adjusted Quick Ratio	7.0	10	Corporate Governance	0.8	1
Debt Service Coverage Ratio (cash adjusted)	10.0	10	Subsidy Realized (last 3 FYs)	4.0	4
Leverage Debt/EBITDA (cash adjusted)	0.0	7	Loss Takeover by State Government	0.0	3
			Government Dues (Last 3 FYs)	0.0	3
			Tariff Cycle Timelines	1.0	1
			Auto Pass Through of Fuel Costs	0.0	1
Specific Disincentives: -3.3					
<b>0.0</b>	-15	<b>-2.0</b>	-4	<b>0.0</b>	-1
Auditor's Adverse Opinion		Audit Qualifications		Tariff Independent of Subsidy	
<b>0.0</b>	-15	<b>-1.0</b>	-3	<b>0.0</b>	-4
Availability of Audited Accounts		Governance (Audit Committee, Exclusive MD & DF)		Uncovered Revenue Gap (Current Year)	
<b>0.0</b>	-15	<b>-0.3</b>	-4.5	<b>0.0</b>	-5
Default to Banks/FIs		Tariff Cycle Delays		Regulatory Assets	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



FY	Highest	Median	Lowest
FY 2020	2.53	0.35	-2.24
FY 2021	2.33	0.57	-1.64
FY 2022	2.45	0.05	-1.52

ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **0.82 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **50% (deteriorating)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	0.84	7.91	77%	92%	100%	130%
Power purchase cost	0.68	6.44	95%	84%	74%	50%
O&M expenses	0.09	0.81	38%	14%	9%	1%
Interest	0.01	0.10	19%	7%	3%	0%
Other expenses	0.17	1.58				
Gap / Surplus	-0.11	1.02	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated from 0.54 in FY21 to 1.02 in FY22
  - PBT (excl. Other Subsidy) declined from (-1%) of Revenue booked in FY21 to (-4%) in FY22
  - Tariff Subsidy received remained constant at 100% of subsidy booked in FY21 and FY22.
  - Cash adjustment due to Trade Receivables declined from (-7%) of Revenue booked in FY21 to (-8%) in FY22
- AT&C losses deteriorated from 20.3% in FY21 to 25.0% in FY22 – driven by decline in Billing Efficiency (from 86.1% in FY21 to 83.6% in FY22) and Collection Efficiency (from 92.6% in FY21 to 89.7% in FY22)

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### Key Strengths

#### Financial Sustainability

- Healthy Debt Service Coverage Ratio, currently at 5.70

#### Performance Excellence

- Achieved SERC – approved Distribution loss target

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### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap may be reduced – currently at INR 1.02/ kWh
  - Negative PBT ((-4%) of Revenue booked)
  - Total Subsidy disbursement – 100% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables ((-8%) of Revenue booked)
- Days Payable may be reduced – currently at 100 days as compared to LPS norm of 45 days
- Days Receivables may be reduced – currently at 425 days (for max. score, expected less than or equal to 60 days)

#### Performance Excellence

- Collection Efficiency can be improved – currently at 89.7% (for max. score, expected is 99.5%+)

#### External Environment

- Govt. support required for taking over of Discom losses
- Automatic pass-through of fuel costs can be implemented

#### Specific Disincentives

- Ind-AS can be adopted and Employee Liability may be addressed to remove audit qualification
- Tariff Petition should be filed within the rating timelines
- Audit Committee can be constituted

# Meghalaya Power Distribution Corporation Limited (MePDCL)



## Overview of MePDCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	14-Sep-2009
Nature of operations	Distribution
Area of operations	State of Meghalaya
Number of customers	166,075
% Agricultural customers	0.01%
% C&I customers	3.14%
Gross input energy	3,057 MU (22% change) <sup>3</sup>
Total energy sold	2,290 MU (22% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 1,197 Cr (1% change) <sup>3</sup>
Profit after tax	INR -153 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

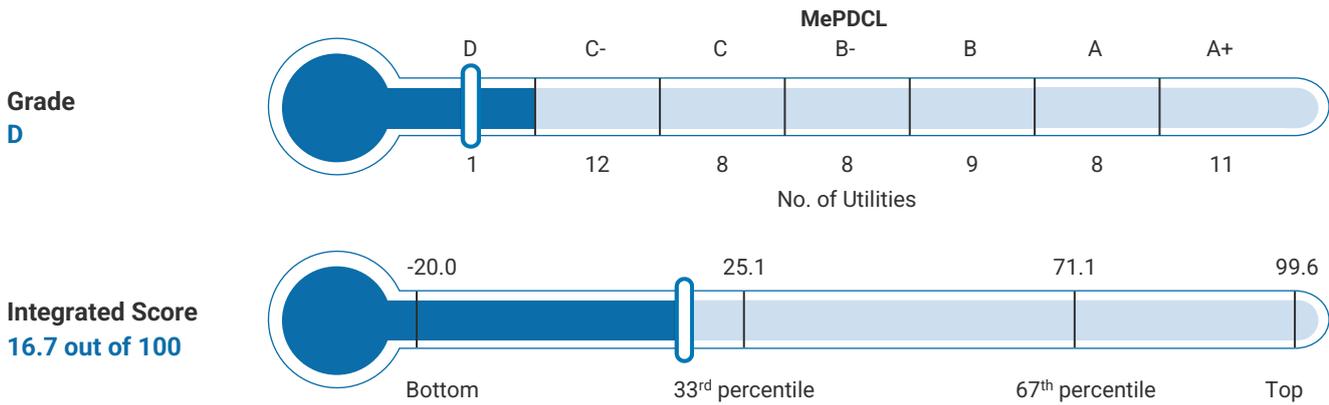
3. Compared to FY 2021.

## Key Insights

- MePDCL score improved from -1.3 (10<sup>th</sup> Ratings) to 16.7 (11<sup>th</sup> Ratings). Grade over-ride due to SMA-2 loan default
- Major improvement in ACR-ARR gap, Leverage, Loss Takeover by State Government metrics in FY22
- Major decline in Collection Efficiency metric in FY22
- Audited Accounts for FY22 have not been provided

## Performance in 11<sup>th</sup> Annual Rating Exercise

MePDCL achieved Rank 51 (out of 51 utilities), with Grade D and Integrated Score of 16.7 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

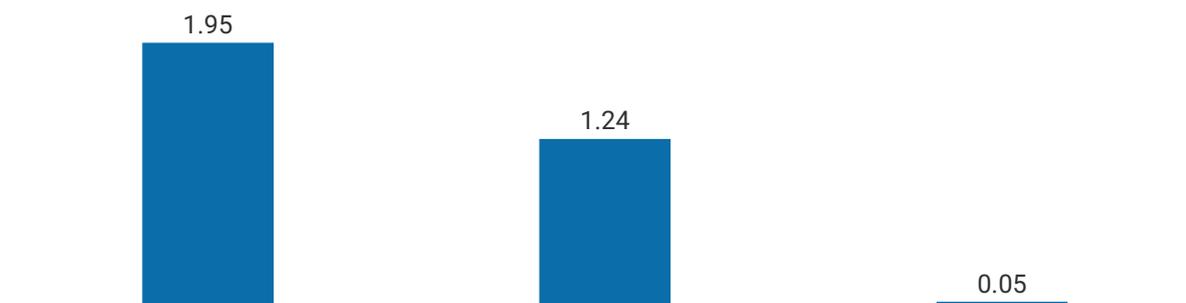


## Summary of Performance across Metrics

Integrated Score: 16.7 out of 100							
Base Rating Score: 32.2							
Financial Sustainability		Performance Excellence		External Environment			
<b>21.9</b>	75	<b>2.9</b>	13	<b>7.4</b>	12		
ACS – ARR gap (cash adjusted)	14.9 35	Distribution Loss (SERC approved)	0.0 2	Subsidy Realized (last 3 FYs)	3.9 4		
Days Receivable	0.0 3	Billing Efficiency	0.0 5	Loss Takeover by State Government	3.0 3		
Days Payable to GenCos & TransCos	0.0 10	Collection Efficiency	1.9 5	Government Dues (Last 3 FYs)	0.0 3		
Adjusted Quick Ratio	0.0 10	Corporate Governance	1.0 1	Tariff Cycle Timelines	0.5 1		
Debt Service Coverage Ratio (cash adjusted)	0.0 10			Auto Pass Through of Fuel Costs	0.0 1		
Leverage Debt/EBITDA (cash adjusted)	7.0 7						
Specific Disincentives: -15.5							
<b>0.0</b>	-15	Audit Qualifications	<b>0.0</b>	-4	Tariff Independent of Subsidy	<b>0.0</b>	-1
<b>-7.0</b>	-15	Governance (Audit Committee, Exclusive MD & DF)	<b>-3.0</b>	-3	Uncovered Revenue Gap (Current Year)	<b>0.0</b>	-4
<b>-4.0</b>	-15	Tariff Cycle Delays	<b>-1.5</b>	-4.5	Regulatory Assets	<b>0.0</b>	-5

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



FY 2020	FY 2021	FY 2022
2.53   0.35   -2.24	2.33   0.57   -1.64	2.45   0.05   -1.52

ACS - ARR Gap across all DISCOMs – **Highest** | Median | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **0.63 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-85% (improving)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	1.34	4.37	77%	96%	100%	130%
Power purchase cost	0.93	3.03	95%	84%	74%	50%
O&M expenses	0.23	0.77	38%	14%	9%	1%
Interest	0.14	0.47	19%	7%	3%	0%
Other expenses	0.05	0.15				
Gap / Surplus	-0.01	0.05	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from 1.24 in FY21 to 0.05 in FY22. FY21 accounts have been recasted.
  - PBT (excl. Other Subsidy) improved from (-25%) of Revenue booked in FY21 to (-13%) in FY22
  - Tariff Subsidy received declined from 100% of subsidy booked in FY21 to 99% in FY22. Further, the DISCOM received Other Subsidy of ~16% of Revenue booked in FY22.
  - Cash adjustment due to Trade Receivables declined from (-1%) of Revenue booked in FY21 to (-5%) in FY22
- AT&C losses deteriorated from 30.9% in FY21 to 36.1% in FY22 – driven majorly by reduction in Collection Efficiency (from 100.0% in FY21 to 92.4% in FY22)

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### Key Improvement Areas

#### Financial Sustainability

- Days Payable may be reduced – currently at 284 days as compared to LPS norm of ~45 days
- Days Receivables may be reduced – currently at 233 days (for max. score, expected less than or equal to 60 days)
- Liquidity can be improved – Adjusted Quick Ratio currently at 0.35 (for max. score, expected is 1.00)
- Debt levels can be reduced – currently Debt as % of Revenue booked is significantly high at 151%, as compared to National median of 50%

#### Performance Excellence

- Billing Efficiency can be improved – currently at 69.1% (for max. score, expected is 92%+)
- Distribution losses may be reduced – current losses are higher than SERC-approved levels

#### External Environment

- Automatic pass-through of fuel costs can be implemented
- Require regulatory support for issuance of true-up order for FY21

#### Specific Disincentives

- Red Card on account of providing only provisional accounts – can be addressed
- Red Card on account to Defaults to bank/FIs (SMA-2 Default to PFC & REC) – can be addressed
- True-up Orders should be issued within the rating timelines
- Operational Audit Committee can be constituted
- Managing Director and Director Finance should be exclusive
- Preparation of quarterly accounts can be undertaken by Discom

# Punjab State Power Corporation Limited (PSPCL)



## Overview of PSPCL<sup>1</sup>

Ownership	State Government Company
Date of incorporation	16-Apr-2010
Nature of operations	Generation & Distribution
Area of operations	State of Punjab
Number of customers	10,168,441
% Agricultural customers	13.66%
% C&I customers	12.94%
Gross input energy	62,154 MU (7% change) <sup>3</sup>
Total energy sold	53,166 MU (7% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 36,115 Cr (5% change) <sup>3</sup>
Profit after tax	INR 1,069 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

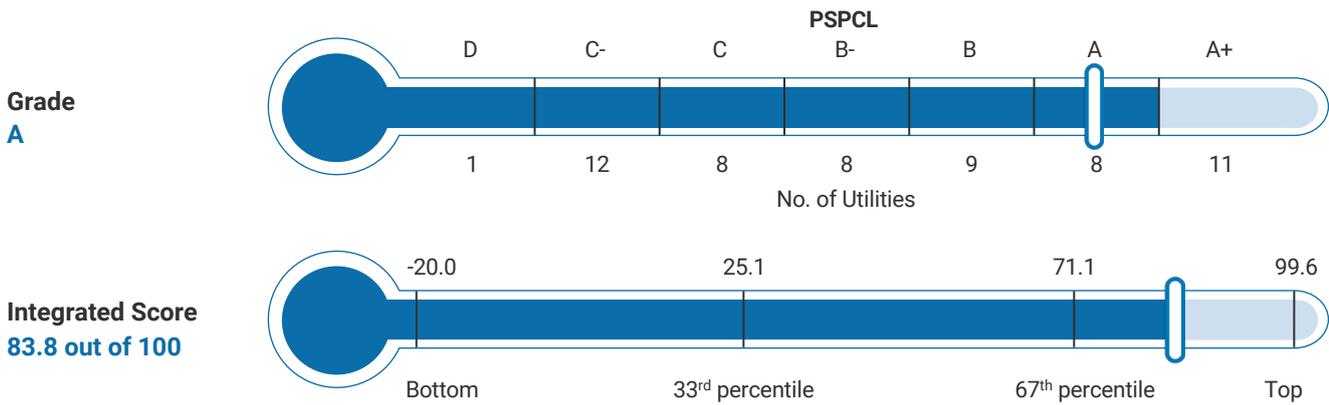
3. Compared to FY 2021.

## Key Insights

- PSPCL score improved significantly from 62.3 (10<sup>th</sup> Ratings) to 83.8 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR Gap, DSCR metrics, Days Payable and Collection Efficiency in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

PSPCL achieved Rank 11 (out of 51 utilities), with Grade A and Integrated Score of 83.8 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score



## Summary of Performance across Metrics

Integrated Score: 83.8 out of 100									
Base Rating Score: 86.8									
Financial Sustainability			Performance Excellence			External Environment			
66.4	75		9.3	13		11.1	12		
ACS – ARR gap (cash adjusted)	34.6	35	Distribution Loss (SERC approved)	2.0	2	Subsidy Realized (last 3 FYs)	3.6	4	
Days Receivable	1.7	3	Billing Efficiency	2.5	5	Loss Takeover by State Government	3.0	3	
Days Payable to GenCos & TransCos	8.0	10	Collection Efficiency	4.0	5	Government Dues (Last 3 FYs)	2.5	3	
Adjusted Quick Ratio	9.7	10	Corporate Governance	0.8	1	Tariff Cycle Timelines	1.0	1	
Debt Service Coverage Ratio (cash adjusted)	5.4	10				Auto Pass Through of Fuel Costs	1.0	1	
Leverage Debt/EBITDA (cash adjusted)	7.0	7							
Specific Disincentives: -3.0									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	-2.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	-1.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	0.0	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric



## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from 0.08 in FY21 to (-0.18) in FY22
    - PBT (excl. Other Subsidy) improved from 2.5% of Revenue booked in FY21 to 3% in FY22
    - Tariff Subsidy received improved from 87% of subsidy booked in FY21 to 105% in FY22.
  - AT&C losses improved from 18.5% in FY21 to 11.7% in FY22 – driven majorly by improvement in Collection Efficiency (from 92% in FY21 to 100% in FY22)
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 33<sup>rd</sup>ile performers in ACS-ARR Gap (cash adjusted)
  - Positive PBT (3% of Revenue booked)
  - High Total Subsidy disbursement – 105% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables ((-2%) of Revenue booked)
- Healthy Adjusted Quick Ratio, currently at 1.04
- Healthy Cash adjusted Leverage, currently at 4.29

#### Performance Excellence

- Collection Efficiency currently at 100%
- Achieved SERC approved Distribution loss target

#### External Environment

- Discom implements automatic pass-through of fuel costs
- 

### Key Improvement Areas

#### Specific Disincentives

- Ind-AS may be complied and Employee Liabilities may be addressed to remove audit qualification
- Quarterly accounts can be prepared by discom

# Ajmer Vidyut Vitran Nigam Limited (AVVNL)



## Overview of AVVNL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	19-Jun-2000
Nature of operations	Distribution
Area of operations	11 districts of Rajasthan, namely Ajmer, Bhilwara, Nagaur, Sikar, Jhunjhunu, Udaipur, Banswara, Chittorgarh, Rajsamand, Dungarpur and Pratapgarh
Number of customers	5,431,063
% Agricultural customers	10.63%
% C&I customers	7.85%
Gross input energy	25,571 MU (10% change) <sup>3</sup>
Total energy sold	20,935 MU (12% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 17,088 Cr (10% change) <sup>3</sup>
Profit after tax	INR 558 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

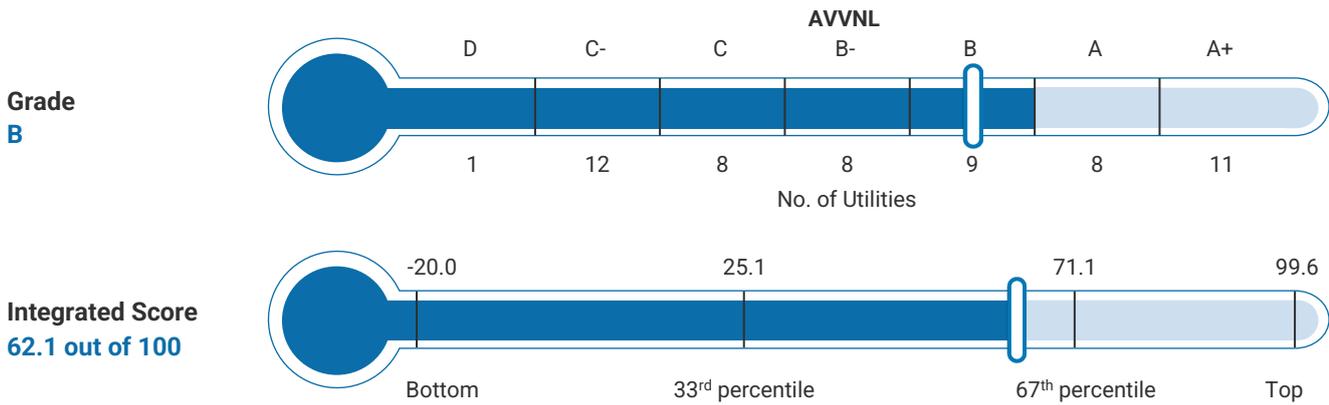
3. Compared to FY 2021.

## Key Insights

- AVVNL score improved significantly from 21.5 (10<sup>th</sup> Ratings) to 62.1 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR Gap, DSCR, Leverage, Collection Efficiency metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

AVVNL achieved Rank 19 (out of 51 utilities), with Grade B and Integrated Score of 62.1 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

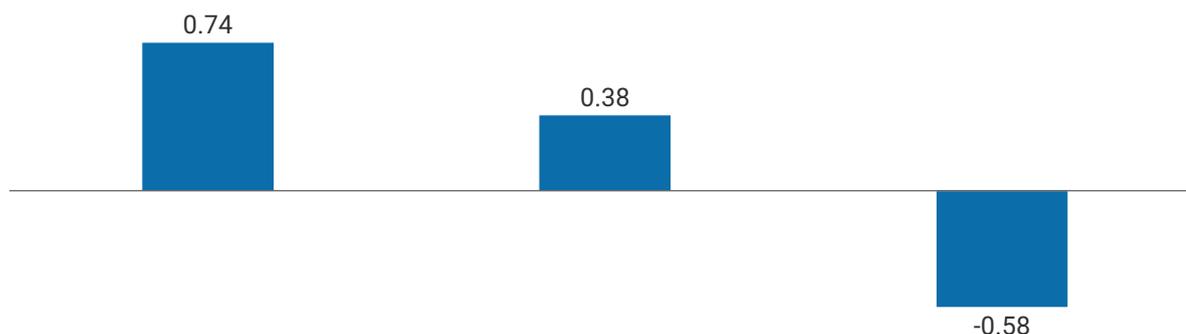


## Summary of Performance across Metrics

Integrated Score: 62.1 out of 100					
Base Rating Score: 67.4					
Financial Sustainability		Performance Excellence		External Environment	
ACS – ARR gap (cash adjusted)	35.0	35	Distribution Loss (SERC approved)	2.0	2
Days Receivable	3.0	3	Billing Efficiency	1.8	5
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	3.7	5
Adjusted Quick Ratio	2.8	10	Corporate Governance	0.0	1
Debt Service Coverage Ratio (cash adjusted)	4.4	10	Subsidy Realized (last 3 FYs)	1.6	4
Leverage Debt/EBITDA (cash adjusted)	6.2	7	Loss Takeover by State Government	3.0	3
			Government Dues (Last 3 FYs)	2.9	3
			Tariff Cycle Timelines	0.0	1
			Auto Pass Through of Fuel Costs	1.0	1
Specific Disincentives: -5.3					
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	-1.0	-4
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	-1.3	-4.5
			Tariff Independent of Subsidy	0.0	-1
			Uncovered Revenue Gap (Current Year)	0.0	-4
			Regulatory Assets	-3.1	-5

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



FY 2020	FY 2021	FY 2022
2.53   0.35   -2.24	2.33   0.57   -1.64	2.45   0.05   -1.52

ACS - ARR Gap across all DISCOMs – **Highest** | Median | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **-0.14 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-167% (improving)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	18.02	7.05	77%	96%	105%	130%
Power purchase cost	11.99	4.69	95%	84%	74%	50%
O&M expenses	1.90	0.74	38%	14%	9%	1%
Interest	2.49	0.97	19%	7%	3%	0%
Other expenses	0.16	0.06				
Gap / Surplus	1.49	-0.58	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from 0.38 in FY21 to (-0.58) in FY22
  - PBT (excl. Other Subsidy) improved from -2% of Revenue booked in FY21 to -0.3% in FY22
  - Tariff Subsidy received improved from 75% of subsidy booked in FY21 to 122% in FY22. Further, the DISCOM received Other Subsidy of ~4% of Revenue booked in FY22.
- AT&C losses improved from ~21.4% in FY21 to ~12.7% in FY22 – driven majorly by improvement in Collection Efficiency (from ~92.6% in FY21 to ~100% in FY22)

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### Key Strengths

#### Financial Sustainability

- Amongst the top 20%ile performers in ACS-ARR Gap (cash adjusted)
  - Positive PBT (~3% of Revenue booked)
  - High Total Subsidy disbursement – 119% of Subsidy booked
  - Positive cash adjustment due to Trade Receivables
- Amongst the top 10%ile performers in Days Receivable – currently at ~16 days as against National median of ~71 days
- Healthy Cash adjusted Leverage, currently at 4.83

#### Performance Excellence

- Collection Efficiency currently at 100%
- Achieved SERC - approved Distribution loss target

#### External Environment

- Regulation supports automatic pass-through of fuel costs

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### Key Improvement Areas

#### Financial Sustainability

- Days Payable may be reduced – currently at ~80 days as compared to LPS norm of ~45 days
- Debt levels can be reduced – currently Debt as % of Revenue booked is significantly high at ~117%, as compared to National median of ~50%
- Adjusted Quick Ratio can be improved, currently at 0.60 (for max. score, expected is 1.00)

#### Performance Excellence

- Billing Efficiency can be improved – currently at 87.3% (for max. score, expected is 92%+)

#### Specific Disincentives

- Ind-AS can be adopted to remove Audit Qualification
- Tariff and True-up Orders should be issued within the rating timelines
- Pace of Regulatory Assets liquidation needs to be improved - 11% liquidated (for max. score, pace of liquidation should be 28%+)

# Jodhpur Vidyut Vitran Nigam Limited (JDVVNL)



Rank  
39 out of 51



Grade

## Overview of JDVVNL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	19-Jun-2000
Nature of operations	Distribution
Area of operations	10 districts of Rajasthan, namely Jodhpur, Jaisalmer, Jalore, Sirohi, Pali, Barmer, Bikaner, Churu, Ganganagar and Hanumangarh
Number of customers	4,543,999
% Agricultural customers	9.34%
% C&I customers	7.99%
Gross input energy	33,032 MU (9% change) <sup>3</sup>
Total energy sold	24,313 MU (9% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 19,749 Cr (7% change) <sup>3</sup>
Profit after tax	INR -1,465 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

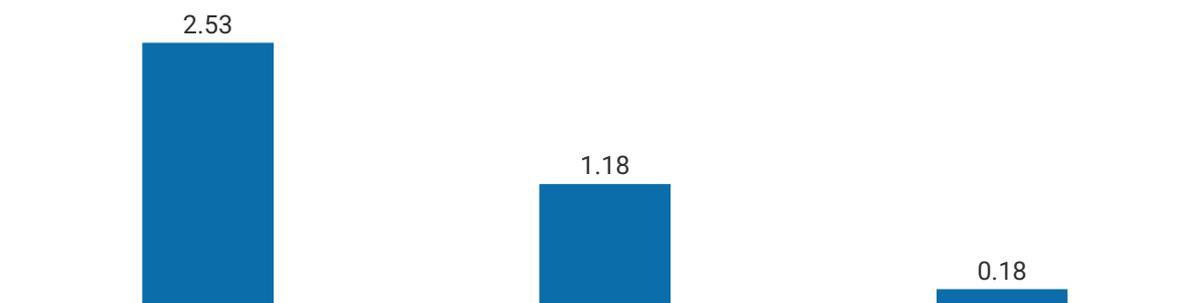
3. Compared to FY 2021.

## Key Insights

- JdVVNL score improved from 7.7 (10<sup>th</sup> Ratings) to 20.9 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR Gap, Leverage metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts



## Analysis of ACS-ARR Gap (In INR / kWh)



FY	Highest	Median	Lowest
FY 2020	2.53	0.35	-2.24
FY 2021	2.33	0.57	-1.64
FY 2022	2.45	0.05	-1.52

ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **0.78 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-73% (improving)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	20.62	6.24	77%	96%	104%	130%
Power purchase cost	15.29	4.63	95%	84%	74%	50%
O&M expenses	1.55	0.47	38%	14%	9%	1%
Interest	3.49	1.06	19%	7%	3%	0%
Other expenses	0.88	0.27				
Gap / Surplus	-0.59	0.18	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved significantly from 1.18 in FY21 to 0.18 in FY22
  - PBT (excl. Other Subsidy) declined from (-11%) of Revenue booked in FY21 to (-14%) in FY22
  - Tariff Subsidy received improved from 75% of subsidy booked in FY21 to 113% in FY22. Further, the DISCOM received Other Subsidy of 7% of Revenue booked in FY22.
- AT&C losses improved from 31.0% in FY21 to 21.9% in FY22 – driven majorly by improvement in Collection Efficiency (from 89.0% in FY21 to 100% in FY22)

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### Key Strengths

#### Performance Excellence

- Collection Efficiency currently at 100%

#### External Environment

- Discom implements automatic pass-through of fuel costs

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### Key Improvement Areas

#### Financial Sustainability

- Days Payable may be reduced – currently at 164 days as compared to LPS norm of 45 days
- Debt levels can be reduced – currently Debt as % of Revenue booked is significantly high at 117%, as compared to National median of 50%

#### Performance Excellence

- Billing Efficiency can be improved – currently at 78.1% (for max. score, expected is 92%+)
- Distribution losses may be reduced – current losses are higher than SERC-approved levels

#### Specific Disincentives

- Ind-AS can be adopted and Employee Liabilities can be addressed to remove Audit Qualification
- Tariff and True-up Orders should be issued within the rating timelines
- Pace of Regulatory Assets liquidation needs to be improved – Regulatory Assets increased by 13% since FY21 (for max. score, pace of liquidation should be 28%+)

# Jaipur Vidyut Vitran Nigam Limited (JVVNL)



Rank  
29 out of 51



Grade

## Overview of JVVNL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	19-Jun-2000
Nature of operations	Distribution
Area of operations	12 districts of Rajasthan, namely, Jaipur, Dausa, Alwar, Bharatpur, Dholpur, Sawaimadhopur, Tonk, Karauli, Kota, Jhalawar, Baran & Bundi
Number of customers	5,038,760
% Agricultural customers	11.45%
% C&I customers	9.39%
Gross input energy	35,698 MU (6% change) <sup>3</sup>
Total energy sold	27,941 MU (9% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 22,743 Cr (4% change) <sup>3</sup>
Profit after tax	INR 436 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

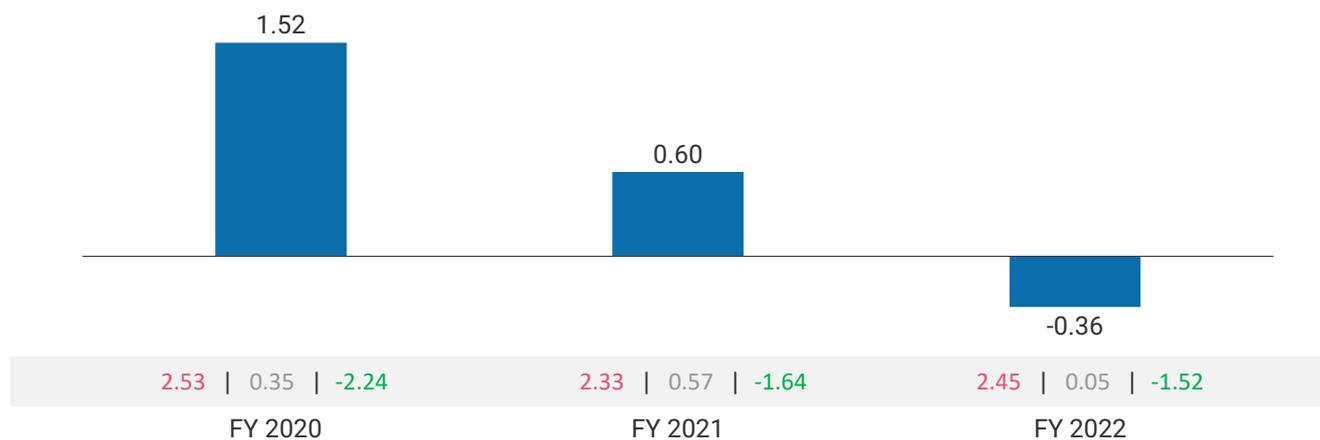
3. Compared to FY 2021.

## Key Insights

- JVVNL score improved significantly from 16.7 (10<sup>th</sup> Ratings) to 42.8 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR gap, DSCR, Collection Efficiency metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts



## Analysis of ACS-ARR Gap (In INR / kWh)



ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **0.16 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-150% (improving)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	23.61	6.61	77%	96%	104%	130%
Power purchase cost	16.58	4.65	95%	84%	74%	50%
O&M expenses	1.44	0.40	38%	14%	9%	1%
Interest	3.32	0.93	19%	7%	3%	0%
Other expenses	0.96	0.27				
Gap / Surplus	1.30	-0.36	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap is improved from 0.60 in FY21 to (-0.36) in FY22
  - PBT (excl. Other Subsidy) improved from (-5%) of Revenue booked in FY21 to (-2%) in FY22
  - Tariff Subsidy received improved from 82% of Subsidy booked in FY21 to 119% in FY22. Further, the DISCOM received Other Subsidy of ~4% of Revenue booked in FY22.
  - Cash adjustment due to Trade Receivables has improved from (-2%) of Revenue booked in FY21 to (-0.40%) in FY22
- AT&C losses improved from 25.1% in FY21 to 16.8% in FY22 – driven by improvement in Billing Efficiency (from 80.6% in FY21 to 83.2% in FY22) and Collection Efficiency (from 93.0% in FY21 to 100.0% in FY22)

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### Key Strengths

#### Financial Sustainability

- Amongst the top 20%ile performers in ACS-ARR Gap (cash adjusted)
  - Positive PBT (2% of Revenue booked)
  - High Total Subsidy disbursement – 116% of Subsidy booked
  - Marginally negative cash adjustment due to Trade Receivables
- Healthy Cash adjusted Leverage, currently at 4.09

#### Performance Excellence

- Collection Efficiency currently at 100%

#### External Environment

- Discom implements automatic pass-through of fuel costs

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### Key Improvement Areas

#### Financial Sustainability

- Days Payable may be reduced – currently at 173 days as compared to LPS norm of 45 days
- Debt levels can be reduced – currently Debt as % of Revenue booked is significantly high at 101%, as compared to National median of 50%

#### Specific Disincentives

- Ind-AS can be adopted to remove Audit Qualification
- Director Finance should be exclusive
- Tariff and True-up Orders should be issued within the rating timelines
- Pace of Regulatory Assets liquidation needs to be improved – 11% liquidated since FY21 (for max. score, pace of liquidation should be 28%+)

# Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO)



Rank  
49 out of 51



Grade

## Overview of TANGEDCO<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	1-Dec-2009
Nature of operations	Generation & Distribution
Area of operations	State of Tamil Nadu
Number of customers	31,747,501
% Agricultural customers	7.20%
% C&I customers	13.05%
Gross input energy	98,040 MU (11% change) <sup>3</sup>
Total energy sold	80,613 MU (9% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 61,371 Cr (23% change) <sup>3</sup>
Profit after tax	INR -11,955 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

3. Compared to FY 2021.

## Key Insights

- TANGEDCO score declined from -1.6 (10<sup>th</sup> Ratings) to -0.9 (11<sup>th</sup> Ratings)
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts





## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from 2.12 in FY21 to 1.79 in FY22
  - PBT (excl. Other Subsidy) improved from (-48%) of Revenue booked in FY21 to (-38%) in FY22
  - Tariff Subsidy received remained constant at 100% of subsidy booked in FY21 and FY22. Further, the DISCOM received Other Subsidy of ~18% of Revenue booked in FY22
- AT&C losses deteriorated from 11.9% in FY21 to 13.5% in FY22 – driven by decline in Billing Efficiency (from 89.5% in FY21 to 87.9% in FY22)

### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap may be reduced – currently at INR 1.79/kWh
  - Negative PBT ((-19%) of Revenue booked)
  - Total Subsidy received – 98% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables ((-1%) of Revenue booked)
- Days Payable may be reduced – currently at ~200 days as compared to LPS norm of ~45 days
- Debt Service Coverage Ratio (cash adjusted) may be improved – currently at (-0.26) (for max. score, expected greater than or equal to 1.1)
- Leverage can be improved which is currently at (-48.14) (for max. score, expected greater than 0 up to 5)
- Debt levels can be reduced – currently Debt as % of Revenue booked is significantly high at ~251%, as compared to National median of ~50%

#### Performance Excellence

- Billing Efficiency can be improved – currently at 87.9% (for max. score, expected is 92%+)

#### External Environment

- Automatic pass-through of fuel costs can be implemented
- Government support required for taking over of Discom losses

#### Specific Disincentives

- Red Card on account of Auditor's Adverse Opinion – needs to be addressed
- Tariff and True-up Orders should be issued within the rating timelines
- Pace of Regulatory Assets liquidation needs to be improved – Regulatory Assets increased by 9% since FY21 (for max. score, pace of liquidation should be 28%+)

# Northern Power Distribution Company of Telangana Limited (TSNPDCL)



Rank  
47 out of 51



Grade

## Overview of TSNPDCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	30-Mar-2000
Nature of operations	Distribution
Area of operations	17 districts of North Telangana
Number of customers	6,348,874
% Agricultural customers	19.72%
% C&I customers	8.84%
Gross input energy	22,620 MU (3% change) <sup>3</sup>
Total energy sold	19,871 MU (4% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 15,426 Cr (32% change) <sup>3</sup>
Profit after tax	INR -204 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

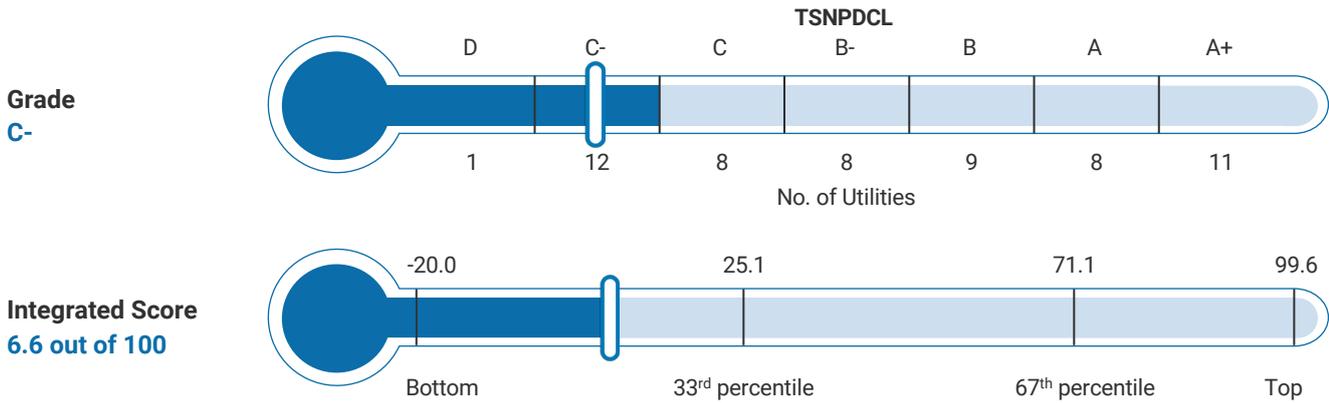
3. Compared to FY 2021.

## Key Insights

- TSNPDCL score declined from 8.6 (10<sup>th</sup> Ratings) to 6.6 (11<sup>th</sup> Ratings).
- Major decline in ACR-ARR gap metric in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

TSNPDCL achieved Rank 47 (out of 51 utilities), with Grade C- and Integrated Score of 6.6 out of 100. Further, it exhibited a Declining Trajectory w.r.t. Integrated Score

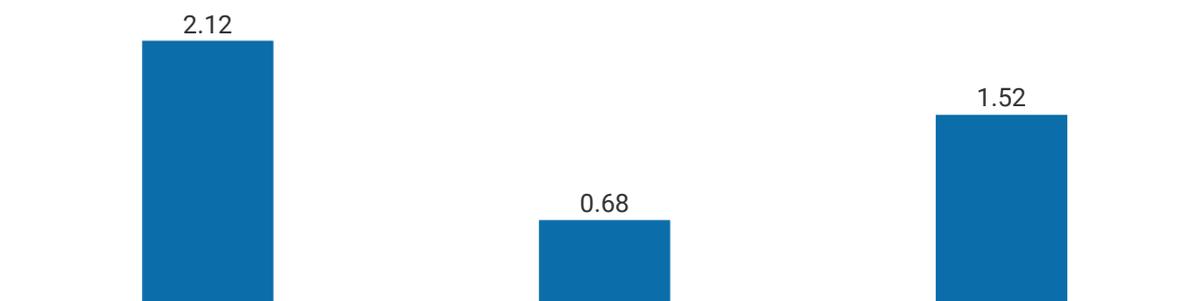


## Summary of Performance across Metrics

Integrated Score: 6.6 out of 100									
Base Rating Score: 12.1									
Financial Sustainability			Performance Excellence			External Environment			
ACS – ARR gap (cash adjusted)	0.0	35	Distribution Loss (SERC approved)	2.0	2	Subsidy Realized (last 3 FYs)	2.9	4	
Days Receivable	0.0	3	Billing Efficiency	3.6	5	Loss Takeover by State Government	0.0	3	
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	1.1	5	Government Dues (Last 3 FYs)	0.6	3	
Adjusted Quick Ratio	1.4	10	Corporate Governance	0.0	1	Tariff Cycle Timelines	0.5	1	
Debt Service Coverage Ratio (cash adjusted)	0.0	10				Auto Pass Through of Fuel Costs	0.0	1	
Leverage Debt/EBITDA (cash adjusted)	0.0	7							
Specific Disincentives: -5.5									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	-4.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	-1.5	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



2.53 | 0.35 | -2.24      2.33 | 0.57 | -1.64      2.45 | 0.05 | -1.52

FY 2020      FY 2021      FY 2022

ACS - ARR Gap across all DISCOMs – Highest | Median | Lowest

ACS-ARR Gap – Weighted Average for 11th Ratings: **1.40 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-15% (improving)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	12.18	5.39	77%	96%	100%	130%
Power purchase cost	12.33	5.45	95%	84%	74%	50%
O&M expenses	2.00	0.88	38%	14%	9%	1%
Interest	0.98	0.43	19%	7%	3%	0%
Other expenses	0.33	0.14				
Gap / Surplus	-3.45	1.52	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated from 0.68 in FY21 to 1.52 in FY22
  - PBT (excl. Other Subsidy) improved from (-21%) of Revenue booked in FY21 to (-19%) in FY22
  - Tariff Subsidy received remained constant at 100% of subsidy booked in FY21 and FY22.
  - Cash adjustment due to Trade Receivables has declined from 8% of Revenue booked in FY21 to (-4%) in FY22
- AT&C losses deteriorated from 9.0% in FY21 to 14.1% in FY22 – driven majorly by decline in Collection Efficiency (from 100% in FY21 to 94.2% in FY22)

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### Key Strengths

#### Performance Excellence

- Achieved SERC - approved Distribution loss target

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### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap can be reduced – currently at INR 1.52/kWh
  - Negative PBT ((-1%) of Revenue booked)
  - Total Subsidy Received – 61% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables ((-4%) of Revenue booked)
- Days Payable can be reduced – currently at ~356 days as compared to LPS norm of ~45 days
- Days Receivable can be reduced – currently at ~267 days (for max. score, expected less than or equal to 60 days)
- Debt Service Coverage Ratio (cash adjusted) may be improved – currently at (-1.24) (for max. score, expected is greater than or equal to 1.1)
- Leverage can be improved which is currently at (-5.23) (for max. score, expected greater than 0 up to 5)

#### External Environment

- Government dues can be lowered – currently 40% of total amount billed to Government in the past 3 years is due
- Automatic pass-through of fuel costs should be implemented
- Require regulatory support for issuance of true-up order for FY21
- Govt. Support required for taking over of Discom losses

#### Specific Disincentives

- Ind-AS can be adopted, Employee liabilities and Going concern can be addressed to remove Audit Qualification
- True-up Order should be issued within the rating timelines

# Southern Power Distribution Company of Telangana Limited (TSSPDCL)



Rank  
43 out of 51



Grade

## Overview of TSSPDCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	30-Mar-2000
Nature of operations	Distribution
Area of operations	15 districts of South Telangana
Number of customers	10,436,589
% Agricultural customers	12.82%
% C&I customers	11.70%
Gross input energy	52,030 MU (17% change) <sup>3</sup>
Total energy sold	46,029 MU (14% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 33,277 Cr (38% change) <sup>3</sup>
Profit after tax	INR -627 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

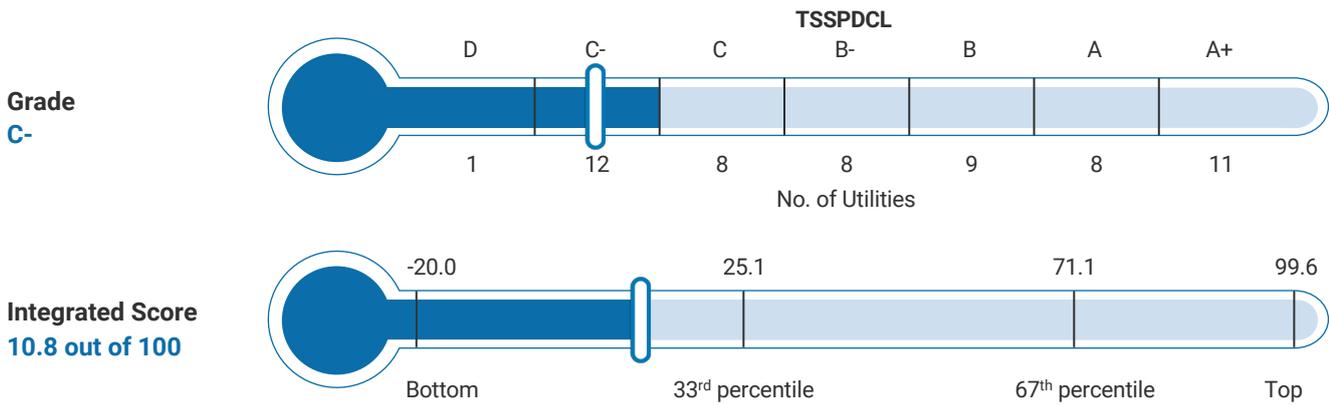
3. Compared to FY 2021.

## Key Insights

- TSSPDCL score improved from 2.5 (10<sup>th</sup> Ratings) to 10.8 (11<sup>th</sup> Ratings)
- Major improvement in Collection Efficiency, Audit Qualifications metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

TSSPDCL achieved Rank 43 (out of 51 utilities), with Grade C- and Integrated Score of 10.8 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

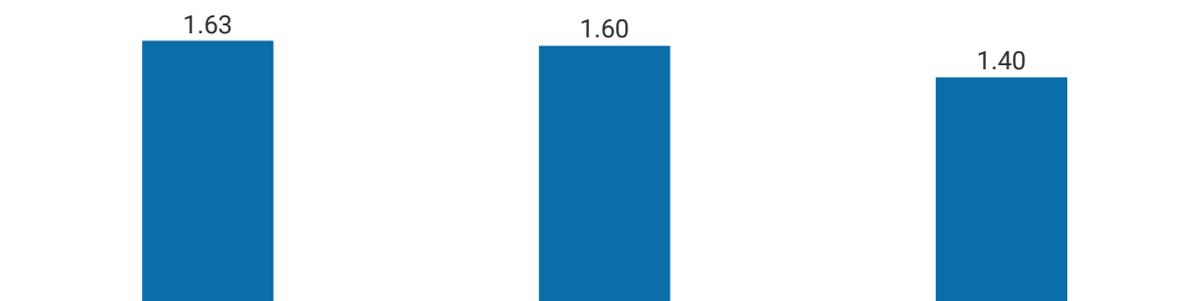


## Summary of Performance across Metrics

Integrated Score: 10.8 out of 100									
Base Rating Score: 14.3									
Financial Sustainability			Performance Excellence			External Environment			
ACS – ARR gap (cash adjusted)			Distribution Loss (SERC approved)			Subsidy Realized (last 3 FYs)			
Days Receivable			Billing Efficiency			Loss Takeover by State Government			
Days Payable to GenCos & TransCos			Collection Efficiency			Government Dues (Last 3 FYs)			
Adjusted Quick Ratio			Corporate Governance			Tariff Cycle Timelines			
Debt Service Coverage Ratio (cash adjusted)						Auto Pass Through of Fuel Costs			
Leverage Debt/EBITDA (cash adjusted)									
Specific Disincentives: -3.5									
Auditor's Adverse Opinion			Audit Qualifications			Tariff Independent of Subsidy			
Availability of Audited Accounts			Governance (Audit Committee, Exclusive MD & DF)			Uncovered Revenue Gap (Current Year)			
Default to Banks/FIs			Tariff Cycle Delays			Regulatory Assets			

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



2.53 | 0.35 | -2.24      2.33 | 0.57 | -1.64      2.45 | 0.05 | -1.52

FY 2020      FY 2021      FY 2022

ACS - ARR Gap across all DISCOMs – Highest | Median | Lowest

ACS-ARR Gap – Weighted Average for 11th Ratings: **1.49 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-7% (improving)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	26.39	5.07	77%	96%	100%	130%
Power purchase cost	28.03	5.39	95%	84%	74%	50%
O&M expenses	2.31	0.44	38%	14%	9%	1%
Interest	2.35	0.45	19%	7%	3%	0%
Other expenses	1.01	0.19				
Gap / Surplus	-7.30	1.40	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from 1.60 in FY21 to 1.40 in FY22
  - PBT (excl. Other Subsidy) declined from (-19%) of Revenue booked in FY21 to (-20%) in FY22
  - Tariff Subsidy received remained constant at 100% of subsidy booked in FY21 and FY22.
  - Cash adjustment due to Trade Receivables improved from (-10%) of Revenue booked in FY21 to (-2%) in FY22
- AT&C losses improved from 15.5% in FY21 to 9.1% in FY22 – driven majorly by improvement in Collection Efficiency (from 91.1% in FY21 to 100% in FY22)

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### Key Strengths

#### Performance Excellence

- Collection Efficiency currently at 100%
- Achieved SERC - approved Distribution loss target

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### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap may be improved – currently at INR 1.40/ kWh
  - Negative PBT ((-1%) of Revenue booked)
  - Total Subsidy Received – 18% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables ((-2%) of Revenue booked)
- Days Payable may be reduced – currently at 375 days as compared to LPS norm of 45 days
- Days Receivables may be reduced – currently at 130 days (for max. score, expected less than or equal to 60 days)
- Adjusted Quick Ratio can be improved, currently at 0.36 (for max. score, expected is 1.00)
- Debt Service Coverage Ratio (cash adjusted) can be improved – currently it is (-0.75) (for max. score, expected greater than or equal to 1.1)
- Leverage (cash adjusted) may be improved – currently at (-4.57) (for max. score, expected greater than 0 upto 5)

#### External Environment

- Government dues can be lowered – currently ~25% of total amount billed to Government in the past 3 years is due
- Govt. Support required for taking over of Discom losses
- Require regulatory support for issuance of true-up order for FY21
- Automatic pass-through of fuel costs can be implemented

#### Specific Disincentives

- Ind-AS can be adopted, Employee Liabilities can be addressed to remove Audit Qualification
- True-up Order should be issued within the rating timelines

# Tripura State Electricity Corporation Limited (TSECL)



## Overview of TSECL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	9-Jun-2004
Nature of operations	Generation, Transmission, and Distribution
Area of operations	State of Tripura
Number of customers	953,047
% Agricultural customers	0.83%
% C&I customers	8.20%
Gross input energy	3,198 MU (7% change) <sup>3</sup>
Total energy sold	2,656 MU (9% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 1,606 Cr (9% change) <sup>3</sup>
Profit after tax	INR -102 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

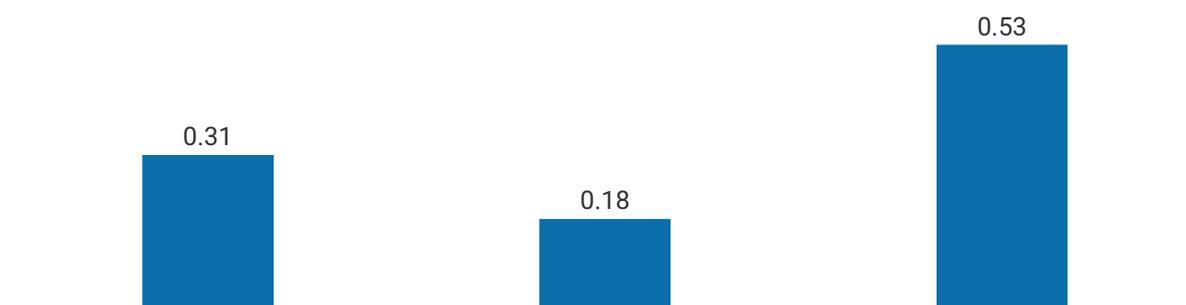
3. Compared to FY 2021.

## Key Insights

- TSECL score declined from 39.0 (10<sup>th</sup> Ratings) to 35.2 (11<sup>th</sup> Ratings).
- Major decline in ACR-ARR gap, Loss Takeover by State Government metrics in FY22
- Major improvement in Regulatory Assets metric in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts



## Analysis of ACS-ARR Gap (In INR / kWh)



FY	Highest	Median	Lowest
FY 2020	2.53	0.35	-2.24
FY 2021	2.33	0.57	-1.64
FY 2022	2.45	0.05	-1.52

ACS - ARR Gap across all DISCOMs – Highest | Median | Lowest

ACS-ARR Gap – Weighted Average for 11th Ratings: **0.41 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **31% (deteriorating)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	1.54	4.81	77%	96%	100%	130%
Power purchase cost	1.42	4.44	95%	84%	74%	50%
O&M expenses	0.25	0.77	38%	14%	9%	1%
Interest	0.01	0.04	19%	7%	3%	0%
Other expenses	0.03	0.09				
Gap / Surplus	-0.17	0.53	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated from 0.18 in FY21 to 0.53 in FY22
  - PBT (excl. Other Subsidy) declined from 1% of Revenue booked in FY21 to (-6%) in FY22
  - Tariff Subsidy received improved from 74% of subsidy booked in FY21 to 87% in FY22.
- AT&C losses improved from 37.4% in FY21 to 33.2% in FY22 – driven majorly by improvement in Billing Efficiency (from 71.5% in FY21 to 75.3% in FY22)

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### Key Strengths

#### Financial Sustainability

- Healthy Adjusted Quick Ratio, currently at 1.14

#### External Environment

- Discom implements automatic pass-through of fuel costs

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### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap may be improved – currently at INR 0.53/ kWh
  - Negative PBT ((-6%) of Revenue booked)
  - Total Subsidy disbursement – 87% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables ((-4%) of Revenue booked)
- Debt Service Coverage Ratio (cash adjusted) may be improved – currently at (-4.02) (for max. score, expected greater than or equal to 1.1)
- Leverage (cash adjusted) may be improved – currently at (-5.16) (for max. score, expected greater than 0 upto 5)

#### Performance Excellence

- Billing Efficiency can be improved – currently at 75.3% (for max. score, expected is 92%+)
- Collection Efficiency can be improved – currently at 88.7% (for max. score, expected is 99.5%+)
- Distribution losses may be reduced – current losses are higher than SERC-approved levels

#### External Environment

- Govt. Support required for taking over of Discom losses
- Require regulatory support for issuance of true-up order for FY21

#### Specific Disincentives

- Ind-AS can be complied to remove audit qualification
- Tariff Orders and True-up Orders, Tariff Petition should be issued within the rating timelines

# Dakshinanchal Vidyut Vitran Nigam Limited (DVVNL)



## Overview of DVVNL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	1-May-2003
Nature of operations	Distribution
Area of operations	In the Districts of Agra, Mathura, Mainpuri, Aligarh, Hathras, Etawah, Etah, Farrukhabad, Firozabad, Kanpur City, Kanpur rural, Banda, Jhansi, Kannauj, Auraiya, Jalaun Urai, Hamirpur, Mahoba, Lalitpur, Chitrakoot, Kanshiram Nagar in the State of Uttar Pradesh
Number of customers	5,763,672
% Agricultural customers	5.32%
% C&I customers	5.40%
Gross input energy	25,725 MU (-1% change) <sup>3</sup>
Total energy sold	19,129 MU (0% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 14,824 Cr (12% change) <sup>3</sup>
Profit after tax	INR -2,958 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

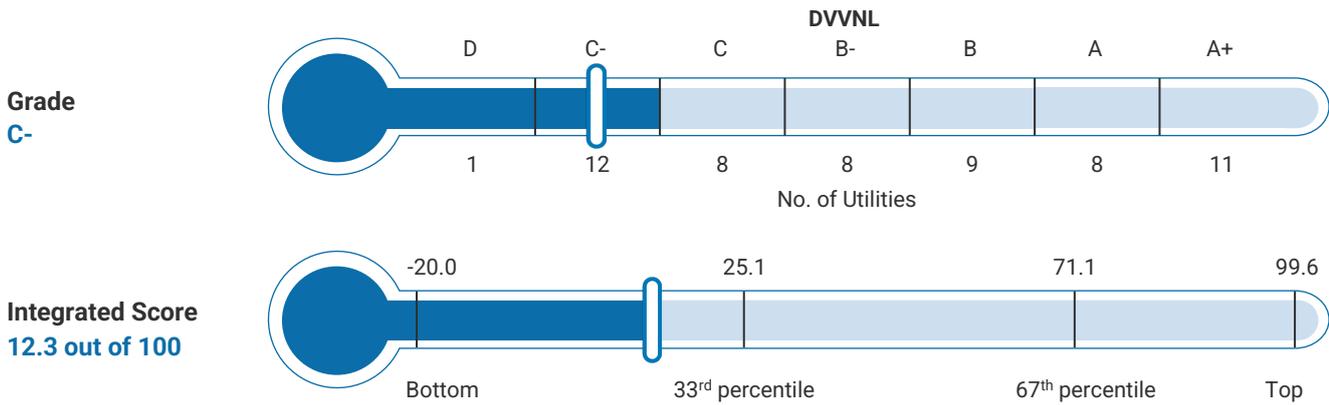
3. Compared to FY 2021.

## Key Insights

- DVVNL score improved from 9.1 (10<sup>th</sup> Ratings) to 12.3 (11<sup>th</sup> Ratings).
- Major improvement in Leverage and Government Dues metrics in FY22
- Major decline in ACS-ARR Gap metric in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

DVVNL achieved Rank 42 (out of 51 utilities), with Grade C- and Integrated Score of 12.3 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

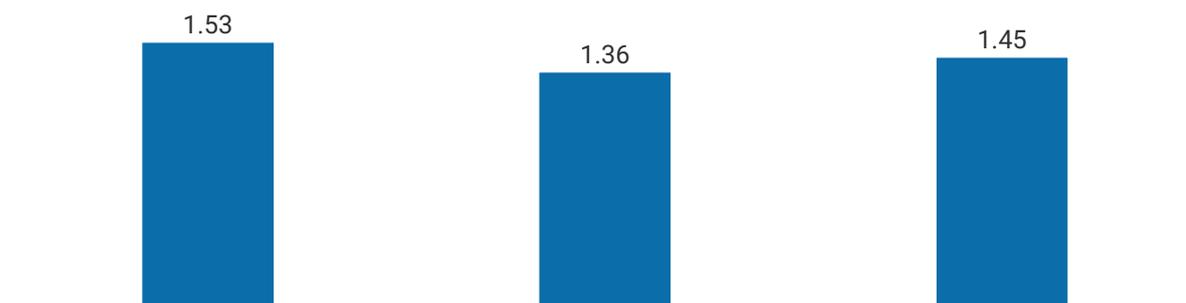


## Summary of Performance across Metrics

Integrated Score: 12.3 out of 100					
Base Rating Score: 15.8					
Financial Sustainability		Performance Excellence		External Environment	
	7.0	75		1.5	13
ACS – ARR gap (cash adjusted)	0.0	35	Distribution Loss (SERC approved)	0.0	2
Days Receivable	0.0	3	Billing Efficiency	0.0	5
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	1.5	5
Adjusted Quick Ratio	0.0	10	Corporate Governance	0.0	1
Debt Service Coverage Ratio (cash adjusted)	0.0	10			
Leverage Debt/EBITDA (cash adjusted)	7.0	7	Subsidy Realized (last 3 FYs)	4.0	4
			Loss Takeover by State Government	0.8	3
			Government Dues (Last 3 FYs)	2.6	3
			Tariff Cycle Timelines	0.0	1
			Auto Pass Through of Fuel Costs	0.0	1
Specific Disincentives: -3.5					
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	-1.0	-4
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	-1.5	-4.5
			Tariff Independent of Subsidy	-1.0	-1
			Uncovered Revenue Gap (Current Year)	0.0	-4
			Regulatory Assets	0.0	-5

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



Fiscal Year	Highest	Median	Lowest
FY 2020	2.53	0.35	-2.24
FY 2021	2.33	0.57	-1.64
FY 2022	2.45	0.05	-1.52

ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **1.44 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-3% (stable)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	14.06	5.46	77%	96%	100%	130%
Power purchase cost	10.91	4.24	95%	84%	74%	50%
O&M expenses	1.64	0.64	38%	14%	9%	1%
Interest	2.15	0.84	19%	7%	3%	0%
Other expenses	3.08	1.20				
Gap / Surplus	-3.73	1.45	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated from 1.36 in FY21 to 1.45 in FY22
  - PBT (excl. Other Subsidy) remained constant at (-23%) of Revenue booked for FY21 and FY 22
  - Tariff Subsidy received remained constant at 100% for FY21 and FY 22 Further, the DISCOM received Other Subsidy of 3% of Revenue booked in FY22.
  - Cash adjustment due to Trade Receivables improved from (-10%) of Revenue booked in FY21 to (-5%) in FY22
- AT&C losses improved from 32.1% in FY21 to 28.6% in FY22 – driven majorly by improvement in Collection Efficiency (from 91.7% in FY21 to 96.0% in FY22)

### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap may be improved – currently at INR 1.45/ kWh
  - Negative PBT ((-20%) of Revenue booked)
  - Total Subsidy disbursement – 100% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables ((-5%) of Revenue booked)
- Days Payable may be reduced – currently at 251 days as compared to LPS norm of 45 days
- Days Receivables may be reduced – currently at 596 days (for max. score, expected less than or equal to 60 days)
- Adjusted Quick Ratio can be improved, currently at 0.22 (for max. score, expected is 1.00)
- Debt Service Coverage Ratio (cash adjusted) can be improved – currently it is 0.36 (for max. score, expected greater than or equal to 1.1)
- Debt levels can be reduced – currently Debt as % of Revenue booked is significantly high at 145%, as compared to National median of ~50%

#### Performance Excellence

- Billing Efficiency can be improved – currently at 74.4% (for max. score, expected is 92%+)
- Distribution losses may be reduced – current losses are higher than SERC-approved levels

#### External Environment

- Automatic pass-through of fuel costs can be implemented
- Govt. support required for taking over of Discom losses

#### Specific Disincentives

- Employee Liabilities can be addressed to remove audit qualification
- Tariff and True-up Orders, Tariff Petition should be issued within the rating timelines
- Regulator can issue cost reflective tariff

# Kanpur Electricity Supply Company Limited (KESCO)



## Overview of KESCO<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	21-Jul-1999
Nature of operations	Distribution
Area of operations	Kanpur City (Urban)
Number of customers	672,805
% Agricultural customers	Negligible
% C&I customers	15.16%
Gross input energy	3,758 MU (11% change) <sup>3</sup>
Total energy sold	3,397 MU (12% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 3,012 Cr (-2% change) <sup>3</sup>
Profit after tax	INR -215 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

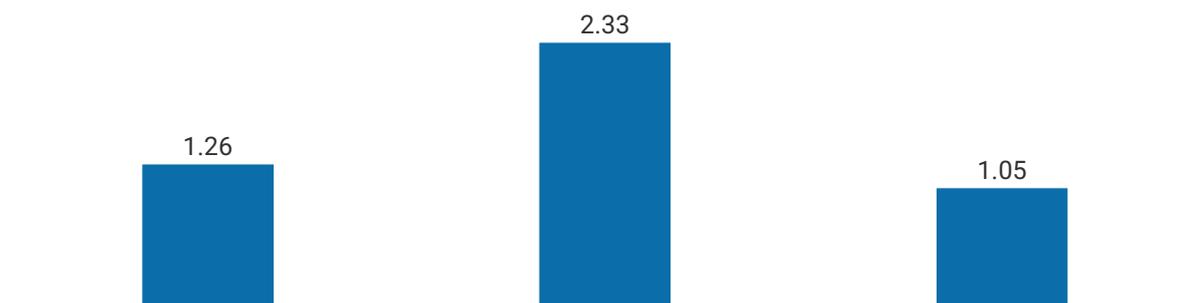
3. Compared to FY 2021.

## Key Insights

- KESCO score improved from 8.6 (10<sup>th</sup> Ratings) to 16.6 (11<sup>th</sup> Ratings). Grade over-ride due to ACS-ARR Gap boundary condition for C grade.
- Major improvement in ACR-ARR gap, Loss Takeover by State Government metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts



## Analysis of ACS-ARR Gap (In INR / kWh)



Fiscal Year	Highest	Median	Lowest
FY 2020	2.53	0.35	-2.24
FY 2021	2.33	0.57	-1.64
FY 2022	2.45	0.05	-1.52

ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **1.40 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-9% (improving)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	2.83	7.54	77%	94%	100%	130%
Power purchase cost	2.54	6.76	95%	84%	74%	50%
O&M expenses	0.38	1.02	38%	13%	9%	1%
Interest	0.26	0.68	19%	9%	3%	0%
Other expenses	0.05	0.13				
Gap / Surplus	-0.40	1.05	2.45	1.05	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved significantly from 2.33 in FY21 to 1.05 in FY22
  - PBT (excl. Other Subsidy) improved from (-22%) of Revenue booked in FY21 to (-14%) in FY22
  - The DISCOM received Other Subsidy of 9% of Revenue booked in FY22.
  - Cash adjustment due to Trade Receivables has declined from (-3%) of Revenue booked in FY21 to (-8%) in FY22
- AT&C losses deteriorated from 12.4% in FY21 to 15.5% in FY22 – driven by decline in Collection Efficiency (from 97.8% in FY21 to 93.4% in FY22)

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### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap can be improved – currently at INR 1.05/ kWh
  - Negative PBT ((-7%) of Revenue booked)
  - Total Subsidy disbursement – 123% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables ((-8%) of Revenue booked)
- Days Payable may be reduced – currently at 338 days as compared to LPS norm of 45 days
- Days Receivable may be reduced – currently at 425 days (for max. score, expected less than or equal to 60 days)
- Liquidity can be improved – Adjusted Quick Ratio currently at 0.19 (for max. score, expected is 1.00)
- Debt Service Coverage Ratio (Cash Adjusted) can be improved – currently at (-0.17) (for max. score, expected is greater than or equal to 1.1)
- Leverage (Cash Adjusted) can be improved – currently at (-30.90) (for max. score, expected is greater than 0 up to 5)
- Debt levels can be reduced – currently Debt as % of Revenue booked is significantly high at 94%, as compared to National median of 50%

#### External Environment

- Government dues can be lowered – currently ~35% of total amount billed to Government in the past 3 years is due
- Automatic pass-through of fuel costs can be implemented

#### Specific Disincentives

- Ind-AS may be complied to remove audit qualification
- Tariff Order, True-up Order, Tariff Petitions should be filed within the rating timelines
- Regulator can issue cost reflective tariff

# Madhyanchal Vidyut Vitran Nigam Limited (MVVNL)



## Overview of MVVNL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	1-May-2003
Nature of operations	Distribution
Area of operations	Districts of the State of Uttar Pradesh: Budaun, Bareilly, Pilibhit, Shahjahanpur, Lakhimpur, Hardoi, Sitapur, Unnao, Bahraich, Shrawasti, Balrampur, Gonda, Barabanki, Rae Bareli, Ayodhya, Sultanpur, Ambedkarnagar, Lucknow and Amethi.
Number of customers	8,726,984
% Agricultural customers	3.01%
% C&I customers	5.18%
Gross input energy	24,353 MU (4% change) <sup>3</sup>
Total energy sold	20,126 MU (7% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 18,433 Cr (16% change) <sup>3</sup>
Profit after tax	INR -2,042 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

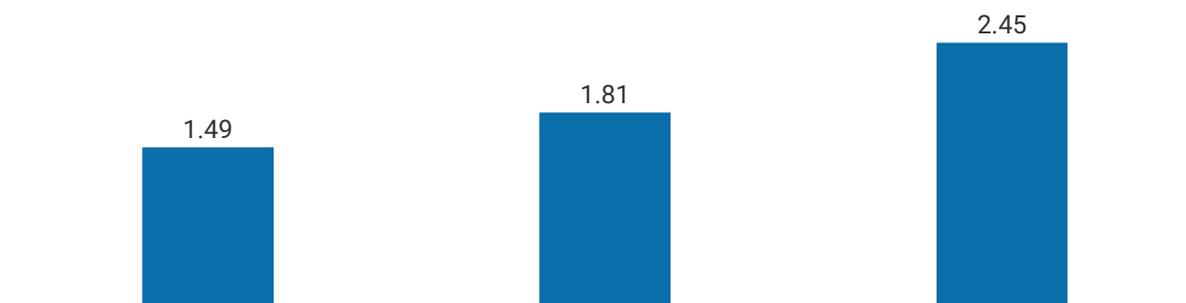
3. Compared to FY 2021.

## Key Insights

- MVVNL score declined from 6.3 (10<sup>th</sup> Ratings) to 3.4 (11<sup>th</sup> Ratings)
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts



## Analysis of ACS-ARR Gap (In INR / kWh)



FY	Highest	Median	Lowest
FY 2020	2.53	0.35	-2.24
FY 2021	2.33	0.57	-1.64
FY 2022	2.45	0.05	-1.52

ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **2.15 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **28% (deteriorating)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	14.50	5.96	77%	96%	100%	130%
Power purchase cost	13.78	5.66	95%	84%	74%	50%
O&M expenses	1.48	0.61	38%	14%	9%	1%
Interest	1.73	0.71	19%	7%	3%	0%
Other expenses	3.49	1.43				
Gap / Surplus	-5.97	2.45	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated from 1.81 in FY21 to 2.45 in FY22. FY21 have been recasted
  - PBT (excl. Other Subsidy) declined from (-15%) of Revenue booked in FY21 to (-19%) in FY22
  - Tariff Subsidy received remained constant at 100% of subsidy booked in FY21 and FY22. Further, the DISCOM received Other Subsidy of 8% of Revenue booked in FY22.
  - Cash adjustment due to Trade Receivables has declined from (-15%) of Revenue booked in FY21 to (-22%) in FY22
- AT&C losses deteriorated from 32.2% in FY21 to 34.9% in FY22 – driven by decline in Collection Efficiency (from 85% in FY21 to 78.8% in FY22)

### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap may be improved – currently at INR 2.45/ kWh
  - Negative PBT ((-11%) of Revenue booked)
  - Total Subsidy disbursement – 102% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables ((-22%) of Revenue booked)
- Days Payable may be reduced – currently at 263 days as compared to LPS norm of 45 days
- Days Receivable may be reduced – currently at 597 days (for max. score, expected less than or equal to 60 days)
- Liquidity can be improved – Adjusted Quick Ratio currently at 0.38 (for max. score, expected is 1.00)
- Debt Service Coverage Ratio can be improved – currently at (-0.22) (for max. score, expected is 1.1)
- Leverage can be improved – currently at (-23.72) (for max score, expected is between 0 and 5)
- Debt levels can be reduced – currently Debt as % of Revenue booked is significantly high at 98%, as compared to National median of ~50%

#### Performance Excellence

- Collection Efficiency can be improved – currently at 79% (for max. score, expected is 99.5%+)
- Distribution losses may be reduced – current losses are higher than SERC-approved levels

#### External Environment

- Automatic pass-through of fuel costs can be implemented

#### Specific Disincentives

- Ind-AS may be complied and Employee Liabilities may be addressed to remove audit qualification
- Tariff and True-up Orders, Tariff Petition should be issued within the rating timelines
- Regulator can issue cost reflective tariff

# Paschimanchal Vidyut Vitran Nigam Limited (PVVNL)



Rank  
33 out of 51



Grade

## Overview of PVVNL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	1-May-2003
Nature of operations	Distribution
Area of operations	Areas of District Meerut, Baghpat, Ghaziabad, Gautambudh Nagar, Bulandshahar, Hapur, Muzaffarnagar, Saharanpur, Shamli, Bijnor, Moradabad, Sambhal, J.P. Nagar and Rampur.
Number of customers	6,951,006
% Agricultural customers	6.91%
% C&I customers	8.11%
Gross input energy	34,428 MU (3% change) <sup>3</sup>
Total energy sold	28,239 MU (3% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 24,020 Cr (18% change) <sup>3</sup>
Profit after tax	INR -699 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

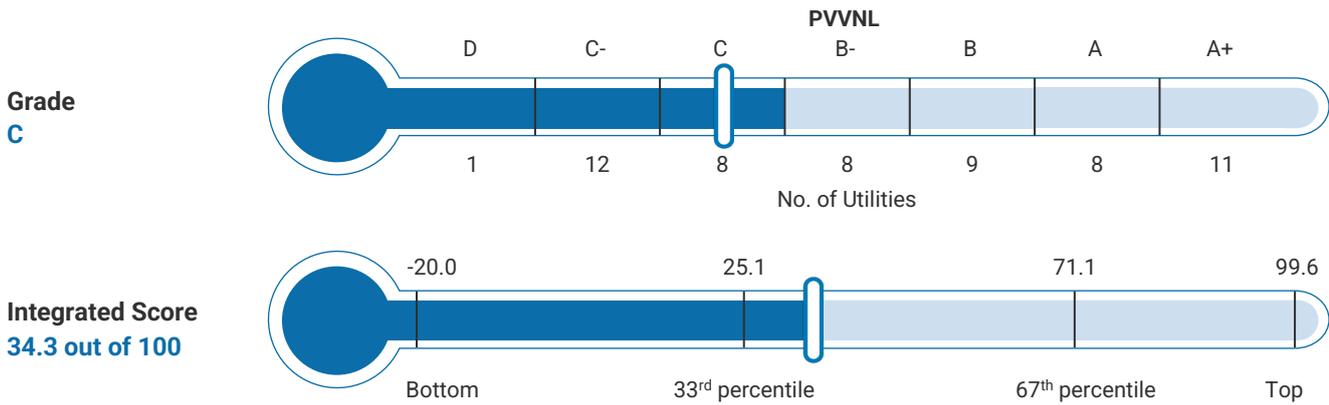
3. Compared to FY 2021.

## Key Insights

- PVVNL score improved significantly from 18.4 (10<sup>th</sup> Ratings) to 34.3 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR Gap, Leverage metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

PVVNL achieved Rank 33 (out of 51 utilities), with Grade C and Integrated Score of 34.3 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

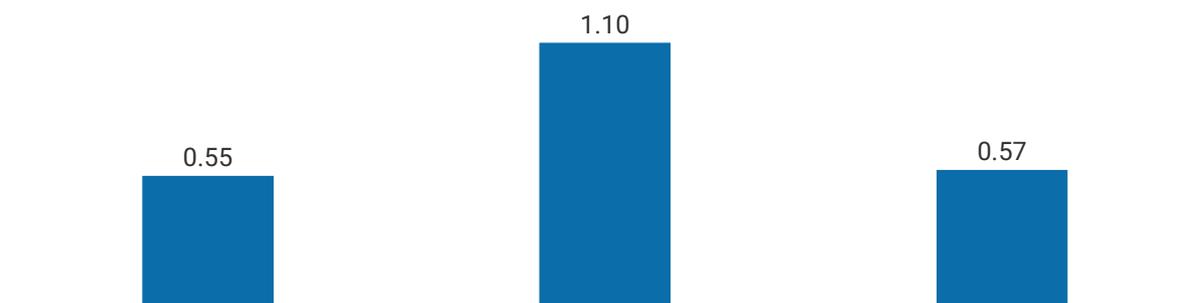


## Summary of Performance across Metrics

Integrated Score: 34.3 out of 100					
Base Rating Score: 37.8					
Financial Sustainability		Performance Excellence		External Environment	
ACS – ARR gap (cash adjusted)	9.4	35	Distribution Loss (SERC approved)	0.0	2
Days Receivable	0.0	3	Billing Efficiency	0.2	5
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	2.4	5
Adjusted Quick Ratio	9.0	10	Corporate Governance	0.0	1
Debt Service Coverage Ratio (cash adjusted)	0.0	10	Subsidy Realized (last 3 FYs)	4.0	4
Leverage Debt/EBITDA (cash adjusted)	7.0	7	Loss Takeover by State Government	3.0	3
			Government Dues (Last 3 FYs)	2.8	3
			Tariff Cycle Timelines	0.0	1
			Auto Pass Through of Fuel Costs	0.0	1
Specific Disincentives: -3.5					
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	-1.0	-4
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	-1.5	-4.5
			Tariff Independent of Subsidy	-1.0	-1
			Uncovered Revenue Gap (Current Year)	0.0	-4
			Regulatory Assets	0.0	-5

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



Fiscal Year	Highest	Median	Lowest
FY 2020	2.53	0.35	-2.24
FY 2021	2.33	0.57	-1.64
FY 2022	2.45	0.05	-1.52

ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **0.70 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **2% (stable)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	22.75	6.61	77%	96%	100%	130%
Power purchase cost	20.10	5.84	95%	84%	74%	50%
O&M expenses	1.62	0.47	38%	14%	9%	1%
Interest	1.58	0.46	19%	7%	3%	0%
Other expenses	1.42	0.41				
Gap / Surplus	-1.97	0.57	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from 1.10 in FY21 to 0.57 in FY22
  - PBT (excl. Other Subsidy) improved from (-22%) of Revenue booked in FY21 to (-12%) in FY22
  - Tariff Subsidy received remained constant at 100% of subsidy booked in FY21 and FY22. Further, the DISCOM received Other Subsidy of 9% of Revenue booked in FY22.
  - Cash adjustment due to Trade Receivables has declined from 0% of Revenue booked in FY21 to (-5%) in FY22
- AT&C losses deteriorated from 17.8% in FY21 to 22.3% in FY22 – driven majorly by decline in Collection Efficiency (from 100% in FY21 to 94.4% in FY22)

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### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap can be improved – currently at INR 0.57/ kWh
  - Negative PBT ((-3%) of Revenue booked)
  - Total Subsidy disbursement – 100% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables ((-5%) of Revenue booked)
- Days Payable may be reduced – currently at 98 days as compared to LPS norm of 45 days
- Days Receivable may be reduced – currently at 220 days (for max. score, expected less than or equal to 60 days)
- Debt Service Coverage Ratio (cash adjusted) may be improved – currently at 0.33 (for max. score, expected is greater than or equal to 1.1)

#### Performance Excellence

- Distribution losses may be reduced – current losses are higher than SERC-approved levels

#### External Environment

- Automatic pass-through of fuel costs can be implemented

#### Specific Disincentives

- Ind-AS may be complied to remove audit qualification
- Tariff and True-up Orders, Tariff Petition should be issued within the rating timelines
- Regulator can issue cost reflective tariff

# Purvanchal Vidyut Vitran Nigam Limited (PuVVNL)



Rank  
46 out of 51

Grade

## Overview of PuVVNL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	1-May-2003
Nature of operations	Distribution
Area of operations	Eastern UP including districts of Varanasi, Ghazipur, Chandauli, Jaunpur, Sant Rabidas Nagar(Bhadohi), Mirzapur, Sonbhadra, Mau, Azamgarh, Ballia, Deoria, Kushi Nagar, Gorakhpur, Maharajganj, Sant Kabir Nagar, Basti, Sidharth Nagar, Allahabad, Pratapgarh, Fatehpur and Kaushambi
Number of customers	8,409,252
% Agricultural customers	-
% C&I customers	-
Gross input energy	28,621 MU (4% change) <sup>3</sup>
Total energy sold	22,854 MU (4% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 19,898 Cr (32% change) <sup>3</sup>
Profit after tax	INR -578 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

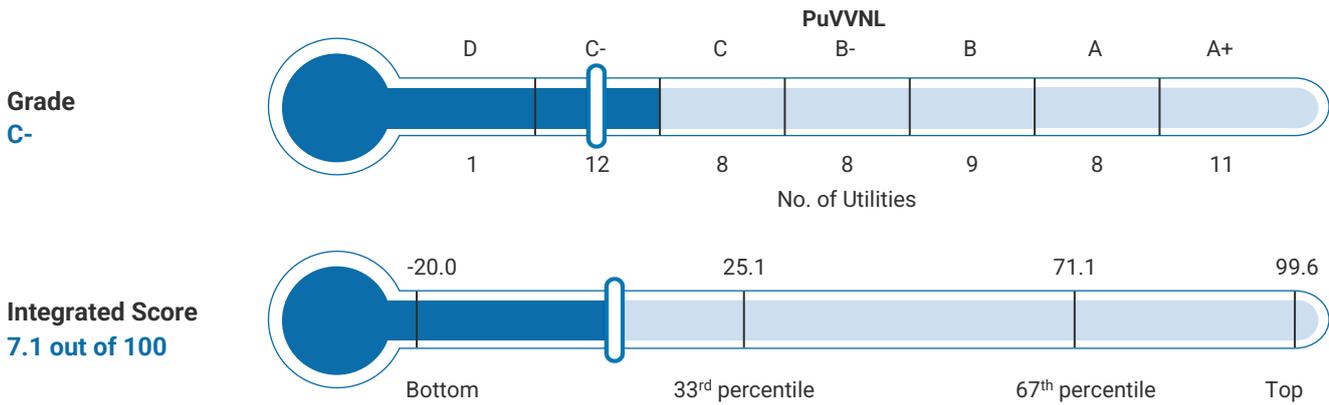
3. Compared to FY 2021.

## Key Insights

- PuVVNL score improved from 3.1 (10<sup>th</sup> Ratings) to 7.1 (11<sup>th</sup> Ratings)
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

PuVVNL achieved Rank 46 (out of 51 utilities), with Grade C- and Integrated Score of 7.1 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score



## Summary of Performance across Metrics

Integrated Score: 7.1 out of 100					
Base Rating Score: 10.6					
Financial Sustainability		Performance Excellence		External Environment	
<b>3.6</b>	75	<b>0.0</b>	13	<b>7.0</b>	12
ACS – ARR gap (cash adjusted)	0.0 35	Distribution Loss (SERC approved)	0.0 2	Subsidy Realized (last 3 FYs)	4.0 4
Days Receivable	0.0 3	Billing Efficiency	0.0 5	Loss Takeover by State Government	3.0 3
Days Payable to GenCos & TransCos	0.0 10	Collection Efficiency	0.0 5	Government Dues (Last 3 FYs)	0.0 3
Adjusted Quick Ratio	3.6 10	Corporate Governance	0.0 1	Tariff Cycle Timelines	0.0 1
Debt Service Coverage Ratio (cash adjusted)	0.0 10			Auto Pass Through of Fuel Costs	0.0 1
Leverage Debt/EBITDA (cash adjusted)	0.0 7				
Specific Disincentives: -3.5					
<b>0.0</b> -15	Auditor's Adverse Opinion	<b>-1.0</b> -4	Audit Qualifications	<b>-1.0</b> -1	Tariff Independent of Subsidy
<b>0.0</b> -15	Availability of Audited Accounts	<b>0.0</b> -3	Governance (Audit Committee, Exclusive MD & DF)	<b>0.0</b> -4	Uncovered Revenue Gap (Current Year)
<b>0.0</b> -15	Default to Banks/FIs	<b>-1.5</b> -4.5	Tariff Cycle Delays	<b>0.0</b> -5	Regulatory Assets

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric



## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from 2.00 in FY21 to 1.81 in FY22
  - PBT (excl. Other Subsidy) improved from (-29%) of Revenue booked in FY21 to (-18%) in FY22
  - Tariff Subsidy received remained constant at 100% of subsidy booked in FY21 and FY22. Further, the DISCOM received Other Subsidy of 15% of Revenue booked in FY22.
  - Cash adjustment due to Trade Receivables has declined from (-13%) of Revenue booked in FY21 to (-23%) in FY22
- AT&C losses deteriorated from 32.5% in FY21 to 40.3% in FY22 – driven majorly by decline in Collection Efficiency (from 85.1% in FY21 to 74.7% in FY22)

### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap may be improved – currently at INR 1.81/ kWh
  - Negative PBT ((-3%) of Revenue booked)
  - Total Subsidy disbursement – 100% of Subsidy booked
  - Negative cash adjustment due to Trade Receivables ((-23%) of Revenue booked)
- Days Payable may be reduced – currently at 282 days as compared to LPS norm of 45 days
- Days Receivable may be reduced – currently at 864 days (for max. score, expected less than or equal to 60 days)
- Debt Service Coverage Ratio (Cash Adjusted) may be improved , currently at 0.26 (for max. score, expected greater than or equal to 1.1)
- Leverage (Cash Adjusted) may be improved, currently at 22.27 (for max. score, expected greater than 0 upto 5)
- Debt levels can be reduced – currently Debt as % of Revenue booked is significantly high at 143%, as compared to National median of 50%

#### Performance Excellence

- Billing Efficiency can be improved – currently at 79.9% (for max. score, expected is 92%+)
- Collection Efficiency can be improved – currently at 74.7% (for max. score, expected is 99.5%+)
- Distribution losses may be reduced – current losses are higher than SERC-approved levels

#### External Environment

- Automatic pass-through of fuel costs can be implemented

#### Specific Disincentives

- Ind-AS can be complied to remove audit qualification
- Tariff and True-up Orders, Tariff Petition should be issued within the rating timelines
- Regulator should issue cost reflective tariff

# Uttarakhand Power Corporation Limited (UPCL)



## Overview of UPCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	12-Feb-2001
Nature of operations	Distribution
Area of operations	State of Uttarakhand
Number of customers	2,750,872
% Agricultural customers	1.62%
% C&I customers	11.14%
Gross input energy	15,253 MU (8% change) <sup>3</sup>
Total energy sold	12,521 MU (7% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 7,469 Cr (14% change) <sup>3</sup>
Profit after tax	INR -21 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

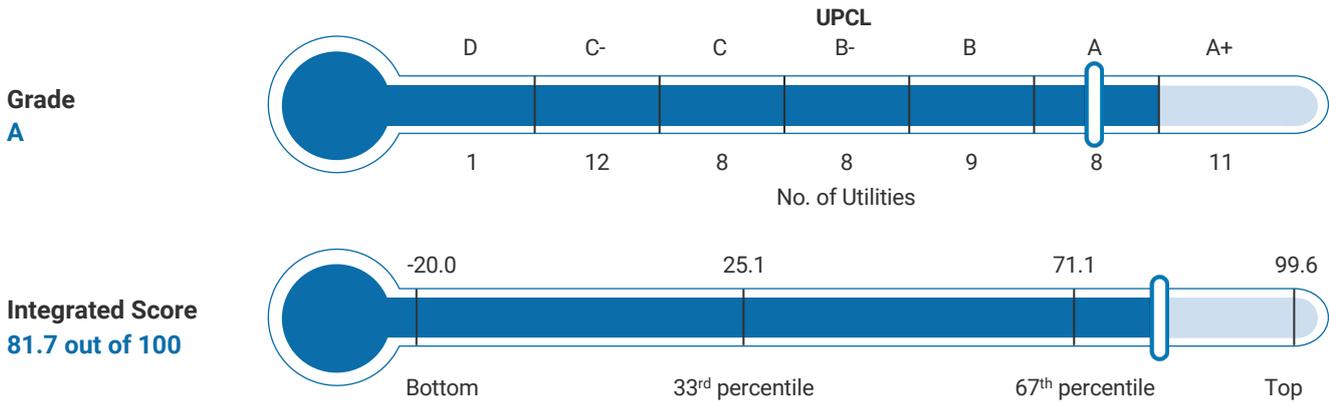
3. Compared to FY 2021.

## Key Insights

- UPCL score improved significantly from 55.6 (10<sup>th</sup> Ratings) to 81.7 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR gap, DSCR, Loss Takeover by State Government metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

UPCL achieved Rank 12 (out of 51 utilities), with Grade A and Integrated Score of 81.7 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score



## Summary of Performance across Metrics

Integrated Score: 81.7 out of 100									
Base Rating Score: 84.0									
Financial Sustainability			Performance Excellence			External Environment			
ACS – ARR gap (cash adjusted)	65.0	75	Distribution Loss (SERC approved)	8.8	13	Subsidy Realized (last 3 FYs)	10.2	12	
Days Receivable	35.0	35	Billing Efficiency	1.7	2	Loss Takeover by State Government	4.0	4	
Days Payable to GenCos & TransCos	3.0	3	Collection Efficiency	1.6	5	Government Dues (Last 3 FYs)	3.0	3	
Adjusted Quick Ratio	10.0	10	Corporate Governance	4.5	5	Tariff Cycle Timelines	1.2	3	
Debt Service Coverage Ratio (cash adjusted)	0.0	10		1.0	1	Auto Pass Through of Fuel Costs	1.0	1	
Leverage Debt/EBITDA (cash adjusted)	10.0	10							
	7.0	7							
Specific Disincentives: -2.3									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	-1.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	-1.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	-0.3	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric



## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from 0.04 in FY21 to (-0.49) in FY22
  - PBT (excl. Other Subsidy) improved from (-2%) of Revenue booked in FY21 to 0% in FY22
  - Cash adjustment due to Trade Receivables improved from 1% of Revenue booked in FY21 to 10% in FY22
- AT&C losses improved from 15.4% in FY21 to 14.1% in FY22 – driven majorly by improvement in Collection Efficiency (from 98.3% in FY21 to 100% in FY22)

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### Key Strengths

#### Financial Sustainability

- Amongst the top 20%ile performers in ACS-ARR Gap (cash adjusted)
  - Positive PBT
  - Positive cash adjustment due to Trade Receivables (10% of Revenue booked)
- Amongst the top 20%ile performers in Days Receivable – currently at 17 days as against National median of ~71 days
- Amongst the top 10%ile performers in Days Payable to Gencos and Trancos – currently at 24 days as compared to LPS norm of ~45 days
- Healthy Cash adjusted Leverage, currently at 1.09
- Healthy Debt Service Coverage Ratio currently at 3.67
- Healthy Debt levels – currently Debt as % of Revenue booked is ~19%, as compared to National median of ~50%

#### Performance Excellence

- Collection Efficiency currently at 100%

#### External Environment

- Discom implements automatic pass-through of fuel costs

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### Key Improvement Areas

#### Financial Sustainability

- Adjusted Quick Ratio can be improved, currently at 0.17 (for max. score, expected is 1.00)

#### External Environment

- Government dues can be lowered – currently 30% of total amount billed to Government in the past 3 years is due

#### Specific Disincentives

- Ind-AS can be adopted to remove Audit Qualification
- Managing Director should be exclusive
- Tariff petition should be filed within the rating timelines

# West Bengal State Electricity Distribution Company Limited (WBSEDCL)



Rank  
28 out of 51

Grade

## Overview of WBSEDCL<sup>1</sup>

Ownership	State Govt. PSU
Date of incorporation	16-Feb-2007
Nature of operations	Distribution
Area of operations	State of West Bengal excluding some districts served by CESC and IPCL
Number of customers	21,499,055
% Agricultural customers	1.61%
% C&I customers	9.95%
Gross input energy	51,253 MU (16% change) <sup>3</sup>
Total energy sold	43,054 MU (25% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 27,795 Cr (22% change) <sup>3</sup>
Profit after tax	INR -205 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

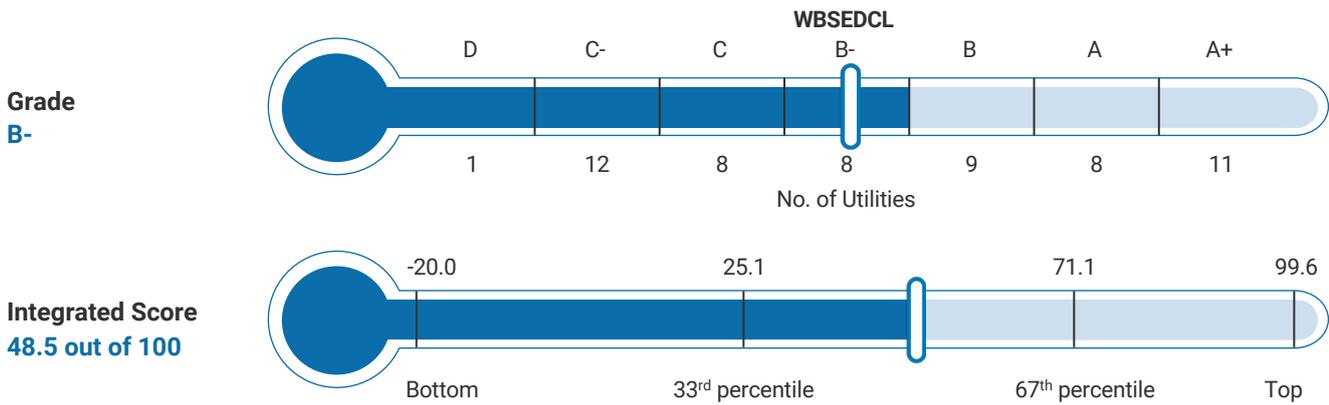
3. Compared to FY 2021.

## Key Insights

- WBSEDCL score improved significantly from 19.4 (10<sup>th</sup> Ratings) to 48.5 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR gap metric in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

WBSEDCL achieved Rank 28 (out of 51 utilities), with Grade B- and Integrated Score of 48.5 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score



## Summary of Performance across Metrics

Integrated Score: 48.5 out of 100									
Base Rating Score: 52.5									
Financial Sustainability			Performance Excellence			External Environment			
37.7 75			8.1 13			6.6 12			
ACS – ARR gap (cash adjusted)	28.3	35	Distribution Loss (SERC approved)	2.0	2	Subsidy Realized (last 3 FYs)	3.7	4	
Days Receivable	2.8	3	Billing Efficiency	0.9	5	Loss Takeover by State Government	0.0	3	
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	4.5	5	Government Dues (Last 3 FYs)	2.0	3	
Adjusted Quick Ratio	0.0	10	Corporate Governance	0.8	1	Tariff Cycle Timelines	0.0	1	
Debt Service Coverage Ratio (cash adjusted)	0.0	10				Auto Pass Through of Fuel Costs	1.0	1	
Leverage Debt/EBITDA (cash adjusted)	6.6	7							
Specific Disincentives: -4.0									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	-1.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	-1.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	-2.0	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric



## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from 0.92 in FY21 to (-0.22) in FY22. Major recasting in FY21
  - PBT (excl. Other Subsidy) improved significantly from (-19%) of Revenue booked in FY21 to 4% in FY22
  - Tariff Subsidy received improved from 99% of subsidy booked in FY21 to 100% in FY22
- AT&C losses improved from 21.3% in FY21 to 16.7% in FY22 – driven majorly by improvement in Billing Efficiency (from 79.0% in FY21 to 84.8% in FY22)

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### Key Strengths

#### Financial Sustainability

- Amongst the top 33%ile performers in ACS-ARR Gap (cash adjusted)
  - Negative PBT ((-1%) of Revenue booked)
  - High Total Subsidy disbursement – 100% of Subsidy booked
  - Positive cash adjustment due to Trade Receivables
- Healthy Cash adjusted Leverage, currently at 3.76

#### Performance Excellence

- Achieved SERC - approved Distribution loss target

#### External Environment

- Implements automatic pass-through of fuel costs

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### Key Improvement Areas

#### Financial Sustainability

- Days Payable may be reduced – currently at 147 days as compared to LPS norm of 45 days
- Adjusted Quick Ratio can be improved, currently at 0.25 (for max. score, expected is 1.00)

#### External Environment

- Require regulatory support for issuance of true-up order for FY21
- Govt. support required for taking over of Discom losses

#### Specific Disincentives

- Employee Liabilities can be addressed to remove audit qualification
- Managing Director and Director Finance should be given exclusive charge
- Tariff and True-up Orders should be issued within the rating timelines

## B. Private discoms

### BSES Rajdhani Power Limited (BRPL)



#### Overview of BRPL<sup>1</sup>

Ownership	Public Private Company
Date of incorporation	4-Jul-2001
Nature of operations	Distribution
Area of operations	22 divisions across South and West Delhi, including Alaknanda, Dwarka, Hauz Khas, Jaffarpur, JanakPuri, Khanpur, Mundka, Najafgarh, Nangloi, Nehru Place, New Friends Colony, Nizamuddin, Palam, Punjabi Bagh, R.K. Puram, Saket, SaritaVihar, Tagore Garden, Vasant Kunj, VikasPuri, Uttam Nagar & Mohan Garden
Number of customers	2,868,391
% Agricultural customers	0.21%
% C&I customers	12.48%
Gross input energy	13,571 MU (6% change) <sup>3</sup>
Total energy sold	12,050 MU (5% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 10,276 Cr (-6% change) <sup>3</sup>
Profit after tax	INR 385 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

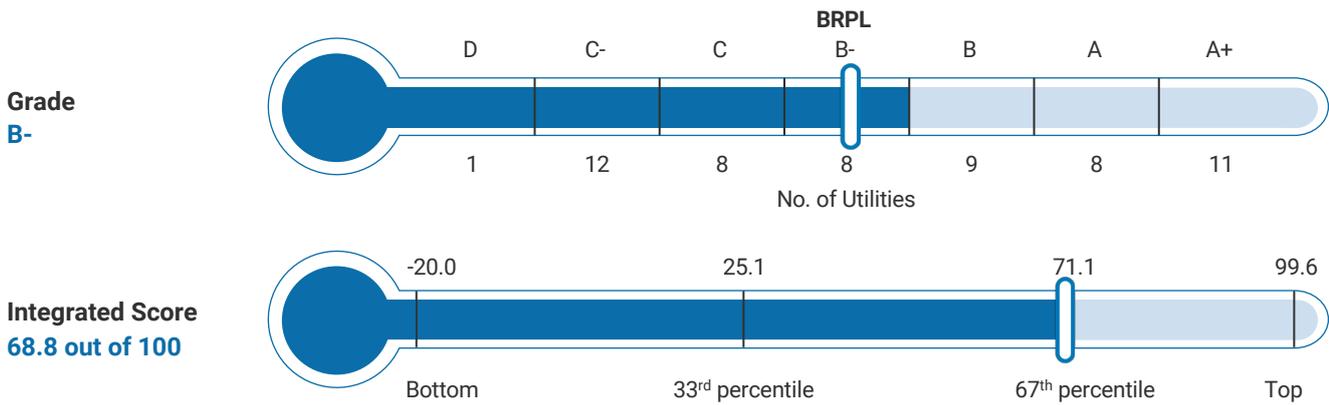
3. Compared to FY 2021.

#### Key Insights

- BRPL score improved significantly from 39.9 (10<sup>th</sup> Ratings) to 68.8 (11<sup>th</sup> Ratings). Grade over-ride due to regulatory asset disincentive.
- Major improvement in ACR-ARR Gap, DSCR metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

BRPL achieved Rank 26 (out of 51 utilities), with Grade B- and Integrated Score of 68.8 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score



## Summary of Performance across Metrics

Integrated Score: 68.8 out of 100									
Base Rating Score: 77.3									
Financial Sustainability			Performance Excellence			External Environment			
55.0 75			12.6 13			9.7 12			
ACS – ARR gap (cash adjusted)	35.0	35	Distribution Loss (SERC approved)	2.0	2	Subsidy Realized (last 3 FYs)	2.8	4	
Days Receivable	3.0	3	Billing Efficiency	5.0	5	Loss Takeover by State Government	3.0	3	
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	4.6	5	Government Dues (Last 3 FYs)	3.0	3	
Adjusted Quick Ratio	0.0	10	Corporate Governance	1.0	1	Tariff Cycle Timelines	0.0	1	
Debt Service Coverage Ratio (cash adjusted)	10.0	10				Auto Pass Through of Fuel Costs	1.0	1	
Leverage Debt/EBITDA (cash adjusted)	7.0	7							
Specific Disincentives: -8.5									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	0.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	-3.5	-4.5	Regulatory Assets	-5.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric



## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated from (-0.69) in FY21 to (-0.26) in FY22. FY21 accounts have been recasted
    - PBT (excl. Other Subsidy) declined from 10% of Revenue booked in FY21 to 5% in FY22
    - Tariff Subsidy received improved from 91% of subsidy booked in FY21 to 94% in FY22
  - AT&C losses improved marginally from 9.6% in FY21 to 8.9% in FY22
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 33<sup>rd</sup>ile performers in ACS-ARR Gap (cash adjusted)
  - Positive PBT (4% of Revenue booked)
  - Total Subsidy disbursement – 94% of Subsidy booked
  - Marginally negative cash adjustment due to Trade Receivables
- Amongst the top 20<sup>th</sup>ile performers in Days Receivable – currently at 19 days as against National median of ~71 days
- Healthy Debt Service Coverage Ratio (cash adjusted), currently at 1.46
- Healthy Cash adjusted Leverage, currently at 0.92
- Healthy Debt levels – currently Debt as % of Revenue booked is 16%, as compared to National median of ~50%

#### Performance Excellence

- Achieved SERC - approved Distribution loss target
- Amongst the top 20<sup>th</sup>ile performers in Billing Efficiency – currently at 92.2%

#### External Environment

- Discom implements automatic pass-through of fuel costs
- 

### Key Improvement Areas

#### Financial Sustainability

- Days Payable may be reduced – currently at 375 days as compared to LPS norm of 45 days
- Adjusted Quick Ratio can be improved, currently at 0.19 (for max. score, expected is 1.00)

#### External Environment

- Require regulatory support for issuance of Tariff Order for FY23 and True-up Order for FY21

#### Specific Disincentives

- Tariff Order and True-up Order, Tariff Petition should be issued within the rating timelines
- Pace of Regulatory Assets liquidation needs to be improved – Regulatory Assets increased by 21% since FY21 (for max. score, pace of liquidation should be 28%+)

# BSES Yamuna Power Limited (BYPL)



## Overview of BYPL<sup>1</sup>

Ownership	Public Private Company
Date of incorporation	4-Jul-2001
Nature of operations	Distribution
Area of operations	14 divisions across Central & East Delhi including Chandni Chowk, Darya Ganj, Dilshad Garden, Jhilmil, Karawal Nagar, Krishna Nagar, Laxmi Nagar, Mayur Vihar, Vasundhara Enclave, Nandnagri, Pahar Ganj, Patel Nagar, Shankar Road and Yamuna Vihar
Number of customers	1,829,109
% Agricultural customers	0.00%
% C&I customers	21.91%
Gross input energy	8,103 MU (6% change) <sup>3</sup>
Total energy sold	7,214 MU (6% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 5,605 Cr (-10% change) <sup>3</sup>
Profit after tax	INR 223 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

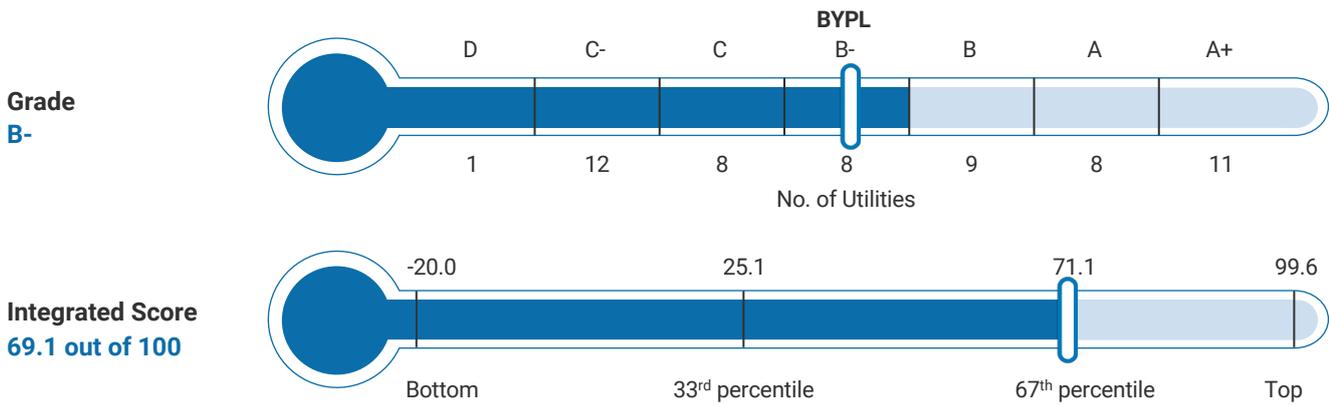
3. Compared to FY 2021.

## Key Insights

- BYPL score improved significantly from 41.8 (10<sup>th</sup> Ratings) to 69.1 (11<sup>th</sup> Ratings). Grade over-ride due to regulatory asset disincentive.
- Major improvement in ACR-ARR Gap, DSCR metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from audited accounts.

## Performance in 11<sup>th</sup> Annual Rating Exercise

BYPL achieved Rank 25 (out of 51 utilities), with Grade B- and Integrated Score of 69.1 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

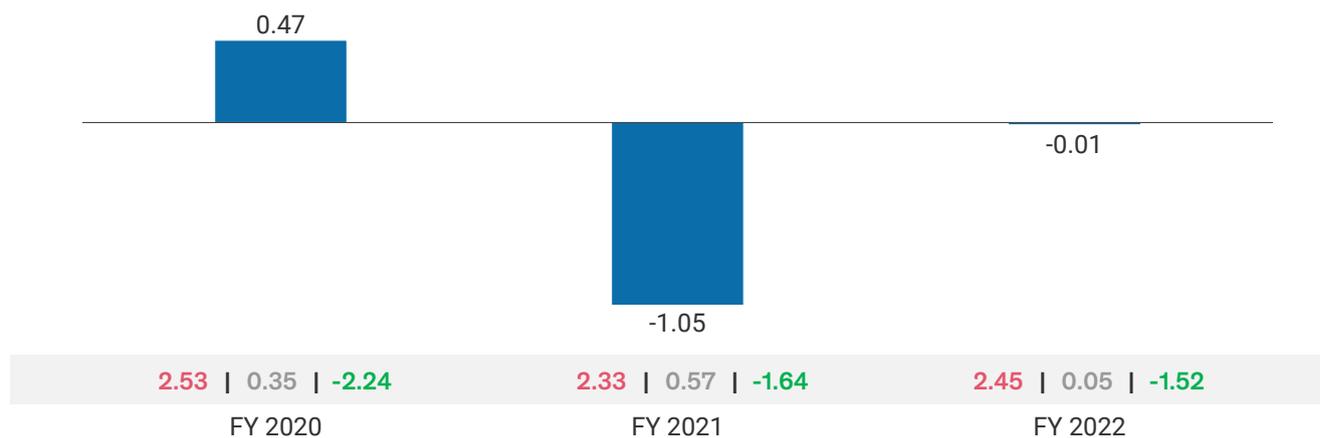


## Summary of Performance across Metrics

Integrated Score: 69.1 out of 100									
Base Rating Score: 77.6									
Financial Sustainability			Performance Excellence			External Environment			
55.0 75			12.0 13			10.6 12			
ACS – ARR gap (cash adjusted)	35.0	35	Distribution Loss (SERC approved)	2.0	2	Subsidy Realized (last 3 FYs)	3.6	4	
Days Receivable	3.0	3	Billing Efficiency	4.0	5	Loss Takeover by State Government	3.0	3	
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	5.0	5	Government Dues (Last 3 FYs)	3.0	3	
Adjusted Quick Ratio	0.0	10	Corporate Governance	1.0	1	Tariff Cycle Timelines	0.0	1	
Debt Service Coverage Ratio (cash adjusted)	10.0	10				Auto Pass Through of Fuel Costs	1.0	1	
Leverage Debt/EBITDA (cash adjusted)	7.0	7							
Specific Disincentives: -8.5									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	0.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	-3.5	-4.5	Regulatory Assets	-5.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **-0.20 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-142% (improving)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	5.61	6.93	77%	96%	100%	130%
Power purchase cost	3.80	4.68	95%	84%	74%	50%
O&M expenses	0.71	0.87	38%	14%	9%	1%
Interest	0.87	1.07	19%	7%	3%	0%
Other expenses	0.23	0.28				
Gap / Surplus	0.01	-0.01	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated from (-1.05) in FY21 to (-0.01) in FY22. FY21 accounts has been recasted
    - PBT (excl. Other Subsidy) declined from 13% of Revenue booked in FY21 to 0% in FY22
    - Tariff Subsidy received improved from 97% of subsidy booked in FY21 to 99% in FY22.
  - AT&C losses improved from 9.4% in FY21 to 8% in FY22 – driven by improvement in Collection Efficiency (from 99.1% in FY21 to 100% in FY22) and Billing Efficiency (from 91.4% in FY21 to 92% in FY22)
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 20%ile performers in Days Receivable – currently at 20 days as against National median of ~71 days
- Healthy Cash adjusted Leverage, currently at 1.26
- Healthy Debt Coverage Service Ratio, currently at 1.11
- Healthy Debt levels – currently Debt as % of Revenue booked is 25%, as compared to National median of ~50%

#### Performance Excellence

- Achieved SERC - approved Distribution loss target
- Collection Efficiency currently at 100%
- Amongst the top 25%ile performers in Billing Efficiency – currently at 92%

#### External Environment

- Discom implements automatic pass-through of fuel costs
- 

### Key Improvement Areas

#### Financial Sustainability

- Days Payable may be reduced – currently at 645 days as compared to LPS norm of 45 days
- Adjusted Quick Ratio can be improved, currently at 0.10 (for max. score, expected is 1.00)

#### External Environment

- Require regulatory support for issuance of tariff order for FY23 and true-up order for FY21

#### Specific Disincentives

- Tariff and True-up Orders, Tariff Petition should be issued within the rating timelines
- Pace of Regulatory Assets liquidation needs to be improved – Regulatory Assets increased by 36% since FY21 (for max. score, pace of liquidation should be 28%+)

# Tata Power Delhi Distribution Limited (TPDDL)



## Overview of TPDDL<sup>1</sup>

Ownership	Private Public Utility
Date of incorporation	4-Jul-2001
Nature of operations	Distribution
Area of operations	North and Northwest parts of Delhi
Number of customers	1,885,578
% Agricultural customers	0.22%
% C&I customers	14.17%
Gross input energy	11,737 MU (16% change) <sup>3</sup>
Total energy sold	10,593 MU (16% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 7,809 Cr (10% change) <sup>3</sup>
Profit after tax	INR 439 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

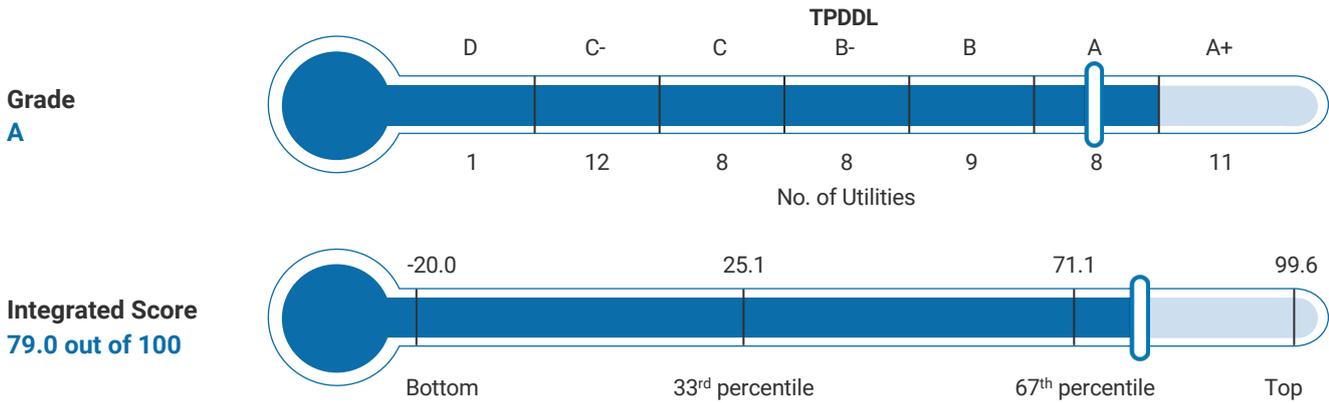
3. Compared to FY 2021.

## Key Insights

- TPDDL score decline from 81.5 (10<sup>th</sup> Ratings) to 79.0 (11<sup>th</sup> Ratings)
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts.

## Performance in 11<sup>th</sup> Annual Rating Exercise

TPDDL achieved Rank 13 (out of 51 utilities), with Grade A and Integrated Score of 79.0 out of 100. Further, it exhibited a Stable Trajectory w.r.t. Integrated Score



## Summary of Performance across Metrics

Integrated Score: 79.0 out of 100									
Base Rating Score: 86.3									
Financial Sustainability			Performance Excellence			External Environment			
ACS – ARR gap (cash adjusted)	35.0	35	Distribution Loss (SERC approved)	2.0	2	Subsidy Realized (last 3 FYs)	3.6	4	
Days Receivable	3.0	3	Billing Efficiency	5.0	5	Loss Takeover by State Government	3.0	3	
Days Payable to GenCos & TransCos	8.0	10	Collection Efficiency	5.0	5	Government Dues (Last 3 FYs)	3.0	3	
Adjusted Quick Ratio	0.0	10	Corporate Governance	0.8	1	Tariff Cycle Timelines	0.0	1	
Debt Service Coverage Ratio (cash adjusted)	10.0	10				Auto Pass Through of Fuel Costs	1.0	1	
Leverage Debt/EBITDA (cash adjusted)	7.0	7							
Specific Disincentives: -7.3									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	0.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	-3.5	-4.5	Regulatory Assets	-3.8	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric



## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from (-0.23) in FY21 to (-0.35) in FY22
    - PBT (excl. Other Subsidy) improved marginally from 3.8% of Revenue booked in FY21 to 3.9% in FY22
    - Tariff Subsidy received improved from 91% of subsidy booked in FY21 to 104% in FY22.
  - AT&C losses improved marginally from 7.7% in FY21 to 7.1% in FY22
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 25%ile performers in ACS-ARR Gap (cash adjusted)
  - Positive PBT (8% of Revenue booked)
  - High Total Subsidy disbursement – 104% of Subsidy booked
  - Positive cash adjustment due to Trade Receivables
- Amongst the top 10%ile performers in Days Receivable – currently at 10 days as against National median of ~71 days
- Healthy Cash adjusted Leverage, currently at 2.59
- Healthy Debt Service Coverage Ratio, currently at 1.15

#### Performance Excellence

- Collection Efficiency currently at 100%
- Amongst the top 20%ile performers in Billing Efficiency, currently at 92.9%

#### External Environment

- Discom implements automatic pass-through of fuel costs
- 

### Key Improvement Areas

#### Financial Sustainability

- Adjusted Quick Ratio can be improved, currently at 0.33 (for max. score, expected is 1.00)

#### External Environment

- Require regulatory support for issuance of tariff order for FY23, true-up order for FY21

#### Specific Disincentives

- Tariff and True-up Orders, Tariff Petition should be issued within the rating timelines
- Pace of Regulatory Assets liquidation needs to be improved – 6.73% liquidated since FY21 (for max. score, pace of liquidation should be 28%+)

# Adani Electricity Mumbai Limited (AEML)



## Overview of AEML<sup>1</sup>

Ownership	Privately Owned
Date of incorporation	18-Sep-2008
Nature of operations	Distribution
Area of operations	7 Divisions of Mumbai City - Mira Bhayandar, Borivali, Malad, Andheri, Bandra, Powai & Chembur
Number of customers	3,072,704
% Agricultural customers	0.00%
% C&I customers	14.75%
Gross input energy	8,812 MU (9% change) <sup>3</sup>
Total energy sold	7,956 MU (11% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 7,116 Cr (32% change) <sup>3</sup>
Profit after tax	INR 1,080 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

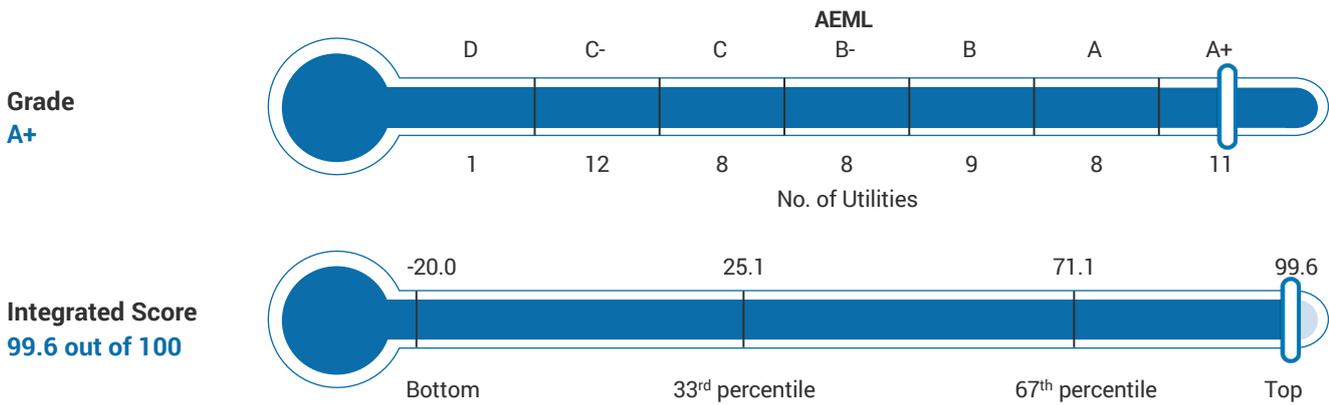
3. Compared to FY 2021.

## Key Insights

- AEML score improved from 93.4 (10<sup>th</sup> Ratings) to 99.6 (11<sup>th</sup> Ratings).
- Major improvement in Adjusted Quick Ratio metric in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts .

## Performance in 11<sup>th</sup> Annual Rating Exercise

AEML achieved Rank 1 (out of 51 utilities), with Grade A+ and Integrated Score of 99.6 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

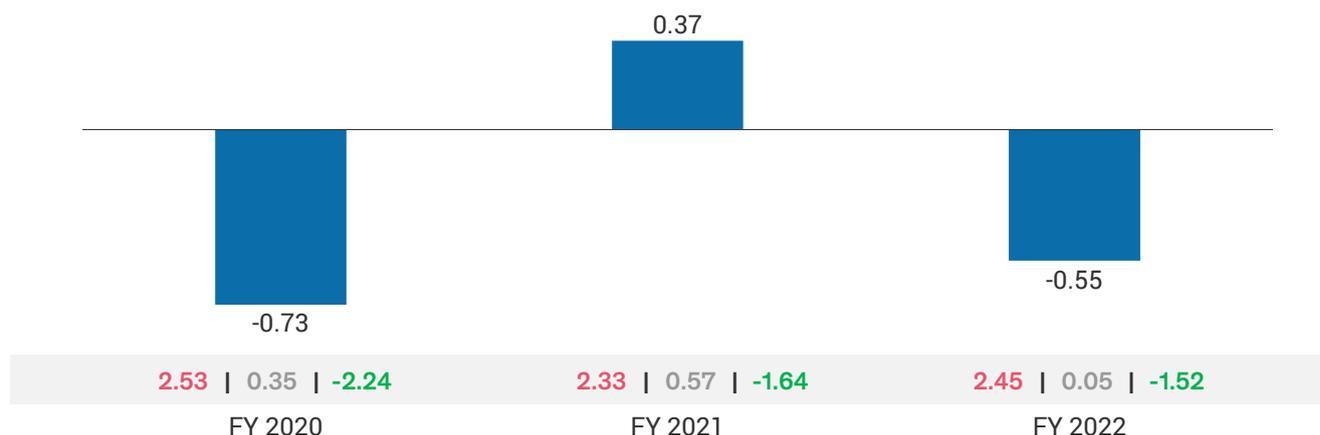


## Summary of Performance across Metrics

Integrated Score: 99.6 out of 100					
Base Rating Score: 99.6					
Financial Sustainability		Performance Excellence		External Environment	
75.0	75	12.8	13	11.9	12
ACS – ARR gap (cash adjusted)	35.0	35	Distribution Loss (SERC approved)	2.0	2
Days Receivable	3.0	3	Billing Efficiency	5.0	5
Days Payable to GenCos & TransCos	10.0	10	Collection Efficiency	5.0	5
Adjusted Quick Ratio	10.0	10	Corporate Governance	0.8	1
Debt Service Coverage Ratio (cash adjusted)	10.0	10	Subsidy Realized (last 3 FYs)	4.0	4
Leverage Debt/EBITDA (cash adjusted)	7.0	7	Loss Takeover by State Government	3.0	3
			Government Dues (Last 3 FYs)	2.9	3
			Tariff Cycle Timelines	1.0	1
			Auto Pass Through of Fuel Costs	1.0	1
Specific Disincentives: 0.0					
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	0.0	-4
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	0.0	-4.5
			Tariff Independent of Subsidy	0.0	-1
			Uncovered Revenue Gap (Current Year)	0.0	-4
			Regulatory Assets	0.0	-5

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **-0.35 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **13%**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	7.20	8.17	77%	96%	100% 101%	130%
Power purchase cost	4.73	5.36	95%	84%	74% 66%	50%
O&M expenses	1.38	1.56	38%	14% 19%	9%	1%
Interest	0.26	0.30	19%	7%	3% 4%	0%
Other expenses	0.35	0.40				
Gap / Surplus	0.48	-0.55	2.45	0.36	-0.12 -0.55	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved significantly from 0.37 in FY21 to (-0.55) in FY22. Major recasting in FY21 accounts
    - PBT (excl. Other Subsidy) improved significantly from (-7%) of Revenue booked in FY21 to 6% in FY22
  - AT&C losses improved from 8.9% in FY21 to 6.7% in FY22 – driven majorly by improvement in Billing efficiency (from 91.7% in FY21 to 93.3% in FY22).
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 20%ile performers in ACS-ARR Gap (cash adjusted)
  - Positive PBT (15% of Revenue booked)
  - Positive cash adjustment due to Trade Receivables
- Amongst the top 20%ile performers in Days Payable to Gencos and Transcos– currently at 42 days as compared to LPS norm of 45 days
- Amongst the top 20%ile performers in Days Receivable – currently at 21 days as against National median of 71 days
- Healthy Adjusted Quick Ratio, currently at 1.46
- Healthy Debt Service Coverage Ratio, currently at 4.16
- Healthy Cash adjusted Leverage, currently at 2.50

#### Performance Excellence

- Achieved SERC - approved Distribution loss target
- Amongst the top 20%ile performers in Billing Efficiency currently at 93.3%
- Collection Efficiency currently at 100%

#### External Environment

- Discom implements automatic pass-through of fuel costs

# Tata Power Limited – Mumbai (TPML)



## Overview of TPML<sup>1</sup>

Ownership	Private Limited Company
Date of incorporation	18-Sep-1919
Nature of operations	Generation, Transmission, and Distribution
Area of operations	Parts of Mumbai city and Mumbai suburban areas
Number of customers	742,099
% Agricultural customers	0.00%
% C&I customers	5.81%
Gross input energy	4,925 MU (14% change) <sup>3</sup>
Total energy sold	4,730 MU (13% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 3,478 Cr (37% change) <sup>3</sup>
Profit after tax	INR 148 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

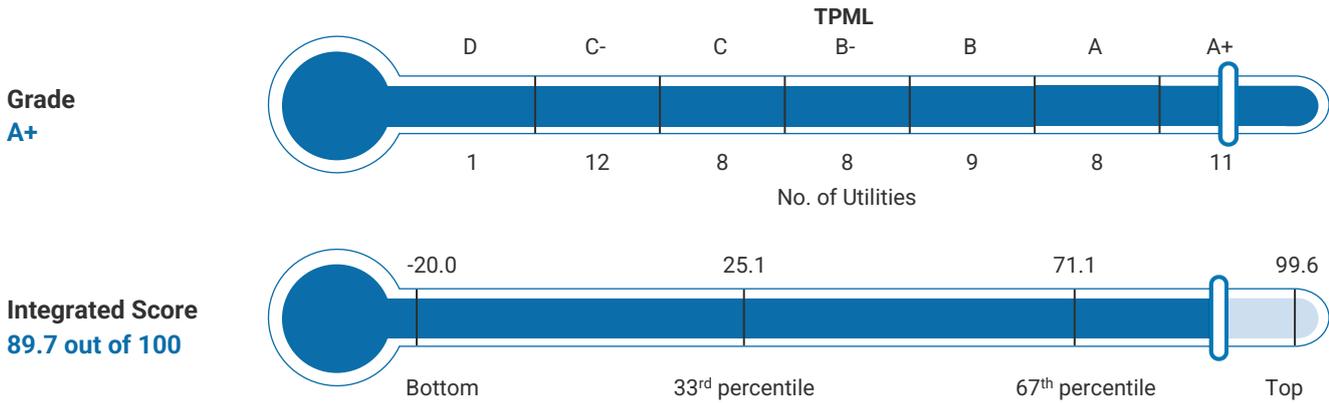
3. Compared to FY 2021.

## Key Insights

- TPML score improved from 88.0 (10<sup>th</sup> Ratings) to 89.7 (11<sup>th</sup> Ratings).
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

TPML achieved Rank 8 (out of 51 utilities), with Grade A+ and Integrated Score of 89.7 out of 100. Further, it exhibited a Stable Trajectory w.r.t. Integrated Score

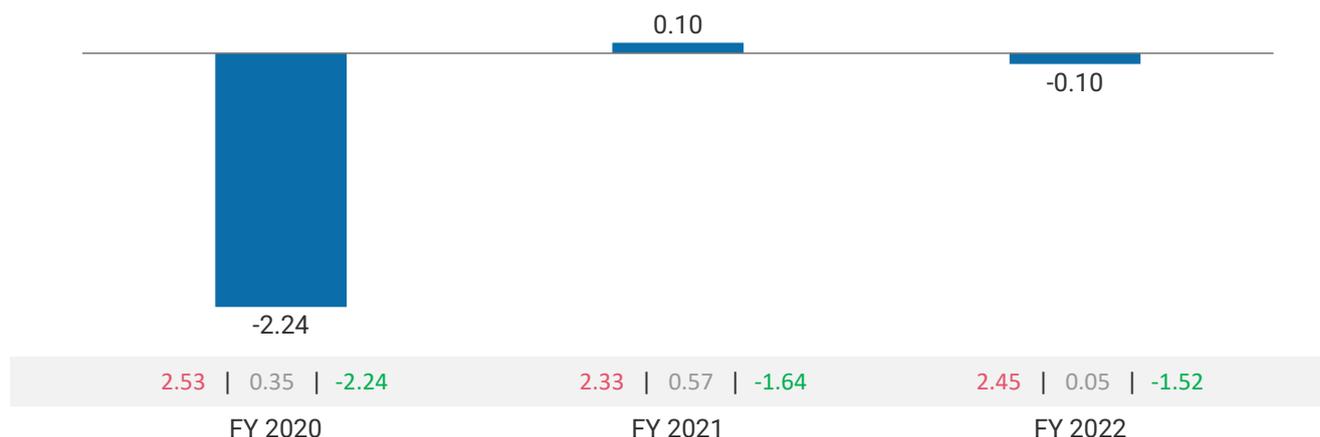


## Summary of Performance across Metrics

Integrated Score: 89.7 out of 100									
Base Rating Score: 89.7									
Financial Sustainability			Performance Excellence			External Environment			
ACS – ARR gap (cash adjusted)	35.0	35	Distribution Loss (SERC approved)	2.0	2	Subsidy Realized (last 3 FYs)	4.0	4	
Days Receivable	3.0	3	Billing Efficiency	5.0	5	Loss Takeover by State Government	3.0	3	
Days Payable to GenCos & TransCos	10.0	10	Collection Efficiency	4.9	5	Government Dues (Last 3 FYs)	2.8	3	
Adjusted Quick Ratio	0.0	10	Corporate Governance	1.0	1	Tariff Cycle Timelines	1.0	1	
Debt Service Coverage Ratio (cash adjusted)	10.0	10				Auto Pass Through of Fuel Costs	1.0	1	
Leverage Debt/EBITDA (cash adjusted)	7.0	7							
Specific Disincentives: 0.0									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	0.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	0.0	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **-0.37 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **79% (deteriorating)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	3.44	6.98	77%	96%	100%	130%
Power purchase cost	2.90	5.89	95%	84%	74%	50%
O&M expenses	0.24	0.48	38%	14%	9%	1%
Interest	0.09	0.18	19%	7%	3%	0%
Other expenses	0.16	0.32				
Gap / Surplus	0.05	-0.10	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from 0.10 in FY21 to (-0.10) in FY22
    - PBT (excl. Other Subsidy) improved from (-4%) of Revenue booked in FY21 to 3% in FY22
    - Cash adjustment due to Trade Receivables declined from 2% of Revenue booked in FY21 to (-1%) in FY22
  - AT&C losses deteriorated from 0.2% in FY21 to 2.1% in FY22 – driven majorly by decline in Collection Efficiency (from 100% in FY21 to 98.7% in FY22)
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 33%ile performers in ACS-ARR Gap (cash adjusted)
  - Positive PBT (5% of Revenue booked)
  - Negative cash adjustment due to Trade Receivables ((-1%) of Revenue booked)
- Amongst the top 20%ile performers in Days Payable to Gencos and Transcos– currently at 32 days as compared to LPS norm of 45 days
- Amongst the top 25%ile performers in Days Receivable – currently at 32 days as against National median of 71 days
- Healthy Debt Service Coverage ratio, currently at 1.55
- Healthy Cash adjusted Leverage, currently at 3.49

#### Performance Excellence

- Amongst the top 10%ile performers in Billing Efficiency currently at 99.2%
- Achieved SERC - approved Distribution loss target

#### External Environment

- Discom implements automatic pass-through of fuel costs

# TP Central Odisha Distribution Limited (TPCODL)



## Overview of TPCODL<sup>1</sup>

Ownership	Private Public Utility
Date of incorporation	6-Apr-2020
Nature of operations	Distribution
Area of operations	State of Odisha in 4 circles namely Cuttack, Khordha, Paradeep and Dhenekal
Number of customers	2,757,804
% Agricultural customers	0.69%
% C&I customers	7.59%
Gross input energy	8,814 MU (5% change) <sup>3</sup>
Total energy sold	6,733 MU (9% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 4,202 Cr (41% change) <sup>3</sup>
Profit after tax	INR 29 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

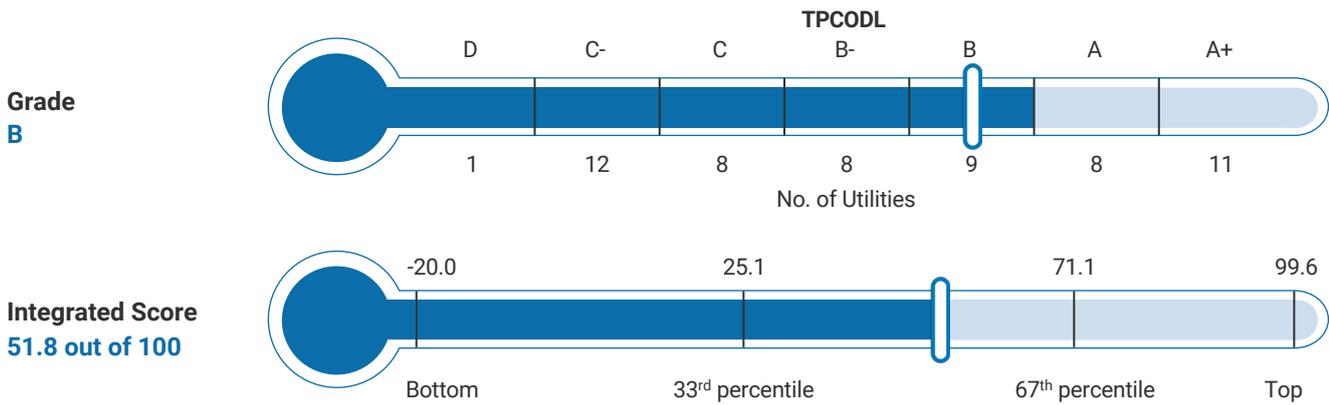
3. Compared to FY 2021.

## Key Insights

- TPCODL score declined from 64.8 (10<sup>th</sup> Ratings) to 51.8 (11<sup>th</sup> Ratings).
- Major decline in ACR-ARR gap, Collection Efficiency metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

TPCODL achieved Rank NA (out of 51 utilities), with Grade B and Integrated Score of 51.8 out of 100. Further, it exhibited a Declining Trajectory w.r.t. Integrated Score



## Summary of Performance across Metrics

Integrated Score: 51.8 out of 100					
Base Rating Score: 52.8					
Financial Sustainability		Performance Excellence		External Environment	
<b>38.8</b>	75	<b>3.3</b>	13	<b>10.6</b>	12
ACS – ARR gap (cash adjusted)	19.8	35	Distribution Loss (SERC approved)	1.7	2
Days Receivable	3.0	3	Billing Efficiency	0.0	5
Days Payable to GenCos & TransCos	8.0	10	Collection Efficiency	0.6	5
Adjusted Quick Ratio	8.0	10	Corporate Governance	1.0	1
Debt Service Coverage Ratio (cash adjusted)	0.0	10	Subsidy Realized (last 3 FYs)	4.0	4
Leverage Debt/EBITDA (cash adjusted)	0.0	7	Loss Takeover by State Government	3.0	3
			Government Dues (Last 3 FYs)	2.6	3
			Tariff Cycle Timelines	1.0	1
			Auto Pass Through of Fuel Costs	0.0	1
Specific Disincentives: -1.0					
<b>0.0</b>	-15	Auditor's Adverse Opinion	<b>-1.0</b>	-4	Audit Qualifications
<b>0.0</b>	-15	Availability of Audited Accounts	<b>0.0</b>	-3	Governance (Audit Committee, Exclusive MD & DF)
<b>0.0</b>	-15	Default to Banks/FIs	<b>0.0</b>	-4.5	Tariff Cycle Delays
<b>0.0</b>	-1	Tariff Independent of Subsidy	<b>0.0</b>	-1	
<b>0.0</b>	-4	Uncovered Revenue Gap (Current Year)	<b>0.0</b>	-4	
<b>0.0</b>	-5	Regulatory Assets	<b>0.0</b>	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric



## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated from 0.07 in FY21 to 0.46 in FY22. Minor recasting in FY21 accounts
  - PBT (excl. Other Subsidy) improved from (-2%) of Revenue booked in FY21 to 3% in FY22
  - Cash adjustment due to Trade Receivables declined from 0% of Revenue booked in FY21 to (-12%) in FY22
- AT&C losses deteriorated from 25.9% in FY21 to 33.5% in FY22 – driven majorly by improvement in Collection Efficiency (from 100% in FY21 to 87% in FY22)

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### Key Strengths

#### Financial Sustainability

- Days Receivable currently at 50 days as against National median of ~71 days
- Healthy Debt levels – currently Debt as % of Revenue booked is ~15%, as compared to National median of ~50%

---

### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap may be improved – currently at INR 0.46/ kWh
  - Positive PBT (1% of Revenue booked)
  - Negative cash adjustment due to Trade Receivables ((-12%) of Revenue booked)
- Debt Service Coverage Ratio (cash adjusted) may be improved, currently at (-1.88) (for max. score, expected greater than or equal to 1.1)
- Leverage (Cash Adjusted) may be improved, currently at (-3.87) (for max. score, expected greater than 0 upto 5)

#### Performance Excellence

- Billing Efficiency can be improved – currently at 76.4% (for max. score, expected is 92%+)
- Collection Efficiency can be improved - currently at 87% (for max. score, expected is 99.5%+)

#### External Environment

- Automatic pass-through of fuel costs can be implemented

#### Specific Disincentives

- Employee Liabilities can be addressed to remove audit qualification

# TP Northern Odisha Distribution Limited (TPNODL)



## Overview of TPNODL<sup>1</sup>

Ownership	Private Public Utility
Date of incorporation	20-Mar-2021
Nature of operations	Distribution
Area of operations	State of Odisha in Balasore, Bhadrak, Baripada, Jajpur and Keonjhar
Number of customers	2,089,083
% Agricultural customers	1.27%
% C&I customers	4.96%
Gross input energy	5,327 MU
Total energy sold	4,392 MU
Revenue booked <sup>2</sup>	INR 2,795 Cr
Profit after tax	INR 74 Cr

1. Values are from the latest available data.

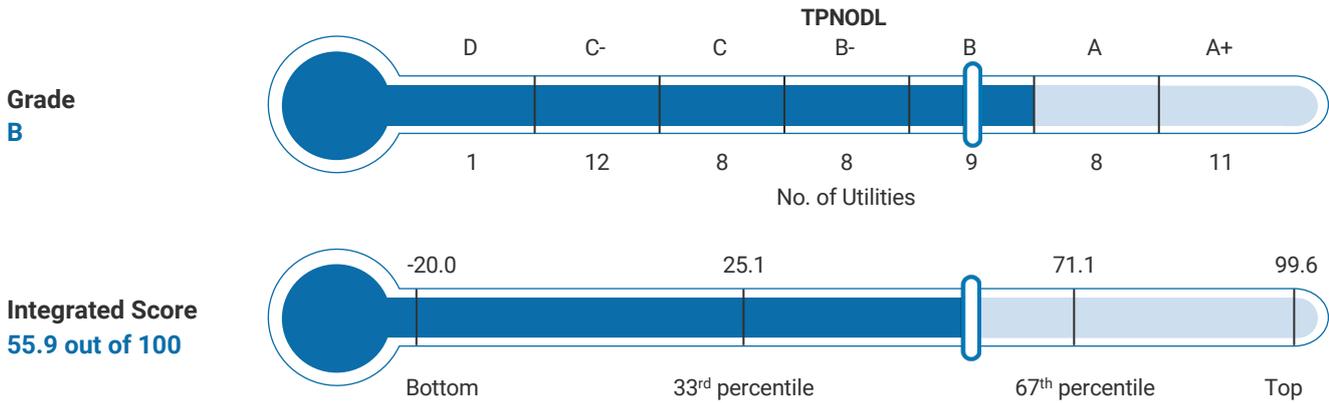
2. Revenue booked does not include other regulatory income.

## Key Insights

- TPNODL score improved significantly from 31.3 (10<sup>th</sup> Ratings) to 55.9 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR gap, Days receivables, Days Payables, Adjusted Quick Ratio Loss Takeover by State Government metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

TPNODL achieved Rank NA (out of 51 utilities), with Grade B and Integrated Score of 55.9 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score



## Summary of Performance across Metrics

Integrated Score: 55.9 out of 100									
Base Rating Score: 55.9									
Financial Sustainability			Performance Excellence			External Environment			
ACS – ARR gap (cash adjusted)	21.1	35	Distribution Loss (SERC approved)	2.0	2	Subsidy Realized (last 3 FYs)	4.0	4	
Days Receivable	3.0	3	Billing Efficiency	0.2	5	Loss Takeover by State Government	3.0	3	
Days Payable to GenCos & TransCos	8.0	10	Collection Efficiency	0.0	5	Government Dues (Last 3 FYs)	2.5	3	
Adjusted Quick Ratio	10.0	10	Corporate Governance	1.0	1	Tariff Cycle Timelines	1.0	1	
Debt Service Coverage Ratio (cash adjusted)	0.0	10				Auto Pass Through of Fuel Costs	0.0	1	
Leverage Debt/EBITDA (cash adjusted)	0.0	7							
Specific Disincentives: 0.0									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	0.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	0.0	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric



## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- TPNODL is a New Utility with 1 year of operation and hence has excluded from the ranking list. Last year the rating was done basis financials of the erstwhile utility (before takeover)
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 33%ile performers in Days Receivable – currently at 37 days as against National median of ~71 days
- Healthy Adjusted Quick Ratio, currently at 1.08
- Healthy Debt levels – currently Debt as % of Revenue booked is 8%, as compared to National median of ~50%

#### Performance Excellence

- Achieved SERC - approved Distribution loss target
- 

### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap can be improved – currently at INR 0.33/ kWh
  - Positive PBT (4% of Revenue booked)
  - Negative cash adjustment due to Trade Receivables ((-11%) of Revenue booked)
- Debt Service Coverage Ratio (cash adjusted) may be improved – currently at (-0.06) (for max. score, expected is greater than or equal to 1.1)
- Leverage can be improved which is currently at (-83.66) (for max. score, expected greater than 0 upto 5)

#### Performance Excellence

- Collection Efficiency can be improved – currently at 88% (for max. score, expected is 99.5%+)

#### External Environment

- Automatic pass-through of fuel costs can be implemented

# TP Southern Odisha Distribution Limited (TPSODL)



## Overview of TPSODL<sup>1</sup>

Ownership	Private Public Utility
Date of incorporation	25-Dec-2020
Nature of operations	Distribution
Area of operations	8 districts in Southern Odisha - Ganjam, Gajapati, Boudh, Kandhamal, Rayagarda, Koraput, Nabarangapur and Malkanagiri
Number of customers	2,391,570
% Agricultural customers	1.25%
% C&I customers	4.14%
Gross input energy	3,942 MU (337% change) <sup>3</sup>
Total energy sold	3,021 MU (321% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 1,735 Cr (355% change) <sup>3</sup>
Profit after tax	INR 69 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

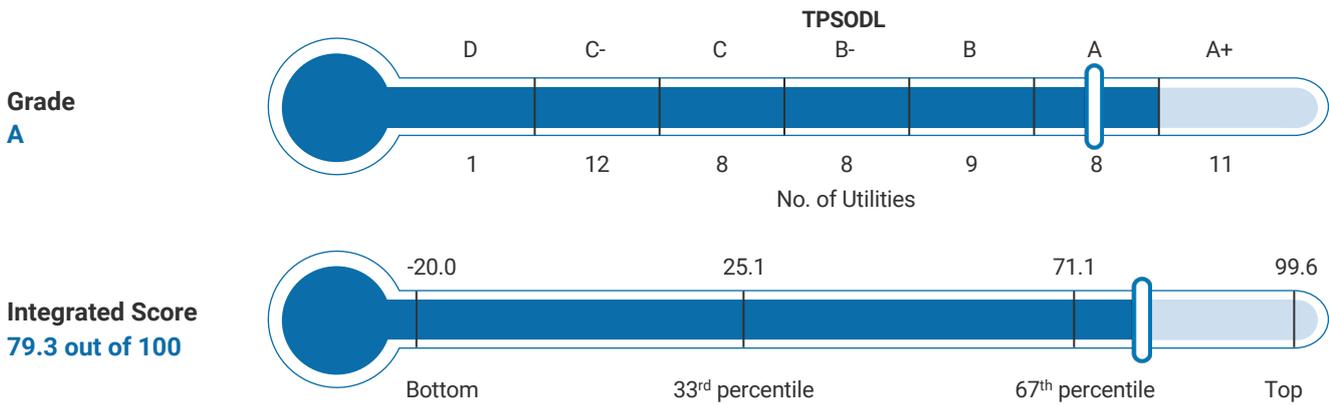
3. Compared to FY 2021.

## Key Insights

- TPSODL score improved significantly from 46.0 (10<sup>th</sup> Ratings) to 79.3 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR gap, DSCR metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

TPSODL achieved Rank NA (out of 51 utilities), with Grade A and Integrated Score of 79.3 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

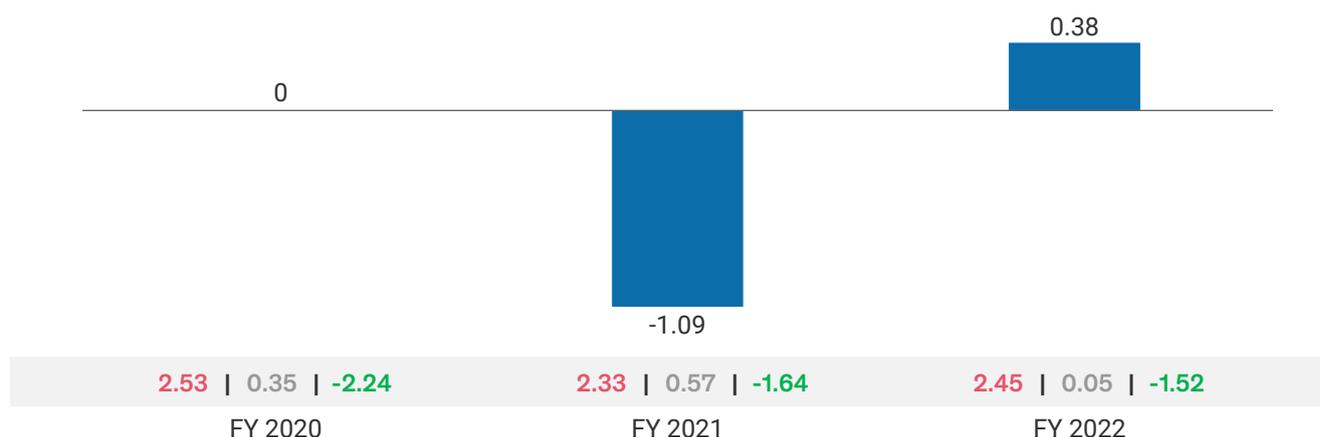


## Summary of Performance across Metrics

Integrated Score: 79.3 out of 100									
Base Rating Score: 79.3									
Financial Sustainability			Performance Excellence			External Environment			
ACS – ARR gap (cash adjusted)	66.5	75	Distribution Loss (SERC approved)	3.2	13	Subsidy Realized (last 3 FYs)	9.5	12	
Days Receivable	35.0	35	Billing Efficiency	2.0	2	Loss Takeover by State Government	4.0	4	
Days Payable to GenCos & TransCos	1.5	3	Collection Efficiency	0.0	5	Government Dues (Last 3 FYs)	3.0	3	
Adjusted Quick Ratio	10.0	10	Corporate Governance	0.2	5	Tariff Cycle Timelines	1.5	3	
Debt Service Coverage Ratio (cash adjusted)	10.0	10		1.0	1	Auto Pass Through of Fuel Costs	1.0	1	
Leverage Debt/EBITDA (cash adjusted)	10.0	10					0.0	1	
	0.0	7							
Specific Disincentives: 0.0									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	0.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	0.0	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



ACS - ARR Gap across all DISCOMs – Highest | Median | Lowest

ACS-ARR Gap – Weighted Average for 11th Ratings: **-0.21 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **NA**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Percentile			
			Bottom	33rd	67th	Top
Cash adjusted revenue	1.50	3.81	77%	96%	100%	130%
Power purchase cost	0.92	2.33	95%	84%	74%	50%
O&M expenses	0.66	1.69	38%	14%	9%	1%
Interest	0.03	0.07	19%	7%	3%	0%
Other expenses	0.04	0.10				
Gap / Surplus	-0.15	0.38	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- TPSODL is a New Utility with less than 2-years of operation and hence has been excluded from the ranking list
  - ACS-ARR Gap deteriorated from (-1.09) in FY21 to 0.38 in FY22. Major recasting in FY21 accounts
    - PBT (excl. Other Subsidy) declined significantly from 8% of Revenue booked in FY21 to 5% in FY22
    - Cash adjustment due to Trade Receivables has declined from 18% of Revenue booked in FY21 to (-14%) in FY22
  - AT&C losses deteriorated from 20.5% in FY21 to 34.3% in FY22 – driven majorly by decline in Collection Efficiency (from 100% in FY21 to 85.8% in FY22)
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 20%ile performers in Days Payable to Gencos and Transcos – currently at 37 days as compared to LPS norm of ~45 days
- Healthy Adjusted Quick Ratio, currently at 1.31
- Healthy Debt levels – currently Debt as % of Revenue booked is 20%, as compared to National median of ~50%

#### Performance Excellence

- Achieved SERC - approved Distribution loss target
- 

### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap can be reduced – currently at INR 0.38/kWh
  - Positive PBT (5% of Revenue booked)
  - Negative cash adjustment due to Trade Receivables ((-14%) of Revenue booked)
- Debt Service Coverage Ratio (cash adjusted) may be improved – currently at (-3.02) (for max. score, expected greater than or equal to 1.1)
- Leverage (cash adjusted) may be improved – currently at (-4.17) (for max. score, expected greater than 0 upto 5)

#### Performance Excellence

- Billing Efficiency can be improved – currently at 76.6% (for max. score, expected is 92%+)
- Collection Efficiency can be improved – currently at 86% (for max. score, expected is 99.5%+)

#### External Environment

- Automatic pass-through of fuel costs can be implemented

# TP Western Odisha Distribution Limited (TPWODL)



## Overview of TPWODL<sup>1</sup>

Ownership	Private Public Utility
Date of incorporation	30-Dec-2020
Nature of operations	Distribution
Area of operations	Western part of Odisha covering the circles of Rourkela, Sambalpur, Bargarh, Bolangir & Bhawanipatna
Number of customers	2,088,825
% Agricultural customers	3.53%
% C&I customers	4.69%
Gross input energy	9,313 MU (363% change) <sup>3</sup>
Total energy sold	7,356 MU (371% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 4,926 Cr (408% change) <sup>3</sup>
Profit after tax	INR 64 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

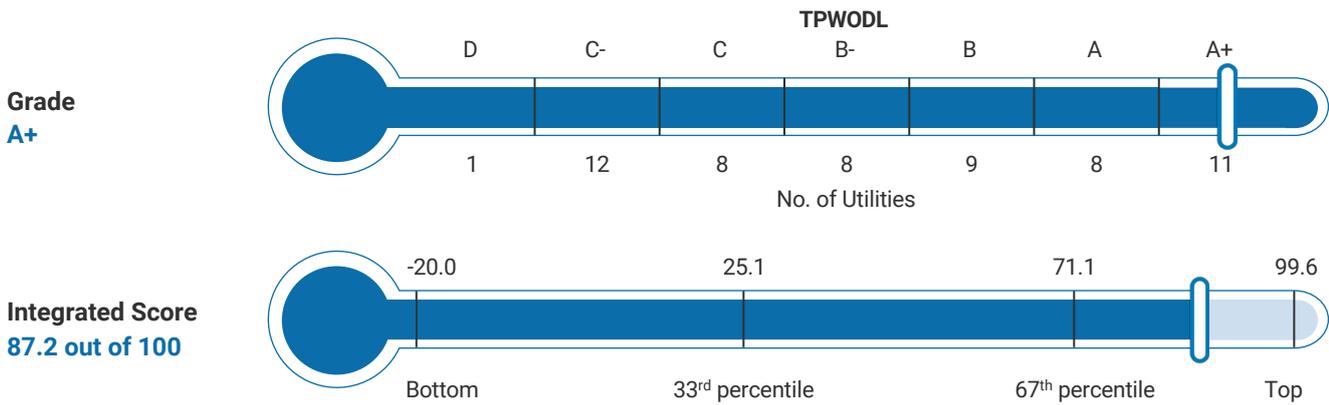
3. Compared to FY 2021.

## Key Insights

- TPWODL score improved from 81.5 (10<sup>th</sup> Ratings) to 87.2 (11<sup>th</sup> Ratings).
- Major improvement in ACR-ARR Gap, Loss Takeover by State Government metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

TPWODL achieved Rank NA (out of 51 utilities), with Grade A+ and Integrated Score of 87.2 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

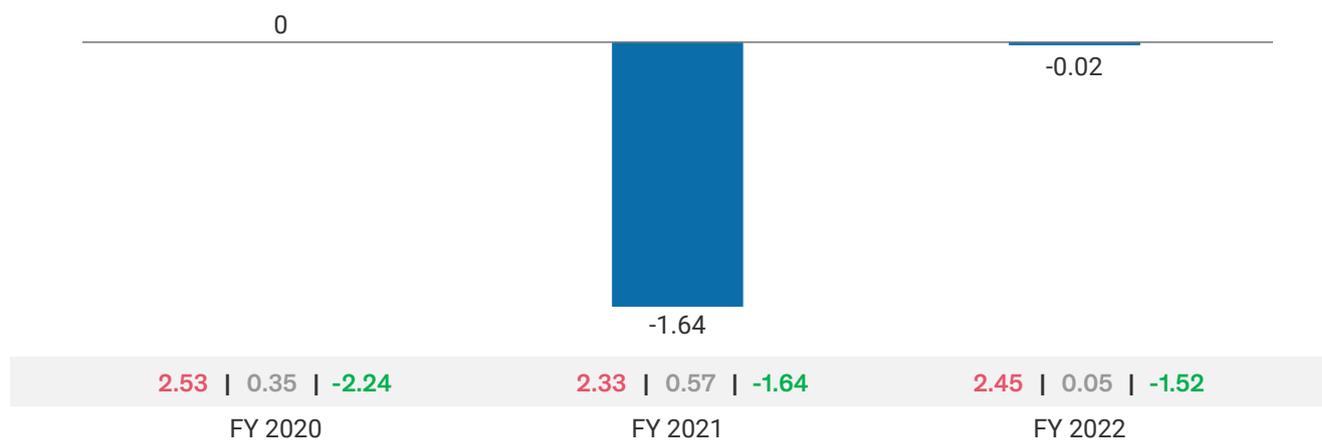


## Summary of Performance across Metrics

Integrated Score: 87.2 out of 100									
Base Rating Score: 87.2									
Financial Sustainability			Performance Excellence			External Environment			
	73.0	75		3.3	13		10.8	12	
ACS – ARR gap (cash adjusted)	35.0	35	Distribution Loss (SERC approved)	1.3	2	Subsidy Realized (last 3 FYs)	4.0	4	
Days Receivable	3.0	3	Billing Efficiency	0.0	5	Loss Takeover by State Government	3.0	3	
Days Payable to GenCos & TransCos	8.0	10	Collection Efficiency	1.1	5	Government Dues (Last 3 FYs)	2.8	3	
Adjusted Quick Ratio	10.0	10	Corporate Governance	1.0	1	Tariff Cycle Timelines	1.0	1	
Debt Service Coverage Ratio (cash adjusted)	10.0	10				Auto Pass Through of Fuel Costs	0.0	1	
Leverage Debt/EBITDA (cash adjusted)	7.0	7							
Specific Disincentives: 0.0									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	0.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	0.0	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **-0.67 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **NA**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	4.26	4.58	77%	96%	100%	130%
Power purchase cost	3.34	3.58	95%	84%	74%	50%
O&M expenses	0.73	0.79	38%	14%	9%	1%
Interest	0.04	0.05	19%	7%	3%	0%
Other expenses	0.13	0.14				
Gap / Surplus	0.02	-0.02	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated significantly from (-1.64) in FY21 to (-0.02) in FY22. Major recasting in FY21.
    - PBT (excl. Other Subsidy) improved from 10% of Revenue booked in FY21 to 14% in FY22
    - Cash adjustment due to Trade Receivables has declined from 24% of Revenue booked in FY21 to (-14%) in FY22
  - AT&C losses deteriorated from 22.4% in FY21 to 30.2% in FY22 – driven majorly by decline in Collection Efficiency (from 100% in FY21 to 88.4% in FY22)
- 

### Key Strengths

#### Financial Sustainability

- Days Receivable currently at 56 days as against National median of ~71 days
  - Healthy Adjusted Quick Ratio, currently at 1.74
  - Healthy Debt Service Coverage Ratio, currently at 4.39
  - Healthy Cash adjusted Leverage, currently at 0.96
  - Healthy Debt levels – currently Debt as % of Revenue booked is 4%, as compared to National median of ~50%
- 

### Key Improvement Areas

#### Performance Excellence

- Billing Efficiency can be improved – currently at 79.0% (for max. score, expected is 92%+)
- Collection Efficiency can be improved – currently at 88% (for max. score, expected is 99.5%+)

#### External Environment

- Automatic pass-through of fuel costs should be implemented

# Noida Power Company Limited (NPCL)



## Overview of NPCL<sup>1</sup>

Ownership	Private Public Utility
Date of incorporation	29-Jun-1992
Nature of operations	Distribution
Area of operations	Greater Noida
Number of customers	117,755
% Agricultural customers	0.90%
% C&I customers	7.47%
Gross input energy	2,712 MU (15% change) <sup>3</sup>
Total energy sold	2,338 MU (16% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 2,055 Cr (19% change) <sup>3</sup>
Profit after tax	INR 150 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

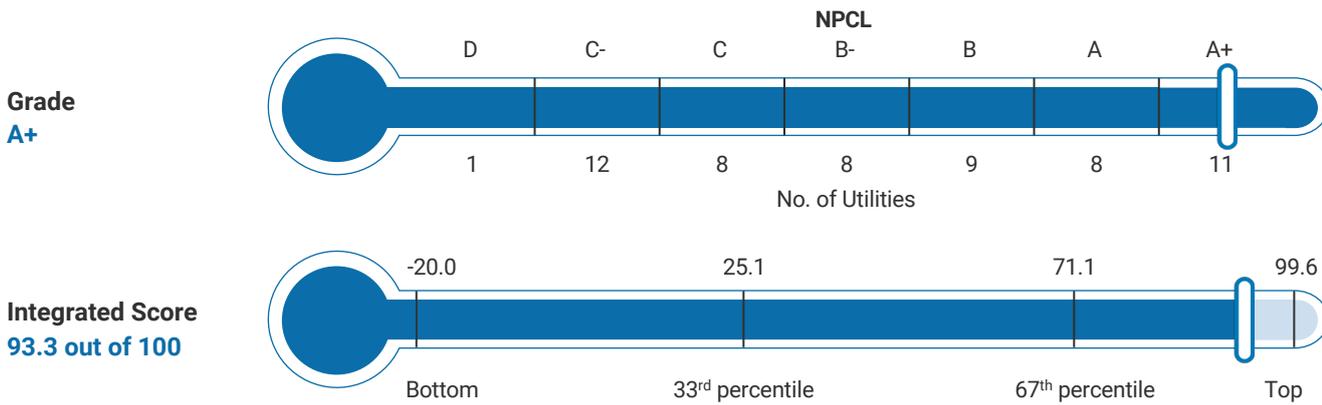
3. Compared to FY 2021.

## Key Insights

- NPCL score improved from 92.3 (10<sup>th</sup> Ratings) to 93.3 (11<sup>th</sup> Ratings).
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

NPCL achieved Rank 7 (out of 51 utilities), with Grade A+ and Integrated Score of 93.3 out of 100. Further, it exhibited a Stable Trajectory w.r.t. Integrated Score

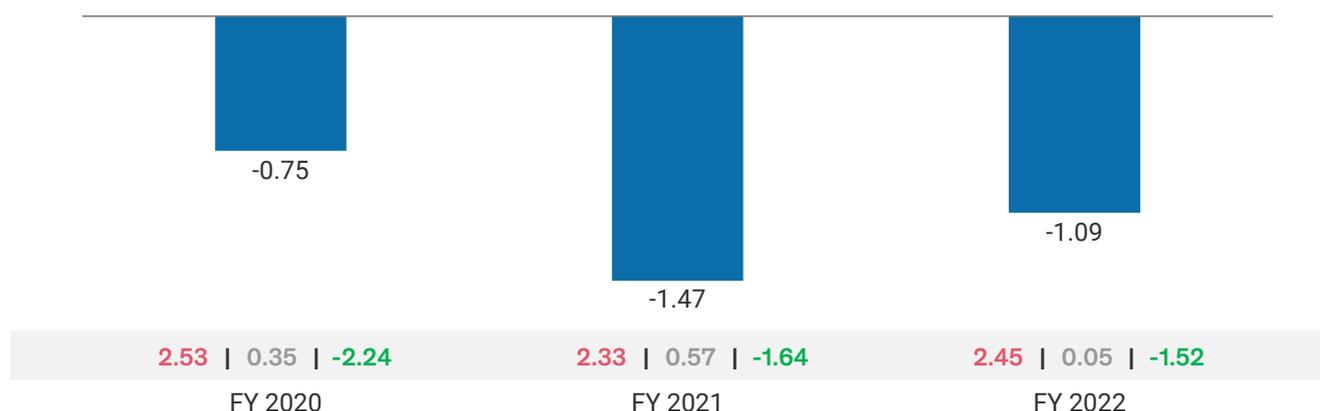


## Summary of Performance across Metrics

Integrated Score: 93.3 out of 100									
Base Rating Score: 94.3									
Financial Sustainability			Performance Excellence			External Environment			
ACS – ARR gap (cash adjusted)	73.0	75	Distribution Loss (SERC approved)	11.3	13	Subsidy Realized (last 3 FYs)	10.0	12	
Days Receivable	35.0	35	Billing Efficiency	4.0	5	Loss Takeover by State Government	3.0	3	
Days Payable to GenCos & TransCos	3.0	3	Collection Efficiency	4.8	5	Government Dues (Last 3 FYs)	3.0	3	
Adjusted Quick Ratio	8.0	10	Corporate Governance	0.8	1	Tariff Cycle Timelines	0.0	1	
Debt Service Coverage Ratio (cash adjusted)	10.0	10				Auto Pass Through of Fuel Costs	0.0	1	
Leverage Debt/EBITDA (cash adjusted)	10.0	10							
	7.0	7							
Specific Disincentives: -1.0									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	0.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	-1.0	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



ACS - ARR Gap across all DISCOMs – Highest | Median | Lowest

ACS-ARR Gap – Weighted Average for 11th Ratings: **-1.13 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-21% (improving)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	2.05	7.56	77%	96%	100%	130%
Power purchase cost	1.53	5.62	95%	84%	74%	50%
O&M expenses	0.13	0.50	38%	14%	9%	1%
Interest	0.01	0.05	19%	7%	3%	0%
Other expenses	0.08	0.30				
Gap / Surplus	0.30	-1.09	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated from (-1.47) in FY21 to (-1.09) in FY22
    - PBT (excl. Other Subsidy) declined from 21% of Revenue booked in FY21 to 15% in FY22
  - AT&C losses improved from 9.8% in FY21 to 8.5% in FY22 – driven majorly by improvement in Collection Efficiency (from 98.5% in FY21 to 99.4% in FY22)
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 10%ile performers in ACS-ARR Gap (cash adjusted)
  - Positive PBT (9% of Revenue booked)
  - Marginally negative cash adjustment due to Trade Receivables
- Amongst the top 10%ile performers in Days Receivable – currently at 15 days as against National median of 71 days
- Healthy Adjusted Quick Ratio, currently at 1.49
- Healthy Debt Service Coverage Ratio currently at 29.36
- Healthy Debt levels – currently Debt as % of Revenue booked is Nil, as compared to National median of ~50%

#### Performance Excellence

- Amongst the top 25%ile performers in Billing Efficiency currently at 92.0%
- 

### Key Improvement Areas

#### External Environment

- Automatic pass-through of fuel costs can be implemented

#### Specific Disincentives

- Tariff and True-up Orders should be issued within the rating timelines

# CESC Limited (CESC)



## Overview of CESC<sup>1</sup>

Ownership	Privately Owned
Date of incorporation	28-Mar-1978
Nature of operations	Distribution
Area of operations	Areas of Kolkata and Howarah
Number of customers	-
% Agricultural customers	-
% C&I customers	-
Gross input energy	10,444 MU (5% change) <sup>3</sup>
Total energy sold	9,615 MU (5% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 7,479 Cr (5% change) <sup>3</sup>
Profit after tax	INR 816 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

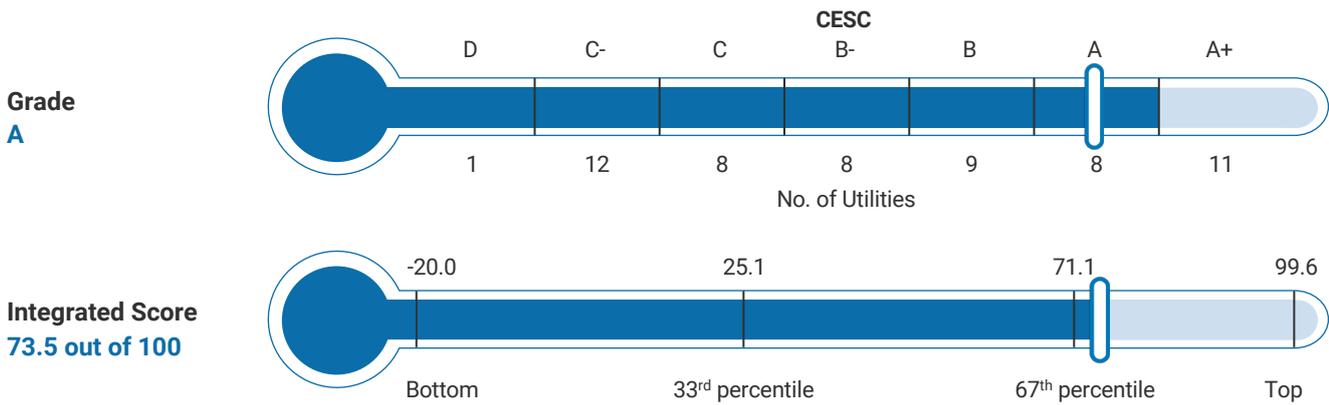
3. Compared to FY 2021.

## Key Insights

- CESC score improved from 71.2 (10<sup>th</sup> Ratings) to 73.5 (11<sup>th</sup> Ratings).
- Major improvement in DSCR metric in FY22
- Major decline in Days Payable in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

CESC achieved Rank 16 (out of 51 utilities), with Grade A and Integrated Score of 73.5 out of 100. Further, it exhibited a Stable Trajectory w.r.t. Integrated Score

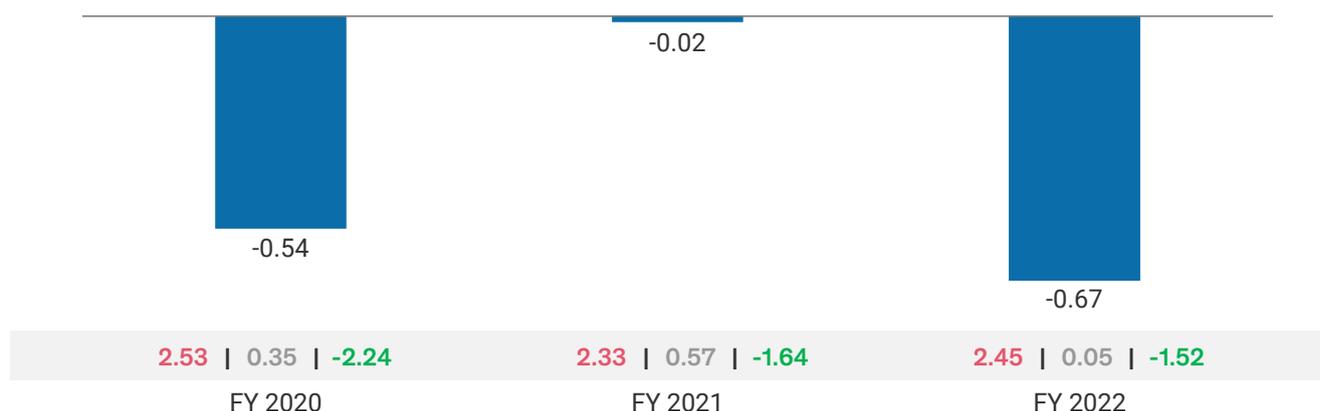


## Summary of Performance across Metrics

Integrated Score: 73.5 out of 100									
Base Rating Score: 76.2									
Financial Sustainability			Performance Excellence			External Environment			
ACS – ARR gap (cash adjusted)	35.0	35	Distribution Loss (SERC approved)	2.0	2	Subsidy Realized (last 3 FYs)	4.0	4	
Days Receivable	3.0	3	Billing Efficiency	3.9	5	Loss Takeover by State Government	3.0	3	
Days Payable to GenCos & TransCos	0.0	10	Collection Efficiency	4.5	5	Government Dues (Last 3 FYs)	2.9	3	
Adjusted Quick Ratio	1.5	10	Corporate Governance	1.0	1	Tariff Cycle Timelines	0.0	1	
Debt Service Coverage Ratio (cash adjusted)	7.7	10				Auto Pass Through of Fuel Costs	1.0	1	
Leverage Debt/EBITDA (cash adjusted)	6.7	7							
Specific Disincentives: -2.8									
Auditor's Adverse Opinion	0.0	-15	Audit Qualifications	0.0	-4	Tariff Independent of Subsidy	0.0	-1	
Availability of Audited Accounts	0.0	-15	Governance (Audit Committee, Exclusive MD & DF)	0.0	-3	Uncovered Revenue Gap (Current Year)	0.0	-4	
Default to Banks/FIs	0.0	-15	Tariff Cycle Delays	-2.8	-4.5	Regulatory Assets	0.0	-5	

Allotted score
  Top 33<sup>rd</sup> percentile
  Middle 33<sup>rd</sup> percentile
  Bottom 33<sup>rd</sup> percentile
  Red card metric

## Analysis of ACS-ARR Gap (In INR / kWh)



ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **-0.48 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-12% (improving)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	7.85	7.51	77%	96%	100%	130%
Power purchase cost	4.29	4.11	95%	84%	74%	50%
O&M expenses	1.86	1.78	38%	14%	9%	1%
Interest	0.50	0.48	19%	7%	3%	0%
Other expenses	0.50	0.47				
Gap / Surplus	0.70	-0.67	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from (-0.02) in FY21 to (-0.67) in FY22
    - PBT (excl. Other Subsidy) declined from 5% of Revenue booked in FY21 to 4% in FY22
    - Cash adjustment due to Trade Receivables has improved from (-5%) of Revenue booked in FY21 to 5% in FY22
  - AT&C losses improved from 14.0% in FY21 to 8.1% in FY22 – driven majorly by improvement in Collection Efficiency (from 93.9% in FY21 to 100% in FY22)
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 10%ile performers in ACS-ARR Gap (cash adjusted)
  - Positive PBT (14% of Revenue booked)
  - Positive cash adjustment due to Trade Receivables (5% of Revenue booked)
- Days Receivable currently at 52 days as against National median of ~71 days
- Healthy Debt Service Coverage Ratio (cash adjusted), currently at 1.16
- Healthy Cash adjusted Leverage, currently at 4.93

#### Performance Excellence

- Collection Efficiency currently at 100%
- Achieved SERC - approved Distribution loss target

#### External Environment

- Discom implements automatic pass-through of fuel costs
- 

### Key Improvement Areas

#### Financial Sustainability

- Days Payable may be reduced – currently at 75 days as compared to LPS norm of 45 days
- Debt levels can be reduced – currently Debt as % of Revenue booked is significantly high at 112%, as compared to National median of ~50%

#### External Environment

- Require regulatory support for issuance of true-up order for FY21

#### Specific Disincentives

- Tariff and True-up Orders, Tariff Petition should be issued within the rating timelines

# India Power Corporation Limited (IPCL)



## Overview of IPCL<sup>1</sup>

Ownership	Private Owned
Date of incorporation	2-Jul-1919
Nature of operations	Distribution
Area of operations	Asansol – Ranigunj area of West Bengal
Number of customers	6,121
% Agricultural customers	0.00%
% C&I customers	23.62%
Gross input energy	977 MU (11% change) <sup>3</sup>
Total energy sold	947 MU (12% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 584 Cr (13% change) <sup>3</sup>
Profit after tax	INR 16 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

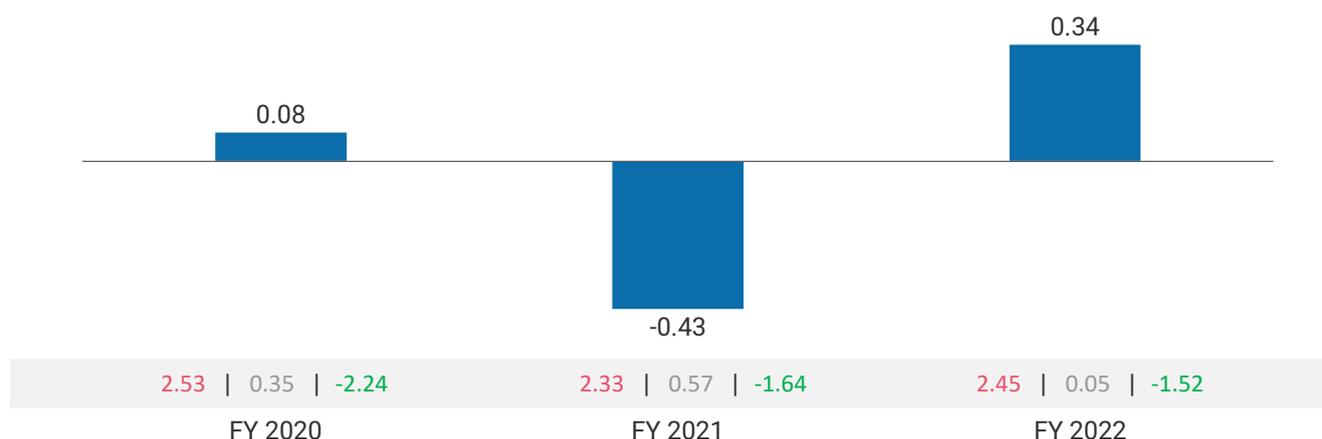
3. Compared to FY 2021.

## Key Insights

- IPCL score declined from 89.8 (10<sup>th</sup> Ratings) to 71.4 (11<sup>th</sup> Ratings).
- Major decline in ACR-ARR gap, DSCR, Leverage metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Audited accounts



## Analysis of ACS-ARR Gap (In INR / kWh)



ACS - ARR Gap across all DISCOMs – **Highest** | **Median** | **Lowest**

ACS-ARR Gap – Weighted Average for 11th Ratings: **0.11 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **100% (deteriorating)**

## ACS-ARR gap components for FY22 (Amount in INR '000 crores)

ACS - ARR gap Component	Amount INR '000 cr.	Amount INR / kWh	Distribution of percentage share of total revenue booked			
			Bottom	33rd	67th	Top
Cash adjusted revenue	0.58	5.93	77%	96%	100%	130%
Power purchase cost	0.47	4.82	95%	84%	74%	50%
O&M expenses	0.08	0.81	38%	14%	9%	1%
Interest	0.03	0.34	19%	7%	3%	0%
Other expenses	0.03	0.29				
Gap / Surplus	-0.03	0.34	2.45	0.36	-0.12	-1.52

Note: Total revenue billed, and cash adjusted revenue has been derived and each cost component has been calculated as a % of billed revenue. Amounts in '000 Crores rounded off to 2 decimal places; % rounded off to nearest whole number; Other numbers rounded off to 2 decimal places; \* Unrealized Revenue.

## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated from (-0.43) in FY21 to 0.34 in FY22
    - PBT (excl. Other Subsidy) declined from 7% of Revenue booked in FY21 to (-5%) in FY22
    - Cash adjustment due to Trade Receivables has declined from 1% of Revenue booked in FY21 to (-1%) in FY22
  - AT&C losses deteriorated marginally from 3.5% in FY21 to 4.0% in FY22
- 

### Key Strengths

#### Financial Sustainability

- Amongst the top 33<sup>rd</sup>ile performers in Days Receivable – currently at 43 days as against National median of 71 days

#### Performance Excellence

- Amongst the top 10<sup>th</sup>ile performers in Billing Efficiency currently at 96.9%
- Achieved SERC approved Distribution loss target

#### External Environment

- Discom implements automatic pass-through of fuel costs
- 

### Key Improvement Areas

#### Financial Sustainability

- Debt Service Coverage Ratio (cash adjusted) may be improved, currently at 0.53 (for max. score, it should be greater than or equal to 1.1)

#### External Environment

- Require regulatory support for issuance of tariff order for FY23 and true-up order for FY21

#### Specific Disincentives

- Tariff and True-up Orders, Tariff Petition should be issued within the rating timelines

## C. Power departments

### Electricity Department, Andaman & Nicobar Administration (Andaman & Nicobar PD)



#### Overview of Andaman & Nicobar PD<sup>1</sup>

Ownership	Power Department
Nature of operations	Generation, Transmission and Distribution
Area of operations	UT of Andaman & Nicobar
Number of customers	NA
Gross input energy	NA
Total energy sold	NA
Revenue booked <sup>2</sup>	NA
Profit after tax	NA

1. Values are from the latest available data.

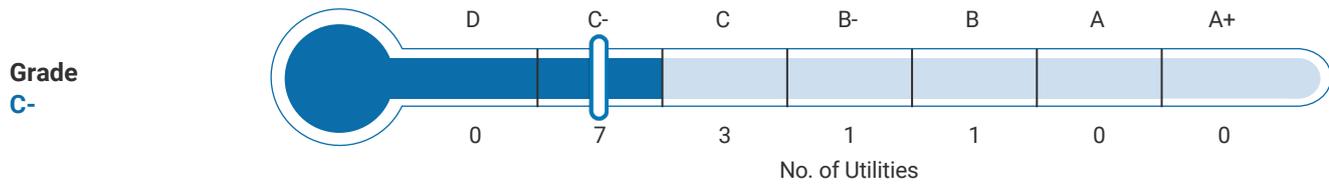
2. Revenue booked does not include other regulatory income.

#### Key Insights

- Andaman & Nicobar PD score declined from 2.7 (10<sup>th</sup> Ratings) to -3.8 (11<sup>th</sup> Ratings).
- Andaman & Nicobar PD, has not submitted their financials for the 11<sup>th</sup> Integrated Ratings Exercise. Hence, no marks have been awarded for metrics linked to financial accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

Andaman & Nicobar PD achieved Rank 11 (out of 11 power departments), with Grade C- and Integrated Score of -3.8 out of 100. Further, it exhibited a Declining Trajectory w.r.t. Integrated Score



## Summary of Performance across Metrics

Integrated Score: -3.8 out of 100					
Base Rating Score: 0.0					
Financial Sustainability		Performance Excellence		External Environment	
ACS – ARR gap (cash adjusted)	0.0	55	Distribution Loss (SERC approved)	0.0	35
	0.0	55	Billing Efficiency	0.0	10
			Collection Efficiency	0.0	10
			Corporate Governance	0.0	5
			Subsidy Realized (last 3 FYs)	0.0	10
			Tariff Cycle Timelines	0.0	2
			Auto Pass Through of Fuel Costs	0.0	2
Specific Disincentives: -3.8					
Tariff Cycle Delays	-2.8	-4.5	Tariff Independent of Subsidy	-1.0	-1
Regulatory Assets	0.0	-5	Uncovered Revenue Gap (Current Year)	0.0	-4

■ Allotted score

# Department of Power, Government of Arunachal Pradesh (Arunachal PD)



## Overview of Arunachal PD<sup>1</sup>

Ownership	Power Department
Nature of operations	Transmission, Distribution
Area of operations	State of Arunachal Pradesh
Number of customers	4.9 lakhs+
Gross input energy	1,416 MU (13% change) <sup>3</sup>
Total energy sold	844 MU (22% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 328 Cr (41% change) <sup>3</sup>
Profit after tax	INR -528 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

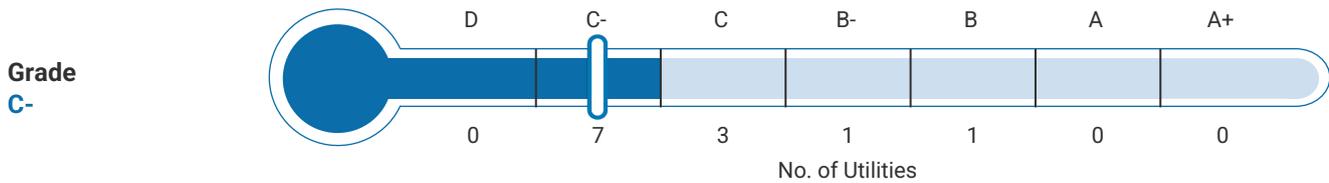
3. Compared to FY 2021.

## Key Insights

- Arunachal PD score declined from 5.5 (10<sup>th</sup> Ratings) to -0.5 (11<sup>th</sup> Ratings)
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Provisional accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

Arunachal PD achieved Rank 8 (out of 11 power departments), with Grade C- and Integrated Score of -0.5 out of 100. Further, it exhibited a Declining Trajectory w.r.t. Integrated Score

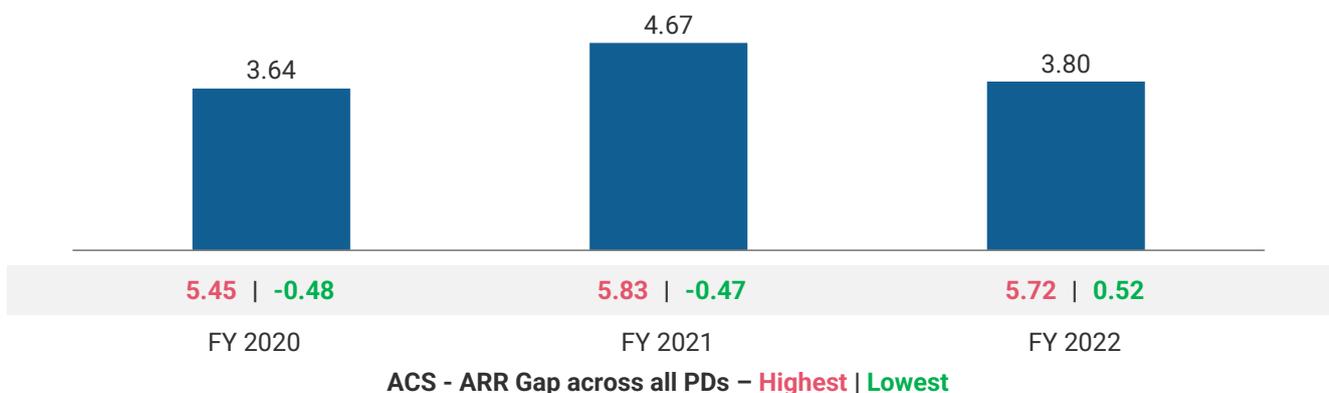


## Summary of Performance across Metrics

Integrated Score: -0.5 out of 100								
Base Rating Score: 4.0								
<b>Financial Sustainability</b>	<b>0.0</b>	<b>55</b>	<b>Performance Excellence</b>	<b>4.0</b>	<b>35</b>	<b>External Environment</b>	<b>0.0</b>	<b>10</b>
ACS – ARR gap (cash adjusted)	0.0	55	Distribution Loss (SERC approved)	0.0	10	Subsidy Realized (last 3 FYs)	0.0	6
			Billing Efficiency	0.0	10	Tariff Cycle Timelines	0.0	2
			Collection Efficiency	4.0	10	Auto Pass Through of Fuel Costs	0.0	2
			Corporate Governance	0.0	5			
Specific Disincentives: -4.5								
Tariff Cycle Delays	-3.5	-4.5	Tariff Independent of Subsidy	-1.0	-1			
Regulatory Assets	0.0	-5	Uncovered Revenue Gap (Current Year)	0.0	-4			

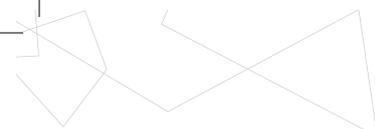
■ Allotted score

## Analysis of ACS-ARR Gap (In INR / kWh)



ACS-ARR Gap – Weighted Average for 11<sup>th</sup> Ratings: **3.99 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **2% (stable)**



## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved from 4.67 in FY21 to 3.80 in FY22
  - Cash adjustment due to Trade Receivables has improved from (-6%) of Revenue booked in FY21 to (-3%) in FY22
- AT&C losses improved from 59.4% in FY21 to 52.7% in FY22 – driven by improvement in Billing Efficiency (from 44% in FY21 to 50% in FY22) and Collection Efficiency (from 92.0% in FY21 to 94.7% in FY22)

---

### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap (cash adjusted) is significantly high – currently at 3.80
  - Negative PBT ((-161%) of Revenue booked)
  - Negative Cash Adjustment due to Trade Receivables ((-3%) of Revenue booked)

#### Performance Excellence

- Billing Efficiency can be improved – currently at 50% (for max. score, expected is 90%+)
- Distribution losses may be reduced – current losses are higher than SERC-approved levels
- Separated and audited accounts can be made available for the power department

#### External Environment

- Require regulatory support for issuance of tariff order for FY23 and true-up order for FY21
- Automatic pass-through of fuel costs can be implemented

#### Specific Disincentives

- Tariff and True-up Orders, Tariff Petition should be issued within the rating timelines
- Regulator should issue cost reflective tariff



# Electricity Wing of Engineering Department, Chandigarh Administration (Chandigarh PD)



## Overview of Chandigarh PD<sup>1</sup>

Ownership	Power Department
Nature of operations	Transmission, Distribution
Area of operations	UT of Chandigarh
Number of customers	-
Gross input energy	2,030 MU (8% change) <sup>3</sup>
Total energy sold	1,756 MU (9% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 839 Cr (-6% change) <sup>3</sup>
Profit after tax	INR -101 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

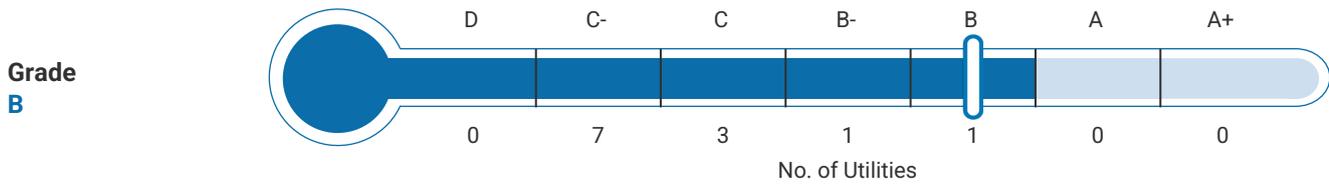
3. Compared to FY 2021.

## Key Insights

- Chandigarh PD score declined significantly from 81.6 (10<sup>th</sup> Ratings) to 54.9 (11<sup>th</sup> Ratings)
- Major deterioration in ACS-ARR Gap metric in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Provisional accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

Chandigarh PD achieved Rank 1 (out of 11 power departments), with Grade B and Integrated Score of 54.9 out of 100. Further, it exhibited a Declining Trajectory w.r.t. Integrated Score

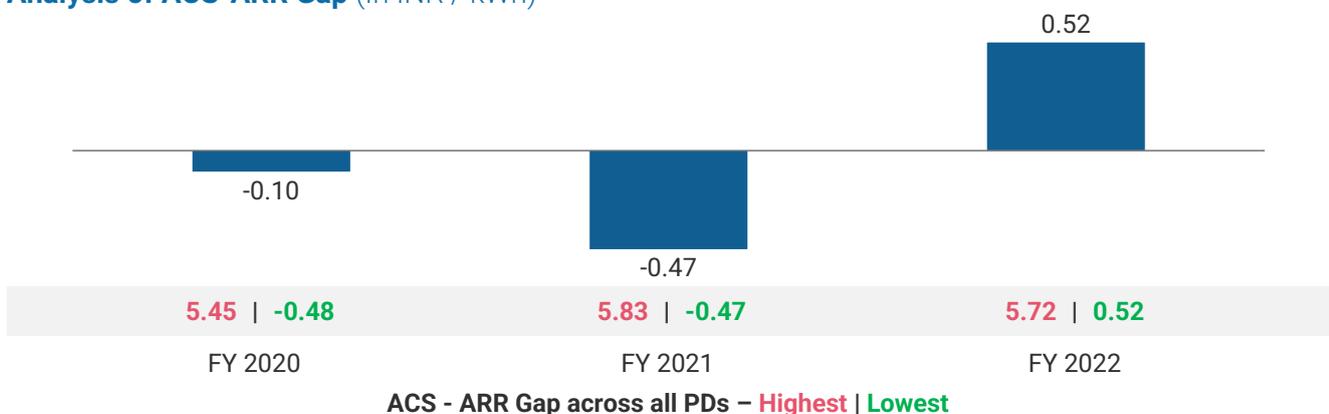


## Summary of Performance across Metrics

Integrated Score: 54.9 out of 100								
Base Rating Score: 56.4								
<b>Financial Sustainability</b>	<b>34.4</b>	<b>55</b>	<b>Performance Excellence</b>	<b>15.9</b>	<b>35</b>	<b>External Environment</b>	<b>6.0</b>	<b>10</b>
ACS – ARR gap (cash adjusted)	34.4	55	Distribution Loss (SERC approved)	0.0	10	Subsidy Realized (last 3 FYs)	6.0	6
			Billing Efficiency	6.5	10	Tariff Cycle Timelines	0.0	2
			Collection Efficiency	9.4	10	Auto Pass Through of Fuel Costs	0.0	2
			Corporate Governance	0.0	5			
Specific Disincentives: -1.5								
Tariff Cycle Delays	-1.5	-4.5	Tariff Independent of Subsidy	0.0	-1			
Regulatory Assets	0.0	-5	Uncovered Revenue Gap (Current Year)	0.0	-4			

■ Allotted score

## Analysis of ACS-ARR Gap (In INR / kWh)



ACS-ARR Gap – Weighted Average for 11<sup>th</sup> Ratings: **0.18 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **165% (deteriorating)**



## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated significantly from (-0.47) in FY21 to 0.52 in FY22
    - PBT (excl. Other Subsidy) declined from 9% of Revenue booked in FY21 to (-12%) in FY22
  - AT&C losses improved marginally from 13.8% in FY 21 to 13.3% in FY 22 – Driven majorly by improvement in Billing Efficiency (from 86.2% in FY21 to 87.5% in FY22)
- 

### Key Strengths

#### Financial Sustainability

- Low debt levels – current Debt at 0% of Revenue booked

#### Performance Excellence

- Collection Efficiency is high – currently at 99.1%
- 

### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap (cash adjusted) is significantly high – currently at 0.52
  - Negative PBT ((-12%) of Revenue booked)
  - Negative Cash Adjustment due to Trade Receivables

#### Performance Excellence

- Distribution losses may be reduced – current losses are higher than SERC-approved levels
- Separated and audited accounts can be made available for the power department

#### External Environment

- Automatic pass-through of fuel costs can be implemented

#### Specific Disincentive

- Tariff and True-up Orders, Tariff Petition should be issued within the rating timelines



# Electricity Department, UT Administration of Dadra & Nagar Haveli and Daman & Diu (Daman & Diu PD)



## Overview of Daman & Diu PD<sup>1</sup>

Ownership	Power Department
Nature of operations	Transmission, Distribution
Area of operations	UT of Daman & Diu
Number of customers	64,000 +
Gross input energy	NA
Total energy sold	NA
Revenue booked <sup>2</sup>	NA
Profit after tax	NA

1. Values are from the latest available data.

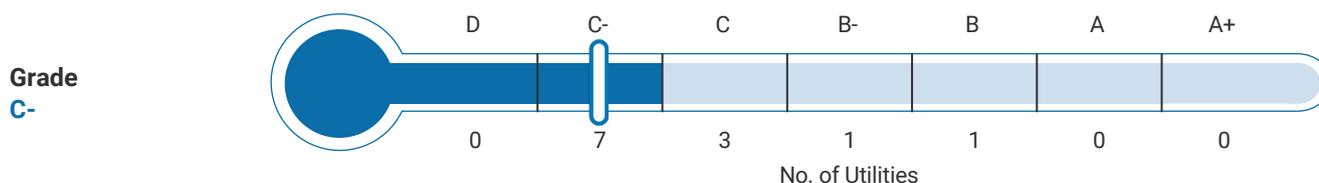
2. Revenue booked does not include other regulatory income.

## Key Insights

- Daman & Diu PD score declined significantly from 82.9 (10<sup>th</sup> Ratings) to 7.8 (11<sup>th</sup> Ratings).
- Daman & Diu PD, has not submitted their financials for the 11<sup>th</sup> Integrated Ratings Exercise. Hence, no marks have been awarded for metrics linked to financial accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

Daman & Diu PD achieved Rank 5 (out of 11 power departments), with Grade C- and Integrated Score of 7.8 out of 100. Further, it exhibited a Declining Trajectory w.r.t. Integrated Score



## Summary of Performance across Metrics

Integrated Score: 7.8 out of 100					
Base Rating Score: 8.0					
Financial Sustainability		Performance Excellence		External Environment	
ACS – ARR gap (cash adjusted)	0.0	55	Distribution Loss (SERC approved)	0.0	10
	0.0	55	Billing Efficiency	0.0	10
			Collection Efficiency	0.0	10
			Corporate Governance	0.0	5
			Subsidy Realized (last 3 FYs)	6.0	6
			Tariff Cycle Timelines	2.0	2
			Auto Pass Through of Fuel Costs	0.0	2
Specific Disincentives: -0.3					
Tariff Cycle Delays	-0.3	-4.5	Tariff Independent of Subsidy	0.0	-1
Regulatory Assets	0.0	-5	Uncovered Revenue Gap (Current Year)	0.0	-4

■ Allotted score

# Electricity Department, Government of Goa (Goa PD)



## Overview of Goa PD<sup>1</sup>

Ownership	Power Department
Nature of operations	Transmission, Distribution
Area of operations	State of Goa
Number of customers	6.2 lakhs+
Gross input energy	4,577 MU (7% change) <sup>3</sup>
Total energy sold	4,046 MU (6% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 2,084 Cr (7% change) <sup>3</sup>
Profit after tax	INR -264 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

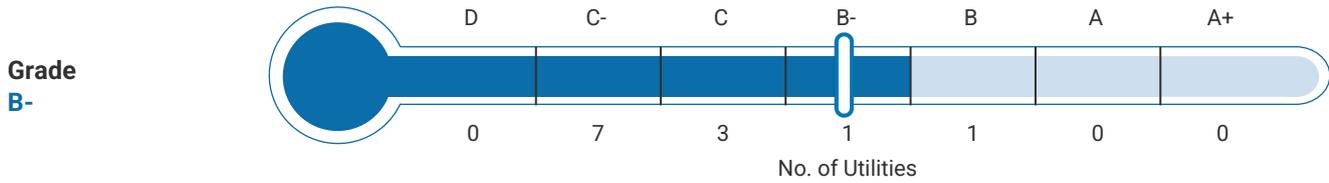
3. Compared to FY 2021.

## Key Insights

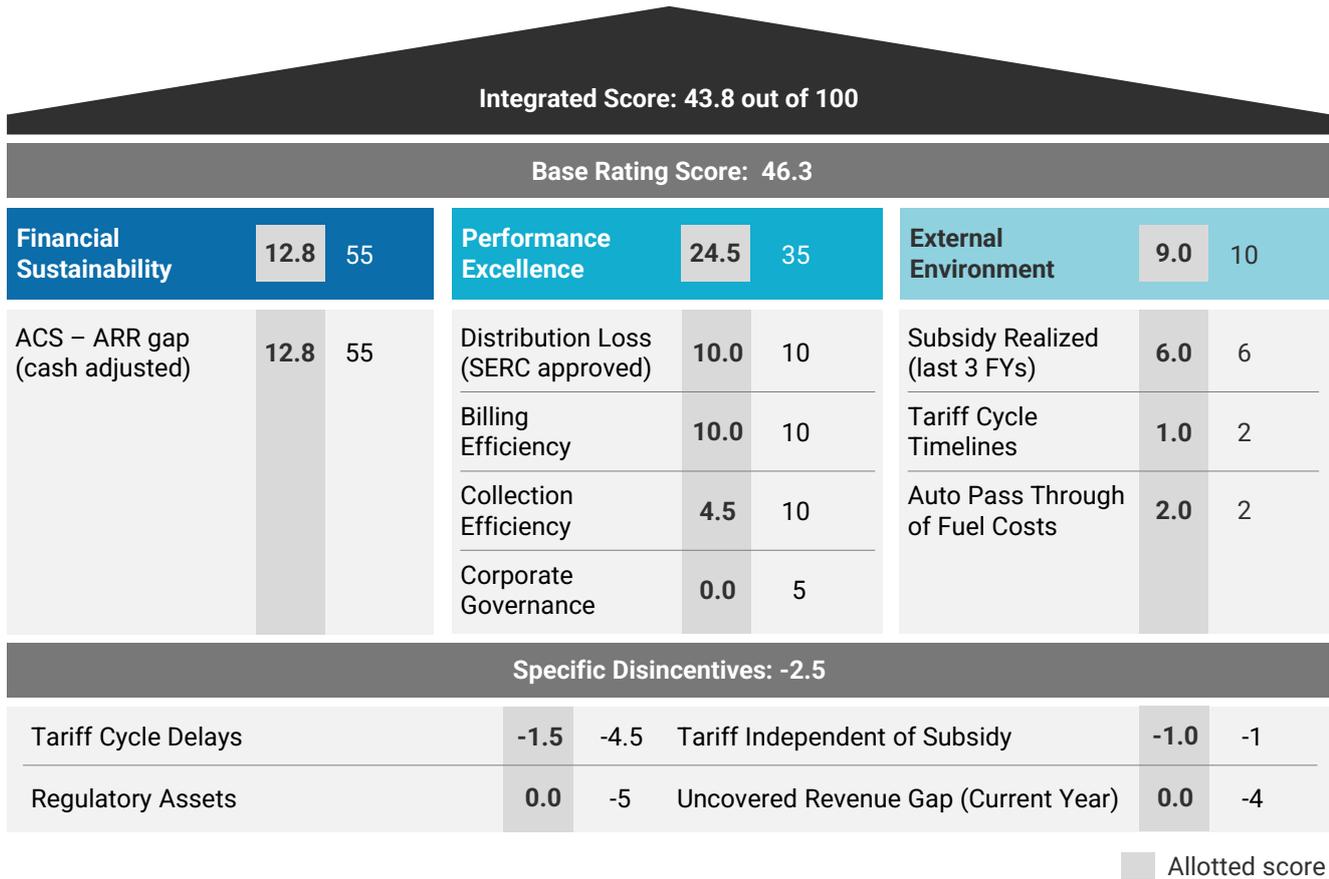
- Goa PD score declined from 51.1 (10<sup>th</sup> Ratings) to 43.8 (11<sup>th</sup> Ratings)
- Major decline in ACS-ARR Gap, Corporate Governance in FY22
- Major improvement in Distribution Loss as compared to SERC approved metric in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Provisional accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

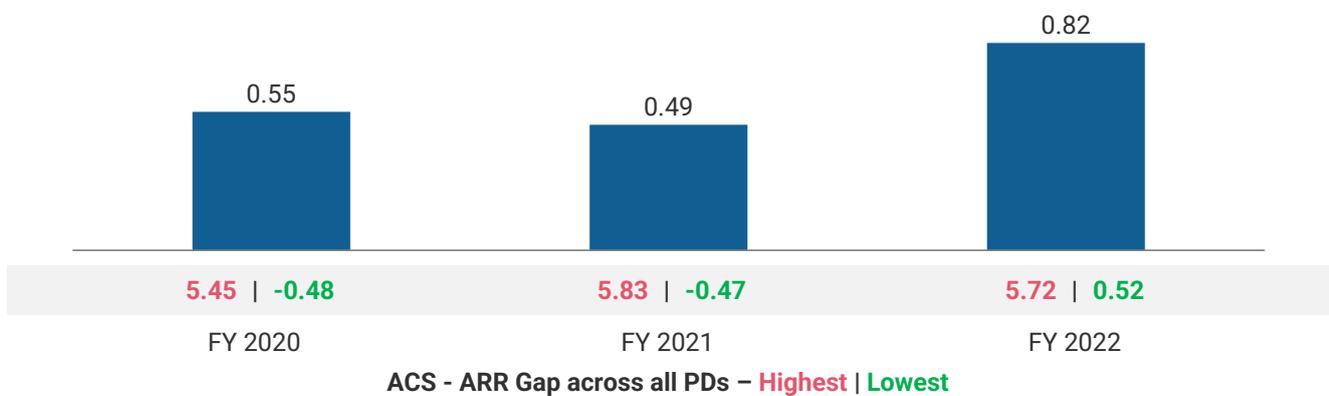
Goa PD achieved Rank 2 (out of 11 power departments), with Grade B- and Integrated Score of 43.8 out of 100. Further, it exhibited a Declining Trajectory w.r.t. Integrated Score



## Summary of Performance across Metrics



## Analysis of ACS-ARR Gap (In INR / kWh)



ACS-ARR Gap – Weighted Average for 11<sup>th</sup> Ratings: **0.69 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **22% (deteriorating)**



## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated from 0.49 in FY21 to 0.82 in FY22
    - PBT (excl. Other Subsidy) declined from (-5%) of Revenue booked in FY21 to (-13%) in FY22
    - Tariff Subsidy received has remained 100% of booked in both FY21, FY22
    - Cash adjustment due to Trade Receivables has improved from (-6%) of Revenue booked in FY21 to (-5%) in FY22
  - AT&C losses have remained similar – ~13.1% in FY21 to ~13.3% in FY22
- 

### Key Strengths

#### Financial Sustainability

- Low debt levels – current Debt at 13% of Revenue booked

#### Performance Excellence

- Achieved SERC-approved Distribution loss target
- Billing Efficiency is high – currently at 91.5%

#### External Environment

- Regulation supports automatic pass-through of fuel costs
- 

### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap (cash adjusted) is significantly high – currently at 0.82
  - Negative PBT ((-13%) of Revenue booked)
  - High Total Subsidy disbursement – 100% of Subsidy booked
  - Negative Cash Adjustment due to Trade Receivables ((-5%) of Revenue booked)

#### Performance Excellence

- Separated and audited accounts can be made available for the power department

#### External Environment

- Regulatory support needed for issuance of True-up Order for FY21

#### Specific Disincentives

- Regulator can determine cost-reflective Tariffs (currently tariffs are calculated after considering subsidy)
- True-up Order should be issued within the rating timelines



# Department of Electricity, UT of Lakshadweep

## (Lakshadweep ED)



### Overview of Lakshadweep ED<sup>1</sup>

Ownership	Power Department
Nature of operations	Distribution
Area of operations	NA
Number of customers	NA
Gross input energy	NA
Total energy sold	NA
Revenue booked <sup>2</sup>	NA
Profit after tax	NA

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

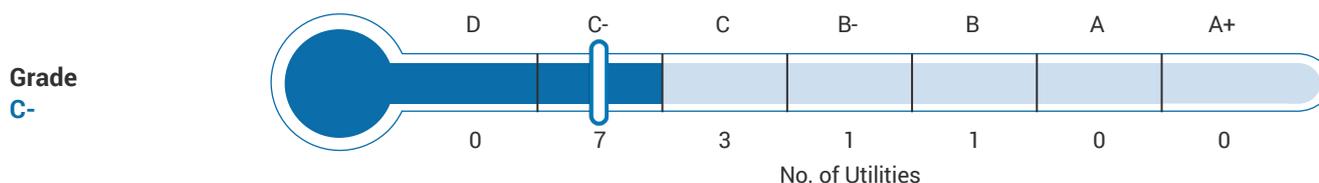
3. Compared to FY 2021.

### Key Insights

- Lakshadweep ED score improved marginally from -1.8 (10<sup>th</sup> Ratings) to -1.5 (11<sup>th</sup> Ratings)
- Lakshadweep ED, has not submitted their financials for the 11<sup>th</sup> Integrated Ratings Exercise. Hence, no marks have been awarded for metrics linked to financial accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

Lakshadweep ED achieved Rank 10 (out of 11 power departments), with Grade C- and Integrated Score of -1.5 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score



## Summary of Performance across Metrics

Integrated Score: -1.5 out of 100					
Base Rating Score: 1.0					
Financial Sustainability		Performance Excellence		External Environment	
	0.0	55		0.0	35
ACS – ARR gap (cash adjusted)	0.0	55	Distribution Loss (SERC approved)	0.0	10
			Billing Efficiency	0.0	10
			Collection Efficiency	0.0	10
			Corporate Governance	0.0	5
			Subsidy Realized (last 3 FYs)	0.0	6
			Tariff Cycle Timelines	1.0	2
			Auto Pass Through of Fuel Costs	0.0	2
Specific Disincentives: -2.5					
Tariff Cycle Delays	-1.5	-4.5	Tariff Independent of Subsidy	-1.0	-1
Regulatory Assets	0.0	-5	Uncovered Revenue Gap (Current Year)	0.0	-4

■ Allotted score

# Ladakh Power Development Department (Ladakh PD)



## Overview of Ladakh PD<sup>1</sup>

Ownership	Power Department
Nature of operations	Distribution
Area of operations	UT of Ladakh
Number of customers	NA
Gross input energy	259 MU
Total energy sold	172 MU
Revenue booked <sup>2</sup>	INR 121 Cr
Profit after tax	INR -7 Cr

1. Values are from the latest available data.

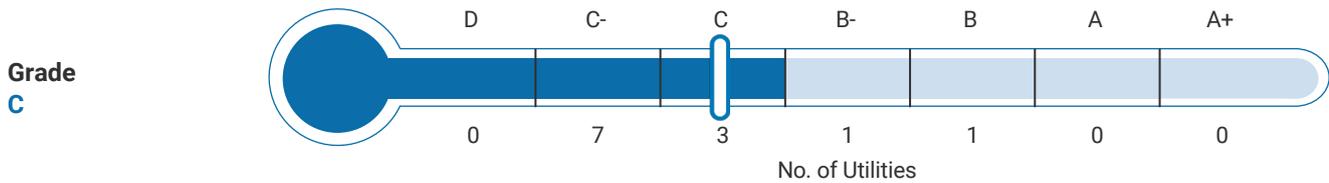
2. Revenue booked does not include other regulatory income.

## Key Insights

- Ladakh PD score declined from -18.4 (10<sup>th</sup> Ratings – as discom) to 33.8 (11<sup>th</sup> Ratings –as PD)
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Provisional accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

Ladakh PD achieved Rank NA (out of 11 power departments), with Grade C and Integrated Score of 33.8 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

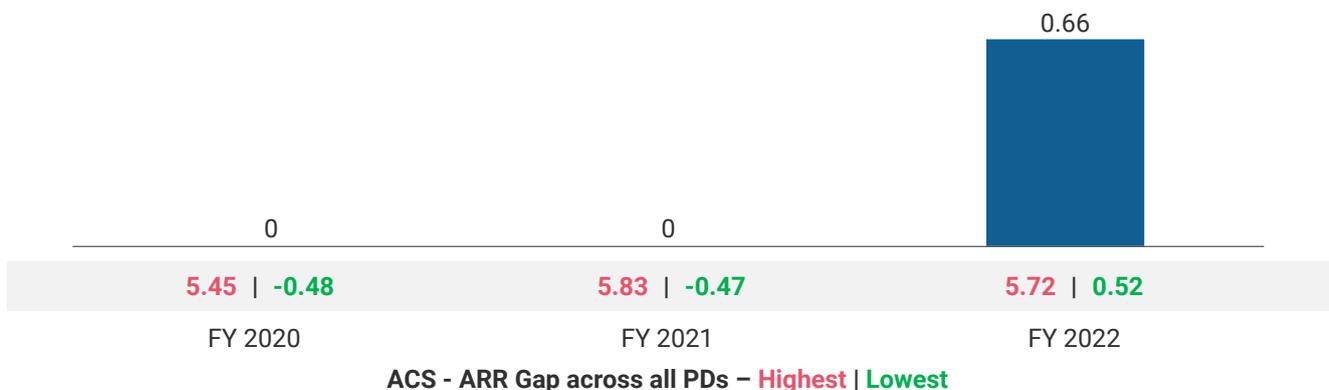


## Summary of Performance across Metrics

Integrated Score: 33.8 out of 100					
Base Rating Score: 35.8					
<b>Financial Sustainability</b>	<b>17.9</b>	<b>55</b>	<b>Performance Excellence</b>	<b>11.9</b>	<b>35</b>
<b>External Environment</b>	<b>6.0</b>	<b>10</b>			
ACS – ARR gap (cash adjusted)	17.9	55	Distribution Loss (SERC approved)	10.0	10
			Billing Efficiency	0.0	10
			Collection Efficiency	1.9	10
			Corporate Governance	0.0	5
			Subsidy Realized (last 3 FYs)	6.0	6
			Tariff Cycle Timelines	0.0	2
			Auto Pass Through of Fuel Costs	0.0	2
Specific Disincentives: -2.0					
Tariff Cycle Delays	-2.0	-4.5	Tariff Independent of Subsidy	0.0	-1
Regulatory Assets	0.0	-5	Uncovered Revenue Gap (Current Year)	0.0	-4

■ Allotted score

## Analysis of ACS-ARR Gap (In INR / kWh)





## Relative Performance, Key Strengths and Improvement Areas

### Background

- Ladakh has been classified as PD in 11<sup>th</sup> Rating, as opposed to DISCOM in the 10<sup>th</sup> Rating. Given that frameworks for PD and DISCOMs are different, its 11<sup>th</sup> Rating score is not comparable to 10<sup>th</sup> Rating Scores and it has not been ranked for 11<sup>th</sup> Exercise
- 

### Key Strengths

#### Performance Excellence

- Achieved SERC - approved Distribution loss target
- 

### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap (cash adjusted) is significantly high – currently at 0.66
  - Negative PBT ((-6%) of Revenue booked)
  - Total Subsidy disbursement – 100% of Subsidy booked
  - Negative Cash Adjustment due to Trade Receivables ((-8%) of Revenue booked)

#### Performance Excellence

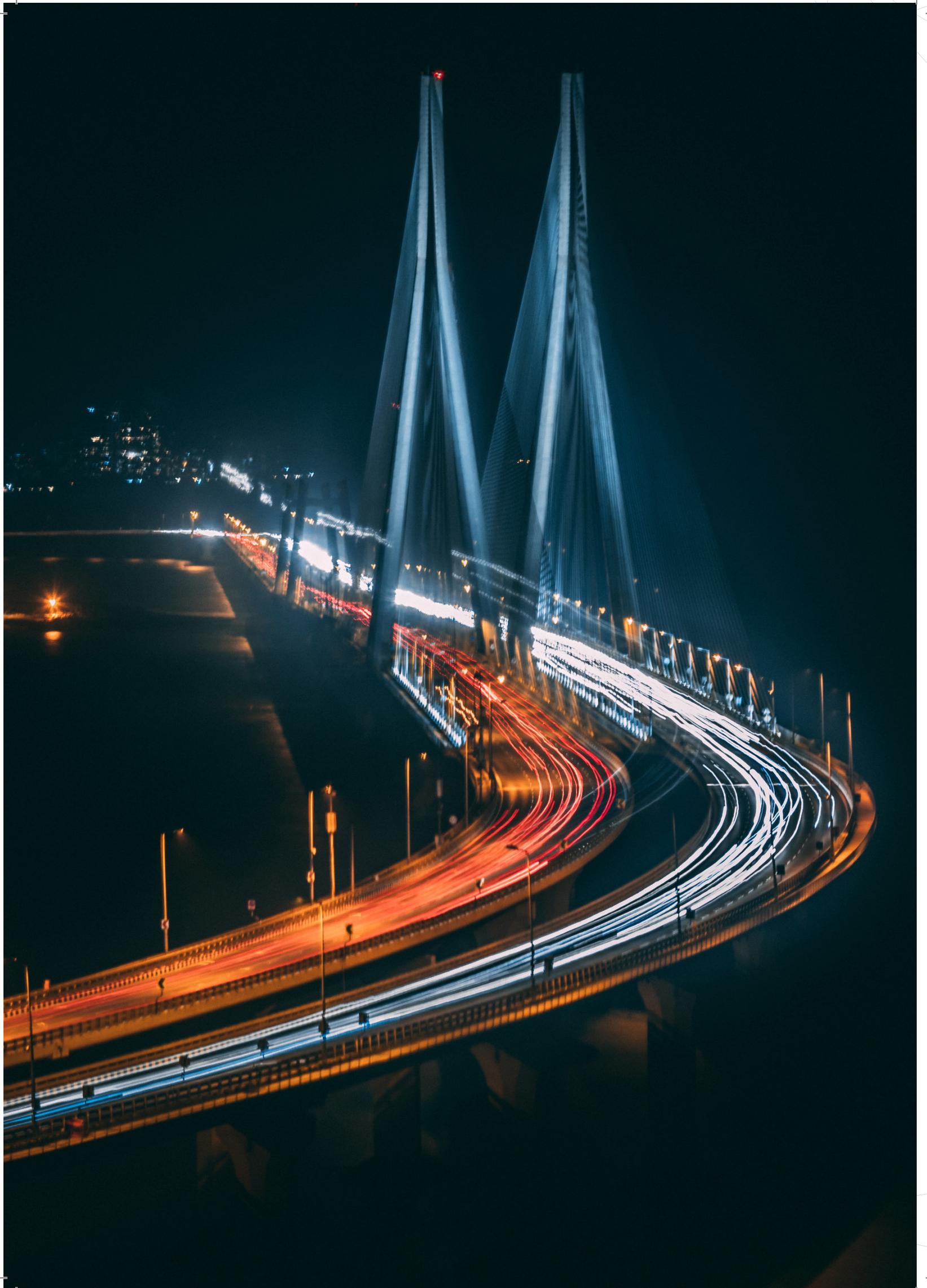
- Billing Efficiency can be improved – currently at 66.2% (for max. score, expected is 90%+)
- Separated and audited accounts can be made available for the power department

#### External Environment

- Automatic pass-through of fuel costs can be implemented

#### Specific Disincentives

- Tariff and True-up Orders, Tariff Petition should be issued within the rating timelines



# The Brihanmumbai Electric Supply & Transport Undertaking (BEST)



## Overview of BEST<sup>1</sup>

Ownership	Power Department
Nature of operations	Distribution
Area of operations	75 sq. km. territory of old city area of Mumbai
Number of customers	10 Lakhs+
Gross input energy	4,407 MU (9% change) <sup>3</sup>
Total energy sold	4,069 MU (10% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 3,120 Cr (7% change) <sup>3</sup>
Profit after tax	INR -609 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

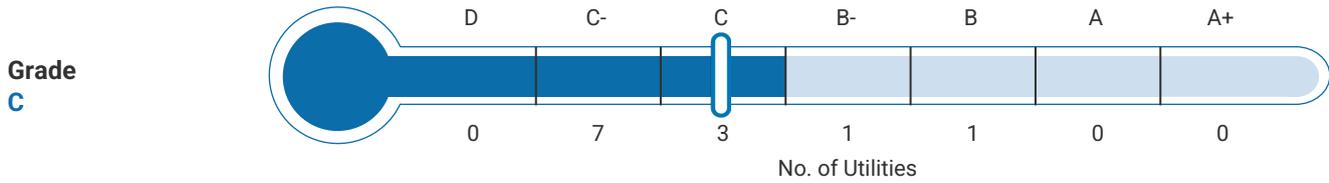
3. Compared to FY 2021.

## Key Insights

- BEST score declined significantly from 72.5 (10<sup>th</sup> Ratings) to 33.8 (11<sup>th</sup> Ratings)
- Major decline in ACS-ARR Gap, Collection Efficiency, Corporate Governance metrics in FY22
- Major improvement in Distribution Loss metric in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Provisional accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

BEST achieved Rank 3 (out of 11 power departments), with Grade C and Integrated Score of 33.8 out of 100. Further, it exhibited a Declining Trajectory w.r.t. Integrated Score

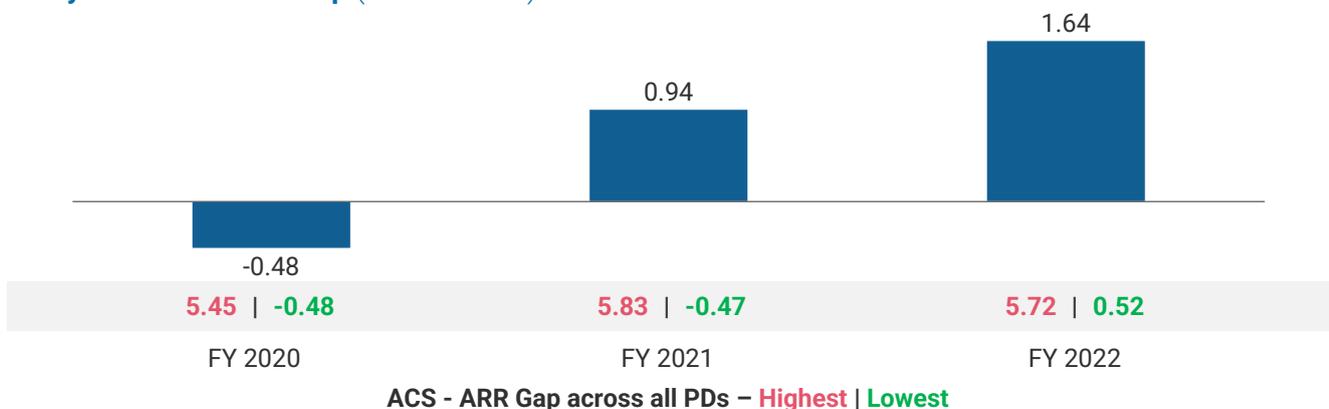


## Summary of Performance across Metrics

Integrated Score: 33.8 out of 100								
Base Rating Score: 33.8								
<b>Financial Sustainability</b>	<b>0.0</b>	<b>55</b>	<b>Performance Excellence</b>	<b>23.8</b>	<b>35</b>	<b>External Environment</b>	<b>10.0</b>	<b>10</b>
ACS – ARR gap (cash adjusted)	0.0	55	Distribution Loss (SERC approved)	6.4	10	Subsidy Realized (last 3 FYs)	6.0	6
			Billing Efficiency	10.0	10	Tariff Cycle Timelines	2.0	2
			Collection Efficiency	7.4	10	Auto Pass Through of Fuel Costs	2.0	2
			Corporate Governance	0.0	5			
Specific Disincentives: 0.0								
Tariff Cycle Delays	0.0	-4.5	Tariff Independent of Subsidy	0.0	-1			
Regulatory Assets	0.0	-5	Uncovered Revenue Gap (Current Year)	0.0	-4			

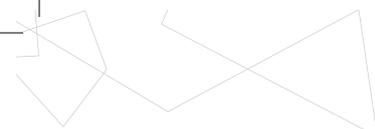
■ Allotted score

## Analysis of ACS-ARR Gap (In INR / kWh)



ACS-ARR Gap – Weighted Average for 11<sup>th</sup> Ratings: **1.15 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **133% (deteriorating)**



## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated from 0.94 in FY21 to 1.64 in FY22
    - PBT (excl. Other Subsidy) declined from (-10%) of Revenue booked in FY21 to (-20%) in FY22
  - AT&C losses have deteriorated marginally from 8.2% in FY21 to 8.4% in FY22
  - Cash adjustment due to Trade Receivables has declined from (-3%) of the Revenue booked in FY21 to (-4%) in FY22
- 

### Key Strengths

#### Performance Excellence

- Billing Efficiency is high – currently at 95.4%

#### External Environment

- Regulation supports automatic pass-through of fuel costs
- 

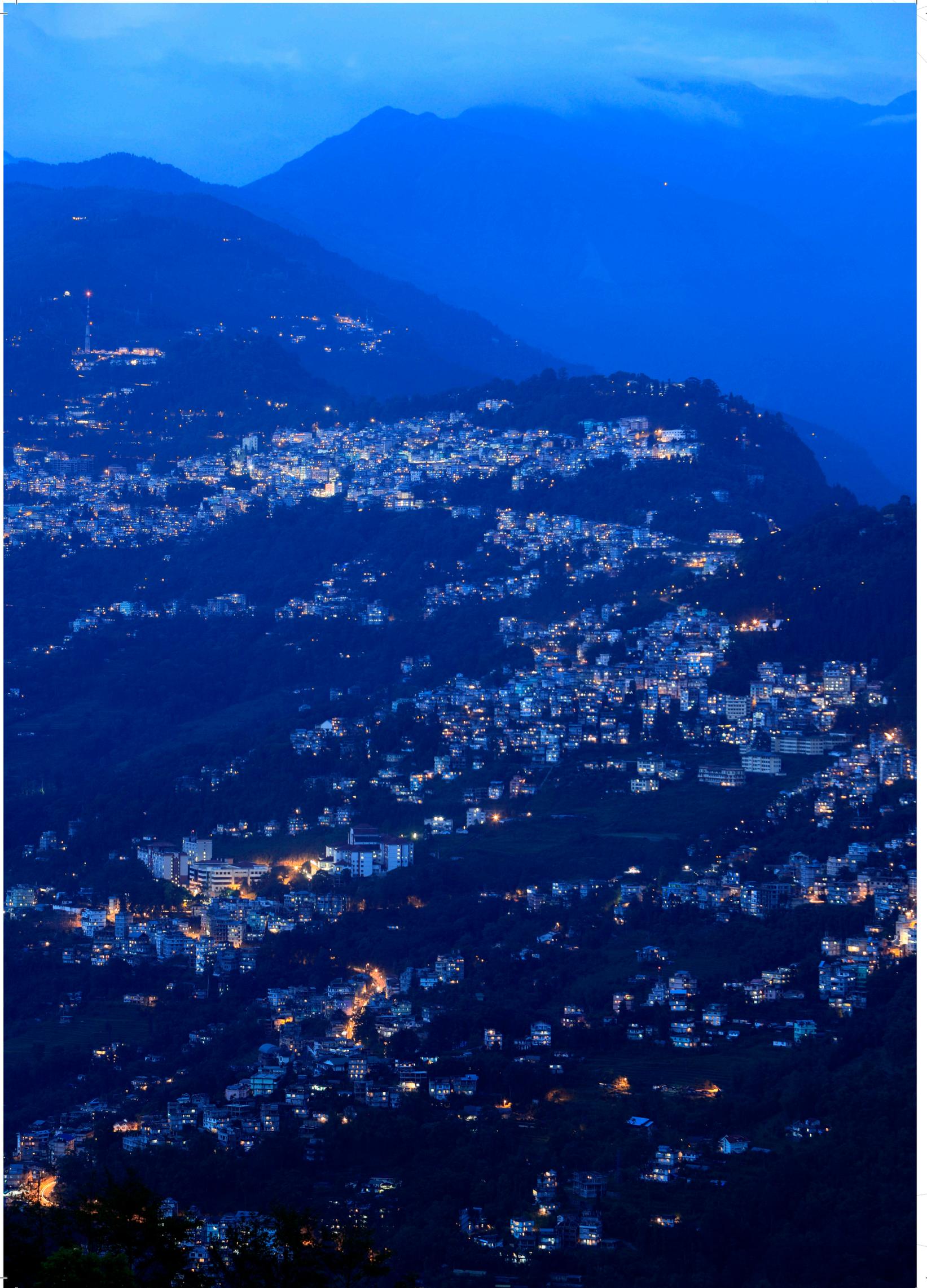
### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap (cash adjusted) is significantly high – currently at 1.64
  - Negative PBT ((-20%) of Revenue booked)
  - Negative cash adjustment due to Trade Receivables ((-4%) of Revenue booked)

#### Performance Excellence

- Separated and audited accounts can be made available for the power department



# Power & Electricity Department, Government of Mizoram (Mizoram PD)



## Overview of Mizoram PD<sup>1</sup>

Ownership	Power Department
Nature of operations	Generation, Transmission and Distribution
Area of operations	State of Mizoram
Number of customers	NA
Gross input energy	NA
Total energy sold	NA
Revenue booked <sup>2</sup>	NA
Profit after tax	NA

1. Values are from the latest available data.

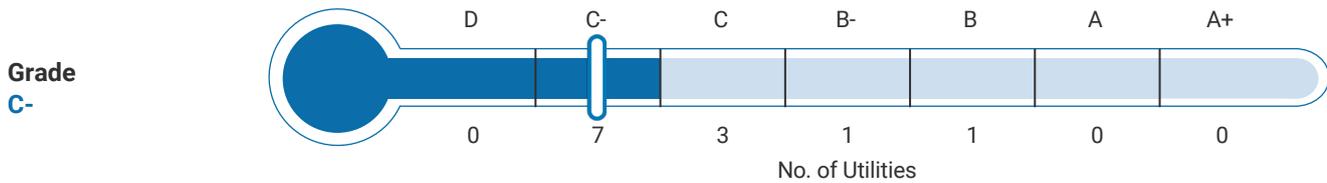
2. Revenue booked does not include other regulatory income.

## Key Insights

- Mizoram PD score declined from 23.3 (10<sup>th</sup> Ratings) to 4.0 (11<sup>th</sup> Ratings)
- Mizoram PD, has not submitted their financials for the 11<sup>th</sup> Integrated Ratings Exercise. Hence, no marks have been awarded for metrics linked to financial accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

Mizoram PD achieved Rank 7 (out of 11 power departments), with Grade C- and Integrated Score of 4.0 out of 100. Further, it exhibited a Declining Trajectory w.r.t. Integrated Score



## Summary of Performance across Metrics

Integrated Score: 4.0 out of 100					
Base Rating Score: 7.0					
Financial Sustainability		Performance Excellence		External Environment	
	0.0	55		0.0	35
ACS – ARR gap (cash adjusted)	0.0	55	Distribution Loss (SERC approved)	0.0	10
			Billing Efficiency	0.0	10
			Collection Efficiency	0.0	10
			Corporate Governance	0.0	5
			Subsidy Realized (last 3 FYs)	6.0	6
			Tariff Cycle Timelines	1.0	2
			Auto Pass Through of Fuel Costs	0.0	2
Specific Disincentives: -3.0					
Tariff Cycle Delays	-2.0	-4.5	Tariff Independent of Subsidy	-1.0	-1
Regulatory Assets	0.0	-5	Uncovered Revenue Gap (Current Year)	0.0	-4

■ Allotted score

# Department of Power, Nagaland (Nagaland PD)



## Overview of Nagaland PD<sup>1</sup>

Ownership	Power Department
Nature of operations	Generation Transmission & Distribution
Area of operations	State of Nagaland
Number of customers	NA
Gross input energy	908 MU (0% change) <sup>3</sup>
Total energy sold	445 MU (10% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 217 Cr (24% change) <sup>3</sup>
Profit after tax	INR -519 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

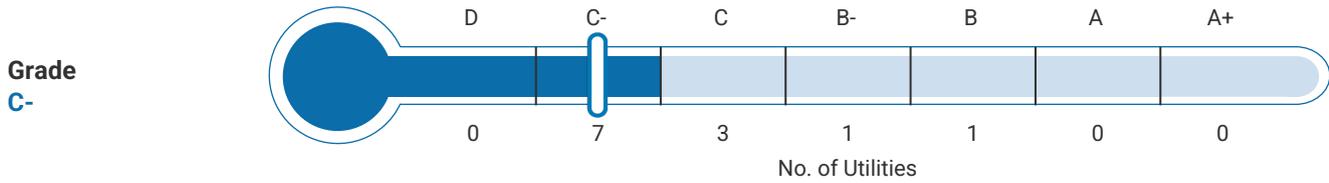
3. Compared to FY 2021.

## Key Insights

- Nagaland PD score improved from -2.5 (10<sup>th</sup> Ratings) to 6.8 (11<sup>th</sup> Ratings)
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Provisional accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

Nagaland PD achieved Rank 6 (out of 11 power departments), with Grade C- and Integrated Score of 6.8 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score



## Summary of Performance across Metrics

Integrated Score: 6.8 out of 100								
Base Rating Score: 10.0								
<b>Financial Sustainability</b>	<b>0.0</b>	<b>55</b>	<b>Performance Excellence</b>	<b>10.0</b>	<b>35</b>	<b>External Environment</b>	<b>0.0</b>	<b>10</b>
ACS – ARR gap (cash adjusted)	0.0	55	Distribution Loss (SERC approved)	0.0	10	Subsidy Realized (last 3 FYs)	0.0	6
			Billing Efficiency	0.0	10	Tariff Cycle Timelines	0.0	2
			Collection Efficiency	10.0	10	Auto Pass Through of Fuel Costs	0.0	2
			Corporate Governance	0.0	5			
Specific Disincentives: -3.3								
Tariff Cycle Delays	-2.3	-4.5	Tariff Independent of Subsidy	-1.0	-1			
Regulatory Assets	0.0	-5	Uncovered Revenue Gap (Current Year)	0.0	-4			

■ Allotted score

## Analysis of ACS-ARR Gap (In INR / kWh)



ACS-ARR Gap – Weighted Average for 11<sup>th</sup> Ratings: **5.71 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **2% (stable)**



## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap improved marginally from 5.83 in FY21 to 5.72 in FY22
    - PBT (excl. Other Subsidy) improved from (-300%) of Revenue booked in FY21 to (-239%) in FY22
  - AT&C losses have improved from 45.1% in FY21 to 41.3% in FY22 – driven majorly by improvement in Billing Efficiency (from 54.9% in FY21 to 58.7% in FY22)
- 

### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap (cash adjusted) is significantly high – currently at 5.72
  - Negative PBT ((-239%) of Revenue booked)

#### Performance Excellence

- Distribution losses may be reduced – current losses are higher than SERC-approved levels
- Billing Efficiency can be improved – currently at 58.7% (for max. score, expected is 90%+)
- Separated and audited accounts can be made available for the power department

#### External Environment

- Automatic pass-through of fuel costs can be implemented
- Regulatory support needed for issuance of True-up Order for FY21

#### Specific Disincentives

- Regulator can determine cost-reflective Tariffs (currently tariffs are calculated after considering subsidy)
- Tariff and True-up Orders, Tariff Petition should be issued within the rating timeline



# Electricity Department of Government of Puducherry (Puducherry PD)



## Overview of Puducherry PD<sup>1</sup>

Ownership	Power Department
Nature of operations	Transmission, Distribution
Area of operations	UT of Puducherry
Number of customers	NA
Gross input energy	NA
Total energy sold	NA
Revenue booked <sup>2</sup>	NA
Profit after tax	NA

1. Values are from the latest available data.

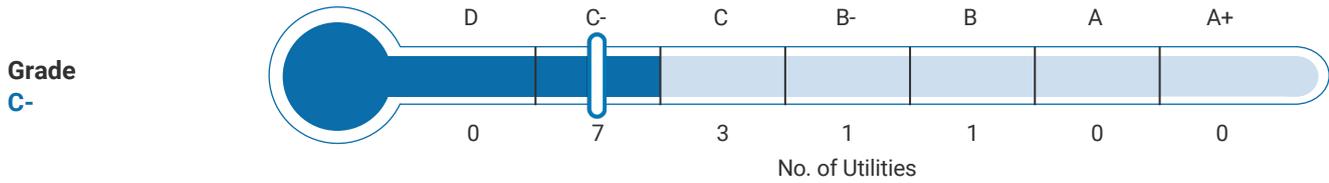
2. Revenue booked does not include other regulatory income.

## Key Insights

- Puducherry PD score declined from 43.8 (10<sup>th</sup> Ratings) to -1.0 (11<sup>th</sup> Ratings)
- Puducherry PD, has not submitted their financials for the 11<sup>th</sup> Integrated Ratings Exercise. Hence, no marks have been awarded for metrics linked to financial accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

Puducherry PD achieved Rank 9 (out of 11 power departments), with Grade C- and Integrated Score of -1.0 out of 100. Further, it exhibited a Declining Trajectory w.r.t. Integrated Score



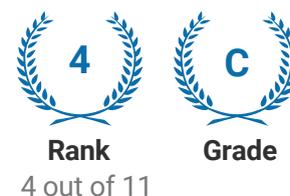
## Summary of Performance across Metrics

Integrated Score: -1.0 out of 100					
Base Rating Score: 4.0					
Financial Sustainability		Performance Excellence		External Environment	
0.0	55	0.0	35	4.0	10
ACS – ARR gap (cash adjusted)	0.0	55	Distribution Loss (SERC approved)	0.0	10
			Billing Efficiency	0.0	10
			Collection Efficiency	0.0	10
			Corporate Governance	0.0	5
			Subsidy Realized (last 3 FYs)	0.0	6
			Tariff Cycle Timelines	2.0	2
			Auto Pass Through of Fuel Costs	2.0	2
Specific Disincentives: -5.0					
Tariff Cycle Delays	-0.5	-4.5	Tariff Independent of Subsidy	0.0	-1
Regulatory Assets	-5.0	-5	Uncovered Revenue Gap (Current Year)	0.0	-4

■ Allotted score

# Power Department, Government of Sikkim

## (Sikkim PD)



### Overview of Sikkim PD<sup>1</sup>

Ownership	Power Department
Nature of operations	Distribution and Transmission
Area of operations	State of Sikkim
Number of customers	NA
Gross input energy	1,216 MU (-2% change) <sup>3</sup>
Total energy sold	1,041 MU (-3% change) <sup>3</sup>
Revenue booked <sup>2</sup>	INR 448 Cr (-6% change) <sup>3</sup>
Profit after tax	INR -78 Cr

1. Values are from the latest available data.

2. Revenue booked does not include other regulatory income.

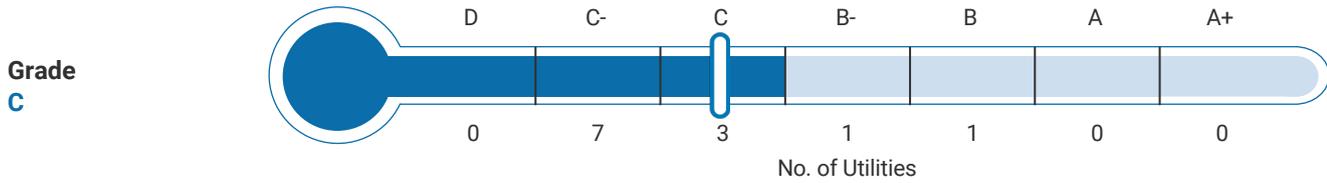
3. Compared to FY 2021.

### Key Insights

- Sikkim PD score improved significantly from -0.3 (10<sup>th</sup> Ratings) to 32.7 (11<sup>th</sup> Ratings)
- Major improvement in ACS-ARR Gap Distribution Loss Actual as compared to Approved, Collection Efficiency metrics in FY22
- Data for FY22 for the 11<sup>th</sup> Rating Exercise sourced from Provisional accounts

## Performance in 11<sup>th</sup> Annual Rating Exercise

Sikkim PD achieved Rank 4 (out of 11 utilities), with Grade C and Integrated Score of 32.7 out of 100. Further, it exhibited an Improving Trajectory w.r.t. Integrated Score

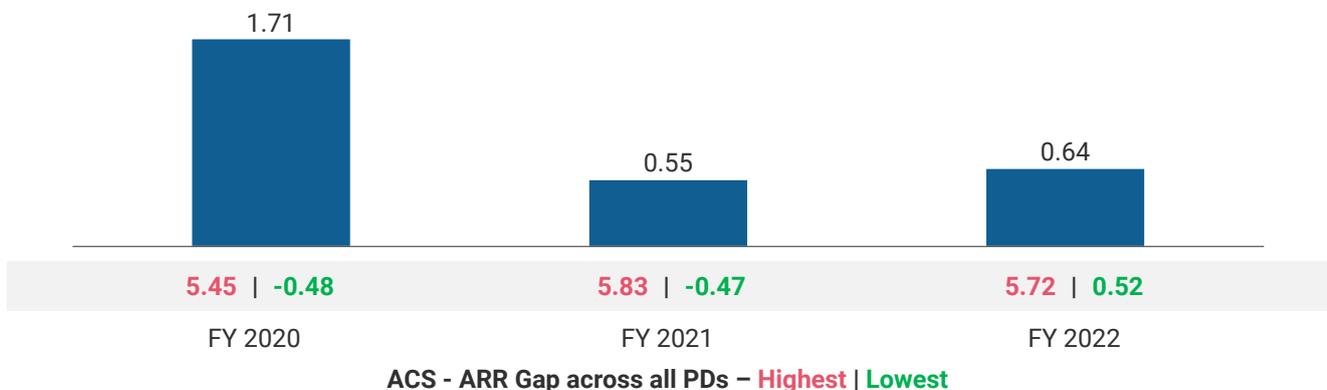


## Summary of Performance across Metrics

Integrated Score: 32.7 out of 100					
Base Rating Score: 36.7					
<b>Financial Sustainability</b>	<b>14.8</b>	<b>55</b>	<b>Performance Excellence</b>	<b>17.9</b>	<b>35</b>
<b>External Environment</b>	<b>4.0</b>	<b>10</b>			
ACS – ARR gap (cash adjusted)	14.8	55	Distribution Loss (SERC approved)	6.4	10
			Billing Efficiency	1.5	10
			Collection Efficiency	10.0	10
			Corporate Governance	0.0	5
			Subsidy Realized (last 3 FYs)	0.0	6
			Tariff Cycle Timelines	2.0	2
			Auto Pass Through of Fuel Costs	2.0	2
Specific Disincentives: -4.0					
Tariff Cycle Delays	0.0	-4.5	Tariff Independent of Subsidy	0.0	-1
Regulatory Assets	0.0	-5	Uncovered Revenue Gap (Current Year)	-4.0	-4

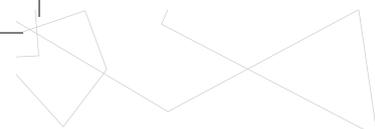
■ Allotted score

## Analysis of ACS-ARR Gap (In INR / kWh)



ACS-ARR Gap – Weighted Average for 11<sup>th</sup> Ratings: **0.78 INR / kWh**

ACS-ARR Gap – 2-Year CAGR: **-39% (improving)**



## Relative Performance, Key Strengths and Improvement Areas

### Relative Performance (w.r.t FY21)

- ACS-ARR Gap deteriorated from 0.55 in FY21 to 0.64 in FY22
    - PBT (excl. Other Subsidy) declined from (-14%) of Revenue booked in FY21 to (-17%) in FY22
  - AT&C losses improved from 25.9% in FY21 to 22.2% in FY22 – driven majorly by improvement in Billing Efficiency (from 74.1% in FY21 to 77.8% in FY22)
- 

### Key Strengths

#### External Environment

- Discom implements automatic pass-through of fuel costs

#### Performance Excellence

- Collection Efficiency at 100%
- 

### Key Improvement Areas

#### Financial Sustainability

- ACS-ARR Gap (cash adjusted) is significantly high – currently at 0.64
  - Negative PBT ((-17%) of Revenue booked)

#### Performance Excellence

- Separated and audited accounts can be made available for the power department

#### Specific Disincentives

- Regulator can address the uncovered revenue gap – currently at 16% of ARR

# APPENDIX

## 3. Scoring methodology

### A. Scoring Methodology for State & Private Distribution Utilities

S. No.	Parameter	Score
<b>A</b>	<b>Financial Sustainability</b>	<b>75</b>
<b>1</b>	<b>ACS-ARR Gap (cash adjusted)</b>	<b>35</b>
	Note: 3 years weighted average metric to be used for scoring with following weights: 60% for FY22, 25% for FY21 and 15% for FY20	
	If equal to or less than -0.05, full marks to be awarded, else separate absolute & trajectory scoring applicable	35
	Marks for absolute level	28
	Greater than -0.05 up to 0.9	Proportionate
	Greater than 0.9	0
	Marks for trajectory (applicable when latest ACS-ARR gap (cash adjusted) is less than or equal to 1.4)	7
	1 Year AGR of ACS-ARR gap (cash adjusted) is less than -5%	3.5
	2 Year CAGR of ACS-ARR gap (cash adjusted) is less than -5%	3.5
<b>2</b>	<b>Days Receivable</b>	<b>3</b>
	Equal to or less than 60 days	3
	Greater than 60 days up to 120 days	Proportionate
	Greater than 120 days	0
<b>3</b>	<b>Days Payable to GenCos &amp; TransCos</b>	<b>10</b>
	Equal to or less than 45 days	10
	Greater than 45 days but less than or equal to 60 days	8
	Greater than 60 days but less than or equal to 75 days	6
	Greater than 75 days	0
<b>4</b>	<b>Adjusted Quick Ratio</b>	<b>10</b>
	Note: 3 years weighted average metric to be used for scoring with following weights: 60% for FY22, 25% for FY21 and 15% for FY20	
	Greater than or equal to 1	10
	Less than 1 up to 0.4	Proportionate
	Less than 0.4	0

S. No.	Parameter	Score
<b>5</b>	<b>Debt Service Coverage Ratio (cash adjusted)</b>	<b>10</b>
	Note: 3 years weighted average metric to be used for scoring with following weights: 60% for FY22, 25% for FY21 and 15% for FY20	
	Greater than or equal to 1.1	10
	Less than 1.1 up to 0.6	Proportionate
	Less than 0.6	0
<b>6</b>	<b>Leverage (Debt/EBITDA) (cash adjusted)</b>	<b>7</b>
	Note: 3 years weighted average metric to be used for scoring with following weights: 60% for FY22, 25% for FY21 and 15% for FY20	
	Greater than 0 up to 5	7
	Greater than 5 up to 15	Proportionate
	Greater than 15 or less than 0	0
<b>B</b>	<b>Performance Excellence</b>	<b>13</b>
<b>1</b>	<b>Distribution Loss (SERC approved)</b>	<b>2</b>
	Marks for ratio of actual distribution loss to SERC approved distribution loss	
	Equal to or less than 1	2
	Greater than 1 up to 1.2	Proportionate
	Greater than 1.2	0
<b>2</b>	<b>Billing Efficiency</b>	<b>5</b>
	Note: 3 years weighted average metric to be used for scoring with following weights: 60% for FY22, 25% for FY21 and 15% for FY20	
	If greater than or equal to 92%, full marks to be awarded, else separate absolute & trajectory scoring applicable	5
	Marks for absolute level	4
	Less than 92% up to 82%	Proportionate
	Less than 82%	0
	Marks for trajectory (applicable when latest Billing Efficiency is greater than or equal to 80%)	1
	1 Year AGR of Billing Efficiency is greater than 5%	0.5
	2 Year CAGR of Billing Efficiency is greater than 5%	0.5
<b>3</b>	<b>Collection Efficiency</b>	<b>5</b>
	Note: 3 years weighted average metric to be used for scoring with following weights: 60% for FY22, 25% for FY21 and 15% for FY20	
	If greater than or equal to 99.5%, full marks to be awarded, else separate absolute & trajectory scoring applicable	5
	Marks for absolute level	4

S. No.	Parameter	Score
	Less than 99.5% up to 91%	Proportionate
	Less than 91%	0
	Marks for trajectory (applicable when latest Collection Efficiency is greater than or equal to 90%)	1
	If FY22 Collection Efficiency is greater than or equal to 95%, full marks to be awarded for trajectory, else, below rules are applicable	
	1 Year AGR of Collection Efficiency is greater than 5%	0.5
	2 Year CAGR of Collection Efficiency is greater than 5%	0.5
<b>4</b>	<b>Corporate Governance</b>	<b>1</b>
	Note: Board with 2 Independent Directors (as per Statutory Requirement) are assigned a score of 0.75 Marks	
	Board with 1/3 <sup>rd</sup> independent directors	1
<b>C</b>	<b>External Environment</b>	<b>12</b>
<b>1</b>	<b>Subsidy Realized (Last 3 FYs)</b>	<b>4</b>
	Greater than or equal to 100%	4
	Greater than 80% up to 100%	Proportionate
	Less than 80%	0
<b>2</b>	<b>Loss Takeover by State Government</b>	<b>3</b>
	If profitable before loss takeover, full marks to be awarded	3
	Greater than or equal to 50% of losses before takeover	3
	Greater than 0% up to 50% of losses before takeover	Proportionate
	Equal to 0% of losses before takeover	0
<b>3</b>	<b>Government Dues (Last 3 FYs)</b>	<b>3</b>
	Equal to 0%	3
	Greater than 0% up to 50%	Proportionate
	Greater than 50%	0
<b>4</b>	<b>Tariff Cycle Timelines</b>	<b>1</b>
	Tariff order for the next year (T+1) issued by 31 Mar of the recently closed FY (T) for which audited accounts should be available	0.5
	True-up order for tariffs of the year (T-1) issued by 31 Mar of the recently closed FY (T) for which audited accounts should be available	0.5
<b>5</b>	<b>Auto Pass Through of Fuel Costs</b>	<b>1</b>
	If fuel costs are recovered on at least a quarterly basis	1
	If fuel costs are not recovered or if SERC does not allow fuel costs adjustment	0
<b>D</b>	<b>Specific Disincentives</b>	
	Note 1: Cumulative impact on the score from all Specific Disincentives will be capped at -10 marks, except for Red card metrics	

S. No.	Parameter	Score
	Note 2: Red card metrics are: 1) Auditor's adverse opinion 2) Availability of audited accounts 3) Default to banks / FIs	
	Disincentive score for these metrics is outside the -10 marks limit for Specific Disincentives and results in ineligibility for A+, A grades	
<b>1</b>	<b>Auditor's Adverse Opinion</b>	<b>-15</b>
	For overall adverse opinion by auditor	-15
	If the utility submits a provisional account for the evaluation year (T) and if the last submitted audited account had an adverse opinion, then the adverse opinion disincentive will continue to apply	-15
<b>2</b>	<b>Availability of Audited Accounts</b>	<b>-15</b>
	Note 1: Maximum disincentive for this metric will be capped at -15	
	Note 2: If audited accounts are received before the rating date, this metric will not be treated as a red card and the overall capping limits for Specific Disincentives will apply	
	Note 3: Lenders may review previously awarded disincentives on receipt of audited accounts to make the process more dynamic	
	Note 4: Timeline for submission of audited accounts is 30 <sup>th</sup> November for FY 2022 for the 11 <sup>th</sup> Integrated Rating Exercise	
	Post Nov 30 of the next FY (T+1), audited accounts for the last closed FY (T) should be available, else monthly disincentive applicable	-0.5 per month
	If the utility only provides provisional accounts for the last closed FY (T) till the rating date, additional disincentive applicable	-5 additional
	If the utility does not have audited accounts for the previously closed 2 FYs (i.e., T-1 and T-2), then -5 marks additional disincentive per year applicable	-5 per year additional (capped at -10)
<b>3</b>	<b>Default to Banks / FIs</b>	<b>-15</b>
	Conditions for frequency of default	
	If there is default to any 1 lender in auditor's report	25% of yearly disincentives
	If there is default to any 2 lenders in auditor's report	50% of yearly disincentives
	If there is default to any 3 or more lenders in auditor's report	100% of yearly disincentives
	Yearly disincentives for frequency of default	
	Default in last closed FY (T)	-4
	Default in year (T-1)	-3
	Default in year (T-2)	-2
	Default to PFC or REC including quantum of default	
	If there is any default to PFC or REC as of last quarter closing of ongoing FY (T+1)	-4

S. No.	Parameter	Score
	Default amount to PFC or REC in FY (T+1) greater than 5% of outstanding loan to PFC or REC	-2
	Note 1: Provision for rating review by lenders on defaults as part of a dynamic rating process as under:	
	a. If a loan to PFC or REC is under SMA-2 (i.e., overdue for 61 days or more) as of last quarter closing, then it will result in direct downgrade to D	
	b. Subsequent to the release of the ratings, if the utility is placed under SMA-2 by any banks or financial institutions, then it will result in direct downgrade to D	
	c. Such Grade D may be reviewed after such default has been cured by the utility subsequently.	
<b>4</b>	<b>Audit Qualifications</b>	<b>-4</b>
	Employee related liabilities / statutory dues qualification	-1
	Non-adherence to Ind-AS qualification	-1
	Not a going concern qualification	-2
<b>5</b>	<b>Governance</b>	<b>-3</b>
	Note: Discom is not required to have an audit committee if the holding company has already appointed an Audit committee	
	Operational Audit Committee – if not available	-1
	Exclusive Managing Director and Director Finance – if not available	-1
	Quarterly accounts duly approved by Board of Directors or Audit Committee – if not available	-1
<b>6</b>	<b>Tariff Cycle Delays</b>	<b>-4.5</b>
	Delay in filing of tariff petition for year (T+2) post Nov 30 of year (T+1)	-0.25 for every 2-month delay
	Delay in issue of tariff order for the year (T+1) post Mar 31 of the year for which audited accounts should be available (T)	-0.25 for every 2-month delay
	Delay in issue of true-up order for year (T-1) post Mar 31 of the year for which audited accounts should be available (T)	-0.25 for every 2-month delay
<b>7</b>	<b>Tariff Independent of Subsidy</b>	<b>-1</b>
	If regulator considers subsidy while determining tariffs (not cost reflective)	-1
<b>8</b>	<b>Uncovered Revenue Gap (Current Year)</b>	<b>-4</b>
	Less than 1% of SERC approved ARR in latest tariff order	0
	1% of SERC approved ARR in latest tariff order	-1
	Greater than 1% and less than 4% of SERC approved ARR in latest tariff order	Proportionate
	Greater than or equal to 4% of SERC approved ARR in latest tariff order	-4
<b>9</b>	<b>Regulatory Assets</b>	<b>-5</b>
	Note 1: Cumulative balances of regulatory assets should be liquidated in 7 years. The cumulative regulatory assets balance as of FY21 SERC orders is considered as the baseline for liquidation	

S. No.	Parameter	Score
	Note 2: Liquidation target as compared to FY21 levels will progressively increase by 1/7 <sup>th</sup> each year. Example, target for FY22 is 1/7 <sup>th</sup> reduction, for FY23 is 2/7 <sup>th</sup> reduction and so on, as compared to FY21 baseline	
	Note 3: If the cumulative balance of regulatory assets does not decrease from FY 21 SERC orders, then the utility will not be eligible for A+, A and B grades	
	If cumulative regulatory assets balance as of latest FY SERC orders has reduced by target reduction for the FY or more	0
	If cumulative regulatory assets balance as of latest FY SERC orders has reduced from FY21 baseline level but the reduction in balance is less than the target reduction for the FY	Proportionate
	If cumulative regulatory assets balance as of latest FY SERC orders is the same as FY21 baseline level or higher	-5

Sources of information include audited accounts, input data submitted by utilities, tariff filings & orders, true-up filings & orders, business plans, state budgetary plans, State Govt orders/notifications, subsidy release particulars, PFC & REC default information, etc.

## B. Scoring Methodology for Power Departments

S. No.	Parameter	Score
<b>A</b>	<b>Financial Sustainability</b>	<b>55</b>
<b>1</b>	<b>ACS-ARR Gap (cash adjusted)</b>	<b>55</b>
	Note: 3 years weighted average metric to be used for scoring with following weights: 60% for FY22, 25% for FY21 and 15% for FY20	
	If equal to or less than -0.05, full marks to be awarded, else separate absolute & trajectory scoring applicable	55
	Marks for absolute level	44
	Greater than -0.05 up to 1	Proportionate
	Greater than 1	0
	Marks for trajectory (applicable when latest ACS-ARR gap (cash adjusted) is less than or equal to 1.4)	11
	1 Year AGR of ACS-ARR gap (cash adjusted) is less than -5%	5.5
	2 Year CAGR of ACS-ARR gap (cash adjusted) is less than -5%	5.5
<b>B</b>	<b>Performance Excellence</b>	<b>35</b>
<b>1</b>	<b>Distribution Loss (SERC approved)</b>	<b>10</b>
	Marks for ratio of actual distribution loss to SERC approved distribution loss	
	Equal to or less than 1	10
	Greater than 1 up to 1.3	Proportionate
	Greater than 1.3	0

S. No.	Parameter	Score
<b>2</b>	<b>Billing Efficiency</b>	<b>10</b>
	Note: 3 years weighted average metric to be used for scoring with following weights: 60% for FY22, 25% for FY21 and 15% for FY20	
	If greater than or equal to 90%, full marks to be awarded, else separate absolute & trajectory scoring applicable	10
	Marks for absolute level	8
	Less than 90% up to 75%	Proportionate
	Less than 75%	0
	Marks for trajectory (applicable when latest Billing Efficiency is greater than or equal to 70%)	2
	1 Year AGR of Billing Efficiency is greater than 5%	1
	2 Year CAGR of Billing Efficiency is greater than 5%	1
<b>3</b>	<b>Collection Efficiency</b>	<b>10</b>
	Note: 3 years weighted average metric to be used for scoring with following weights: 60% for FY22, 25% for FY21 and 15% for FY20	
	If greater than or equal to 99.5%, full marks to be awarded, else separate absolute & trajectory scoring applicable	10
	Marks for absolute score	8
	Less than 99.5% up to 90%	Proportionate
	Less than 90%	0
	Marks for trajectory (applicable when latest Collection Efficiency is greater than or equal to 90%)	
	If FY22 Collection Efficiency is greater than or equal to 95%, full marks to be awarded for trajectory, else, below rules are applicable	
	1 Year AGR of Collection Efficiency is greater than 5%	1
	2 Year CAGR of Collection Efficiency is greater than 5%	1
<b>4</b>	<b>Corporate Governance</b>	<b>5</b>
	Availability of separated and audited accounts for the Power Department	5
<b>C</b>	<b>External Environment</b>	<b>10</b>
<b>1</b>	<b>Subsidy Realized (Last 3 FYs)</b>	<b>6</b>
	Greater than or equal to 100%	6
	Greater than 80% up to 100%	Proportionate
	Less than 80%	0
<b>2</b>	<b>Tariff Cycle Timelines</b>	<b>2</b>
	Tariff order for the next year (T+1) issued by 31 Mar of the recently closed FY (T) for which audited accounts should be available	1
	True-up order for tariffs of the year (T-1) issued by 31 Mar of the recently closed FY (T) for which audited accounts should be available	1

S. No.	Parameter	Score
<b>3</b>	<b>Auto Pass Through of Fuel Costs</b>	<b>2</b>
	If fuel costs are recovered on at least a quarterly basis	2
	If fuel costs are not recovered or if SERC does not allow fuel costs adjustment	0
<b>D</b>	<b>Specific Disincentives</b>	
	Note: Cumulative impact on the score from all Specific Disincentives will be capped at -5 marks	
<b>1</b>	<b>Tariff Cycle Delays</b>	<b>-4.50</b>
	Delay in filing of tariff petition for year (T+2) post Nov 30 of year (T+1)	-0.25 for every 2-month delay
	Delay in issue of tariff order for the year (T+1) post Mar 31 of the year for which audited accounts should be available (T)	-0.25 for every 2-month delay
	Delay in issue of true-up order for year (T-1) post Mar 31 of the year for which audited accounts should be available (T)	-0.25 for every 2-month delay
<b>2</b>	<b>Tariff Independent of Subsidy</b>	<b>-1</b>
	If regulator considers subsidy while determining tariffs (not cost reflective)	-1
<b>3</b>	<b>Uncovered Revenue Gap (Current Year)</b>	<b>-4</b>
	Less than 1% of SERC approved ARR in latest tariff order	0
	1% of SERC approved ARR in latest tariff order	-1
	Greater than 1% and less than 4% of SERC approved ARR in latest tariff order	Proportionate
	Greater than or equal to 4% of SERC approved ARR in latest tariff order	-4
<b>4</b>	<b>Regulatory Assets</b>	<b>-5</b>
	Note 1: Cumulative balances of regulatory assets should be liquidated in 7 years. The cumulative regulatory assets balance as of FY21 SERC orders is considered as the baseline for liquidation	
	Note 2: Liquidation target as compared to FY21 levels will progressively increase by 1/7 <sup>th</sup> each year. Example, target for FY22 is 1/7 <sup>th</sup> reduction, for FY23 is 2/7 <sup>th</sup> reduction and so on, as compared to FY21 baseline	
	If cumulative regulatory assets balance as of latest FY SERC orders has reduced by target for the FY or more	0
	If cumulative regulatory assets balance as of latest FY SERC orders has reduced from FY21 baseline level but the reduction in balance is less than the target reduction for the FY	Proportionate
	If cumulative regulatory assets balance as of latest FY SERC orders is the same as FY21 baseline level or higher	-5

Sources of information include audited accounts, input data submitted by power departments, tariff filings & orders, true-up filings & orders, state budgetary plans, State Govt orders/notifications, subsidy release particulars, etc.

# APPENDIX

## 4. Definitions

No.	Parameter	Definition
1	ACS – ARR Gap (cash adjusted)	<ul style="list-style-type: none"> <li>• <b>ACS - ARR gap (cash adjusted)</b> = Average Cost of Supply (ACS) - Average Revenue Realized (ARR)</li> <li>• <b>Average Cost of Supply (ACS)</b> = Total pre-tax expenditure / Gross Input Energy</li> <li>• <b>Average Revenue Realized (ARR)</b> = Revenue from operations + other income + tariff/revenue subsidy received + other revenue/subsidy received (excluding capital grants under UDAY or other schemes) + gross opening receivables (current + non-current) - gross closing receivables (current + non-current) / Gross Input Energy</li> </ul>
2	Days Receivable	<ul style="list-style-type: none"> <li>• Net trade receivables (current + non-current incl. electricity duty/cess) * 365 / (Revenue from operations incl. electricity duty/cess)</li> <li>• <b>Note:</b> For newly formed utilities which have not completed 1 full year of operations, the numerator of the formula is multiplied by the number of days of operation instead of 365 days</li> </ul>
3	Days Payable to GenCos & TransCos	<ul style="list-style-type: none"> <li>• (Liability for purchase of power (current + non-current) + Liability for purchase of fuel (coal, oil, gas, etc.) + Liability to railways for coal receipts) * 365 / (Generation costs + Cost of power purchased + Transmission and SLDC charges)</li> <li>• <b>Note:</b> For newly formed utilities which have not completed 1 full year of operations, the numerator of the formula is multiplied by the number of days of operation instead of 365 days</li> </ul>
4	Adjusted Quick Ratio	<ul style="list-style-type: none"> <li>• (Total current assets - Inventories - Net current tax assets - Assets classified as held for sale - Regulatory assets (current) - Pre-paid expenses and advances - Receivables &gt; 3 months) / Total current liabilities</li> </ul>
5	Debt Service Coverage Ratio (cash adjusted)	<ul style="list-style-type: none"> <li>• Cash Adjusted EBITDA / (Interest &amp; Finance Charges charged to operations + current maturities of long-term loans + interest accrued &amp; due (state, bonds, banks/other FIs))</li> <li>• <b>Cash Adjusted EBITDA</b> = Cash adjusted Revenue (As used in ARR) - Generation Costs - Purchase of Power - Transmission &amp; SLDC Charges - Employee Cost - Repairs &amp; Maintenance - Admin &amp; General Costs</li> </ul>
6	Leverage (Debt/ EBITDA) (cash adjusted)	<ul style="list-style-type: none"> <li>• (Total non-current loans + current loans (incl. interest accrued &amp; due)) / Cash Adjusted EBITDA</li> <li>• <b>Cash Adjusted EBITDA</b> = Cash adjusted Revenue (As used in ARR) - Generation Costs - Purchase of Power - Transmission &amp; SLDC Charges - Employee Cost - Repairs &amp; Maintenance - Admin &amp; General Costs</li> </ul>
7	Distribution Loss (SERC approved)	<ul style="list-style-type: none"> <li>• (1 – Billing Efficiency) / SERC Approved Distribution Loss for the year</li> <li>• If tariff order does not exist for the year, then the last available tariff order will be used to determine SERC approved Distribution Loss</li> </ul>
8	Billing Efficiency	<ul style="list-style-type: none"> <li>• As per CEA Methodology with reference to circular no. CEA-GO-17(11)/1/2018/ DP&amp;R Div/408-530</li> <li>• <b>Billing Efficiency</b> = Energy Sold / Net Input Energy</li> <li>• <b>Energy Sold</b> = Energy Sold to all categories of consumers excluding units of Energy Traded/Inter-State Sales</li> <li>• <b>Net Input Energy</b> = Energy Generated - Auxiliary Consumption + Energy Purchased (Gross) – Energy Traded/ Inter State Sales – Transmission Losses</li> <li>• <b>Note:</b> Open access/ wheeling units shall not be included in Net Input Energy and Energy Sold while calculating Billing Efficiency</li> </ul>

No.	Parameter	Definition
9	<b>Collection Efficiency</b>	<p>As per CEA Methodology with reference to circular no. CEA-GO-17(11)/1/2018/DP&amp;R Div/408-530</p> <p><b>Collection Efficiency</b> = (Adjusted Revenue from Sale of Energy on Subsidy Received basis + Opening Debtors for Sale of Energy – Adjusted Closing Debtors for Sale of Energy) / (Revenue from Sale of Energy)</p> <p><b>Adjusted Revenue from Sale of Energy on Subsidy Received basis</b> = Revenue from Sale of Energy to all categories of consumers (including Subsidy Booked) but excluding Revenue from Energy Traded / Inter-State Sales – Subsidy Booked + Subsidy Received against Subsidy Booked during the Year</p> <p><b>Opening Debtors for sale of Energy</b> = As shown in Receivable Schedule (Without deducting provisions for doubtful debtors)</p> <p><b>Adjusted Closing Debtors for Sale of Energy</b> = Closing debtors for Sale of Energy as shown in Receivable Schedule (Without deducting provisions for doubtful debts) + Any amount written off during the year directly from Closing Debtors for Sale of Energy</p> <p><b>Revenue from Sale of Energy</b> = Revenue from Sale of Energy to all categories of consumers (including Subsidy Booked) but excluding Revenue from Energy Traded Inter-State Sales</p> <p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>Total Tariff Subsidy received during the year including arrears (if any) shall also be included while calculating Adjusted Revenue from Sale of Energy on Subsidy Received basis</li> <li>Unbilled Revenue shall not be considered as Debtors</li> <li>No adjustment shall be made in revenue from sale of energy on account of unbilled revenue</li> </ol>
10	<b>Subsidy Realized (Last 3 FYs)</b>	<ul style="list-style-type: none"> <li>Aggregate subsidy received (Last 3 FYs) / Aggregate subsidy booked (Last 3 FYs)</li> </ul>
11	<b>Loss Takeover by State Govt.</b>	<ul style="list-style-type: none"> <li>Loss takeover by State Govt. / Total loss without considering loss taken over by State Govt.</li> </ul>
12	<b>Government Dues (Last 3 FYs)</b>	<ul style="list-style-type: none"> <li>Aggregate Government dues (Last 3 FYs) / Total amount billed to govt (Last 3 FYs)</li> </ul>
13	<b>Tariff Cycle Timelines</b>	<ul style="list-style-type: none"> <li>T+1 – Current ongoing FY</li> <li>T – Recently closed year for which the audited accounts should be available</li> </ul>
14	<b>Uncovered Revenue Gap (Current Year)</b>	<ul style="list-style-type: none"> <li>Current year uncovered revenue gap in ARR as a % of Total approved ARR</li> </ul>
15	<b>Regulatory Assets</b>	<ul style="list-style-type: none"> <li>Regulatory asset balance (Current FY) / Regulatory asset balance (FY 21)</li> </ul>
16	<b>Cash adjustment due to Trade Receivables</b>	<ul style="list-style-type: none"> <li>Cash adjustment due to Trade Receivables: Gross opening receivables (current + non-current) - gross closing receivables (current + non-current)</li> <li>Change in Cash adjustment due to Trade Receivables (as % of Revenue booked): Cash adjustment due to Trade Receivable (T) / Revenue booked (T) - Cash adjustment due to Trade Receivable (T-1) / Revenue booked (T-1)</li> </ul>
17	<b>PBT (excl. Other Subsidy)</b>	<ul style="list-style-type: none"> <li>Profit Before Tax – other revenue/subsidy received</li> <li>Captures actual operational performance of utility, by excluding Non-tariff Subsidy provided by the government</li> </ul>

# APPENDIX

## 5. Glossary of terms

Term	Description
ACS	Average Cost of Supply
AGR	Annual Growth Rate
ARR (in relation to ACS-ARR gap)	Average Revenue Realized
ARR (in relation to SERC approved ARR)	Aggregate Revenue Requirement
AT&C Loss	Aggregate Technical & Commercial Loss
BEE	Bureau of Energy Efficiency
CAGR	Compounded Annual Growth Rate
CEA	Central Electricity Authority
DSCR	Debt service coverage ratio
EBITDA	Earnings before Interest, Tax, Depreciation & Amortization
EMI	Equated monthly installments
FIs	Financial Institutions
GenCo	Generation Company
GSDP	Gross state domestic product
GW	Gigawatts
HT	High Tension
Ind-AS	Indian Accounting Standards
LPS	Electricity (Late Payment Surcharge and Related Matters) Rules, 2022
LT	Low Tension
MoP	Ministry of Power, Government of India
MU	Million Units
MW	Megawatts
NPA	Non-Performing Asset
PD	Power Department
PFC	Power Finance Corporation Limited
RDSS	Revamped Distribution Sector Scheme
REC	REC Limited
SERC	State Electricity Regulatory Commission
SLDC	State Load Dispatch Centre
TransCo	Transmission Company
UDAY	Ujwal DISCOM Assurance Yojana





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## Ministry of Power

Government of India

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