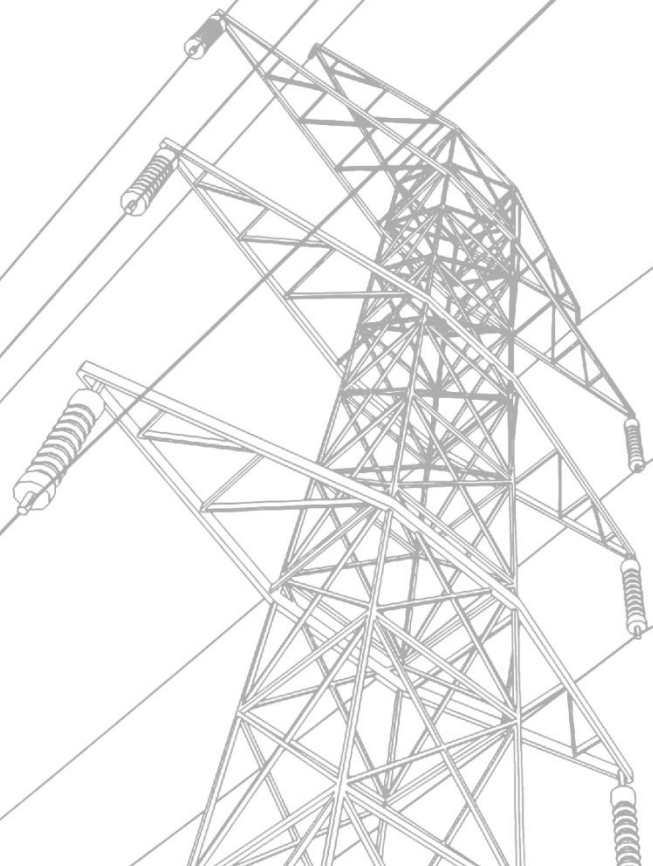




A Study of **Central Region Discoms: Performance Trends and Insights**

May 2026



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Editorial

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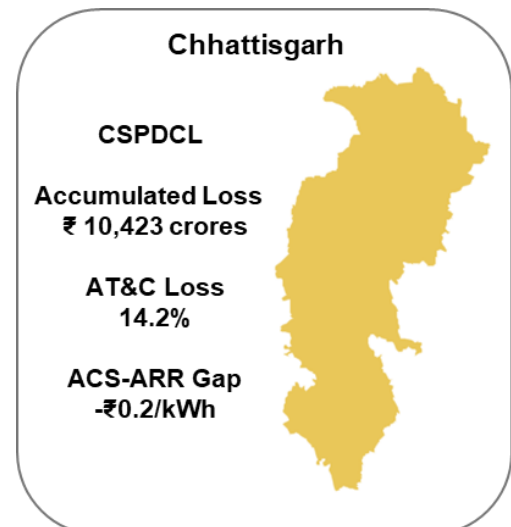
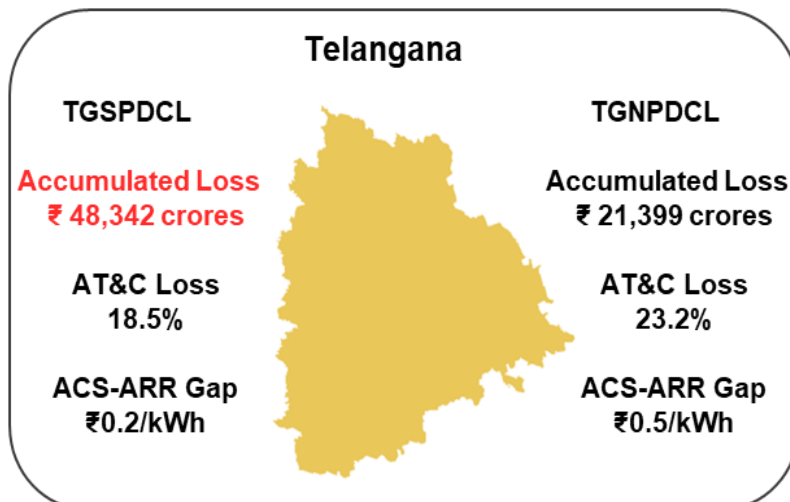
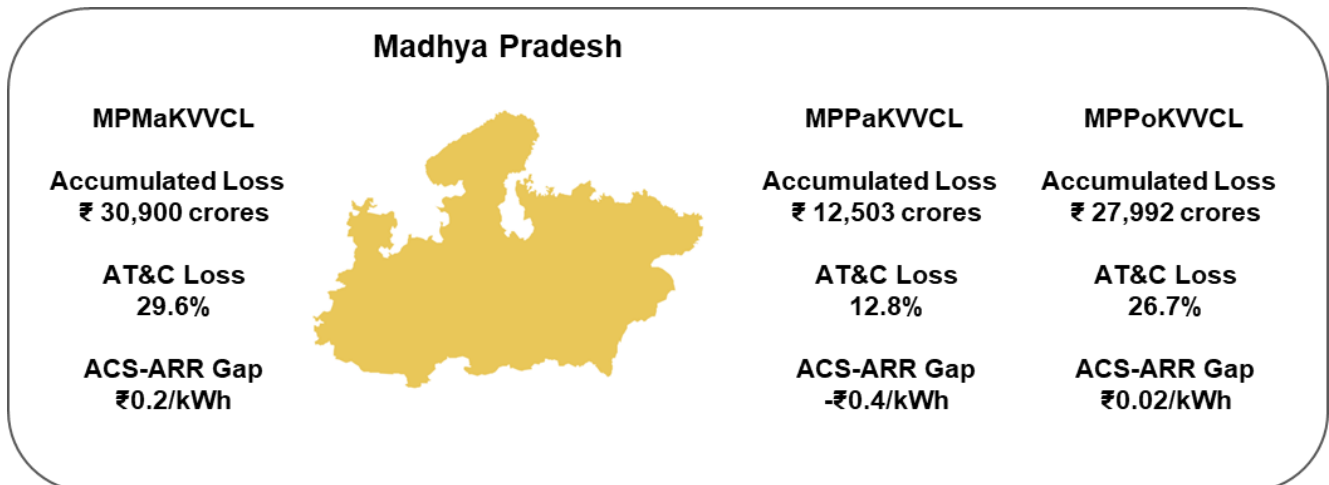
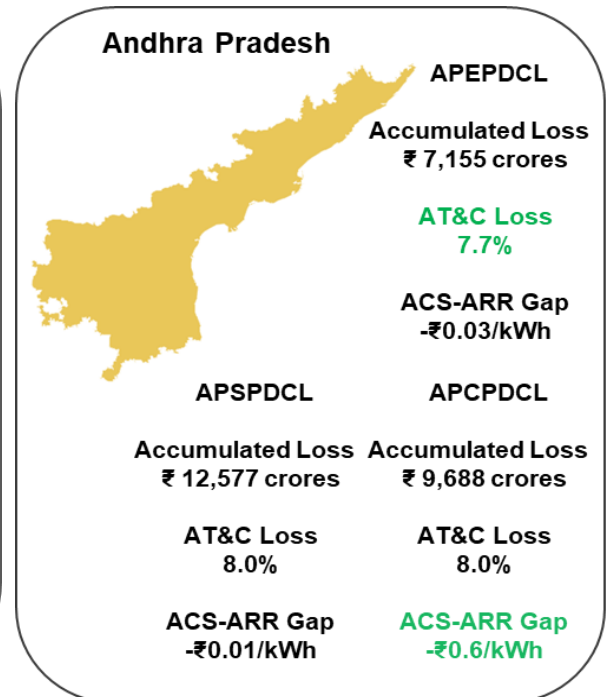
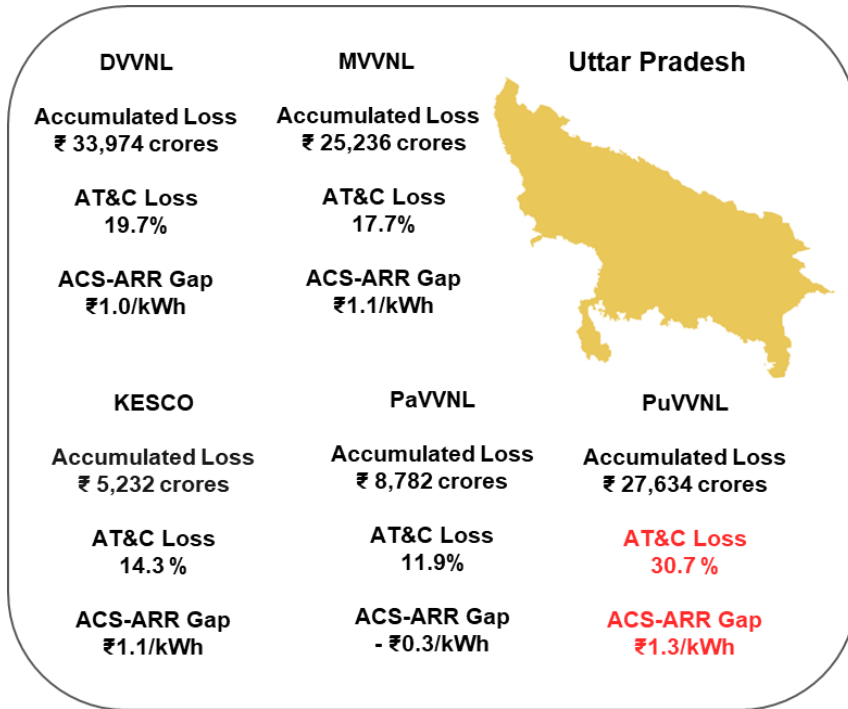
A STUDY OF CENTRAL REGION DISCOMS: PERFORMANCE TRENDS AND INSIGHTS

Power distribution in Central India operates within one of the country's most expansive and structurally complex landscapes. The region encompasses some of India's most resource-rich states alongside vast agrarian heartlands, tribal belts and rapidly urbanising corridors, each with its own distinct set of infrastructural and operational demands. Utilities here face twin pressures: serving growing urban agglomerations and energy-intensive industrial clusters, while extending reliable and affordable access to deeply rural, remote and historically underserved communities.

This primer on distribution utilities in Central India provides a comprehensive, structured overview of the power distribution sector across Central Region states (Andhra Pradesh, Chhattisgarh, Madhya Pradesh, Telangana and Uttar Pradesh).

Designed as a ready reference, it offers insights into the current performance and ongoing developments in distribution utilities, helping stakeholders and auditors better understand the regional challenges and opportunities shaping the sector.





Green: Lowest Value; Red: Highest Value;

The data corresponds to the latest year, 2024-25;

ACS-ARR gap is on the Input Energy basis.

1. A QUICK GLANCE AT CONSUMER DETAILS

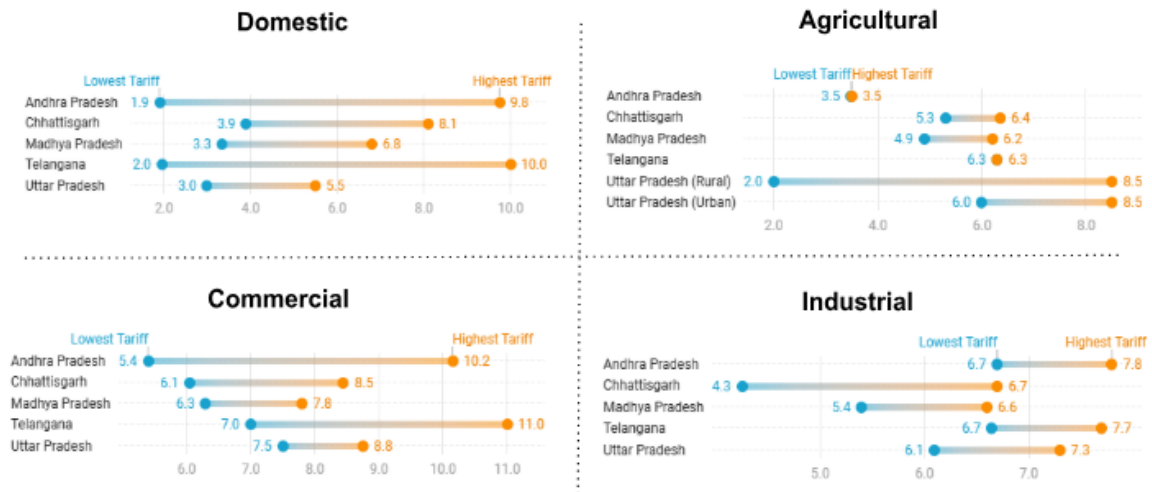
1.1. Category-wise Electricity Sales (MU) for the year 2024-25

Consumer Category	Andhra Pradesh	Chhattisgarh	Madhya Pradesh	Telangana	Uttar Pradesh
Agriculture	16,231	6,030	31,512	24,319	24,023
Commercial	6,173	3,643	4,424	9,340	15,952
Domestic	19,837	7,350	20,308	17,472	61,321
Industrial	25,657	12,822	18,140	19,911	21,437
Others	5,155	4,246	2,140	3,006	3,725
Total	73,053	34,091	76,524	74,048	126,458
Dominant Category	Industrial (35%)	Industrial (38%)	Agriculture (41%)	Agriculture (33%)	Domestic (49%)

Source: India Climate and Energy Dashboard (ICED);

MU: Million Units

1.2. State-wise Tariff Comparison for Different Consumer Categories for the year 2024-25 (in ₹/kWh)



Source: ICED

- In the Industrial category, tariff patterns vary across the central states. While Chhattisgarh and Madhya Pradesh have tariffs reaching about ₹ 6.7/kWh, states such as Andhra Pradesh, Telangana and Uttar Pradesh begin their industrial tariffs at around the same level, indicating a comparatively higher tariff baseline in these states.
- Andhra Pradesh & Telangana show the widest spread, with domestic tariffs ranging from ₹1.9 or 2/kWh to ₹9.8 or 10/kWh, reflecting substantial variation across domestic consumer categories.
- Compared to other consumer categories, the industrial category exhibits a relatively narrower tariff range, indicating lower tariff dispersion across industrial consumer groups.

2. PERFORMANCE REVIEW: A SPOTLIGHT ON DISCOMS

OPERATIONAL AND FINANCIAL HEALTH

2.1. Operational Performance for the year 2024-25

Parameters	Andhra Pradesh	Chhattisgarh	Madhya Pradesh	Telangana	Uttar Pradesh
AT&C Loss* (%)	7.87	14.25	22.76	19.84	19.54
Billing Efficiency (%)	92.81	85.75	78.16	91.54	86.29
Collection Efficiency (%)	99.26	100	98.83	87.56	93.24

Source: ICED

2.2. Financial Health for the year 2024-25

Parameters	Andhra Pradesh	Chhattisgarh	Madhya Pradesh	Telangana	Uttar Pradesh
Accumulated Profit/(Loss) [₹ Crore]	(29,420)	(10,423)	(71,394)	(69,741)	(99,297)
Profit/(Loss)* [₹ Crore]	1,180	915	456	(2,462)	(10,785)
Total Outstanding Debt [₹ Crore]	77,583	5,428	49,239	59,230	61,395
Regulatory Assets [₹ Crore]	-	-	-	-	(4)
Average Cost of Supply (ACoS) [₹/kWh]	8.11	5.95	5.87	7.37	7.65
Average Revenue Realised (ARR) [₹/kWh]	8.26	6.15	5.91	7.09	6.94
ACoS-ARR Gap# [₹/kWh]	-0.15	-0.20	-0.04	0.28	0.71

Source: ICED

*Profit/(Loss) with Tariff Subsidy Received, Excluding Revenue Grant under UDAY for loan takeover and Regulatory Income.

#The ACS-ARR Gap is based on the input energy.

3. A SNAPSHOT OF RATINGS AND SCORES FOR CENTRAL-REGION DISCOMS

State	DISCOM	2020-21	2021-22	2022-23	2023-24	2024-25
Andhra Pradesh	Andhra Pradesh Central Power Distribution Company Limited	C	C	B-	C	B
	Andhra Pradesh Eastern Power Distribution Company Limited	C-	B	A	A	B
	Andhra Pradesh Southern Power Distribution Company Limited	C-	C	B-	C	B
Chhattisgarh	Chhattisgarh State Power Distribution Company Limited	C	C	B-	B	A
Madhya Pradesh	Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited	C-	C	B	B-	C
	Madhya Pradesh Pashchim Kshetra Vidyut Vitaran Company Limited	C	B-	A	A	A
	Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited	C-	C	B-	C	B-
Telangana	Telangana State Northern Power Distribution Company Limited	C-	C-	C	C-	C-
	Telangana State Southern Power Distribution Company Limited	C-	C-	C	C-	C-
Uttar Pradesh	Dakshinanchal Vidyut Vitran Nigam Limited	C-	C-	C-	C-	B-
	Madhyanchal Vidyut Vitran Nigam Limited	C-	C-	C-	C-	B-
	Pashchimanchal Vidyut Vitran Nigam Limited	C	B-	B	B	A+
	Purvanchal Vidyut Vitaran Nigam Limited	C-	C-	C-	C-	C
	Kanpur Electricity Supply Company	C-	C-	B-	B-	B-

N.A. C- C B- B A A+

Source: Annual Integrated Rating and Ranking of Power Distribution Utilities, PFC

1. Most **Central DISCOMs** have historically received **low ratings**, typically ranging from **C- to B**, although utilities such as APEPDCL, CSPDCL, MP Paschim and PVVNL have improved their ratings over time.
2. **Telangana DISCOMs** have consistently remained among the lowest-ranked utilities, largely falling in the **C- and C** categories. In 2024-25, **TGNPDCL** scored **8** points, ranked last, while **TGSPDCL** scored **11.42** points, ranked third from the bottom.
3. The persistently weak financial and operational performance of Telangana DISCOMs continues to keep them among the poorest-performing utilities in the country.
4. **Chhattisgarh** gradually improved due to increase in smart meters resulting in reduction of AT&C losses. Also, the DISCOM reported profit in the last two years

4. MAPPING OPERATIONAL AND FINANCIAL PROGRESS OF CENTRAL- REGION UTILITIES

4.1 ANDHRA PRADESH: Andhra Pradesh Central Power Distribution Company Limited (APCPDCL), Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL) and Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL)

The power distribution sector in Andhra Pradesh is managed through three state-owned DISCOMs — APSPDCL, APEPDCL & APCPDCL. Each is responsible for electricity distribution across designated geographical regions and districts, ensuring efficient power supply, operational management and consumer service delivery.

Until 2020, APSPDCL catered to a very large geographical area, which posed operational, logistical and administrative challenges. To improve management efficiency and enable better monitoring of distribution operations, APCPDCL was carved out of APSPDCL.

At present, APSPDCL primarily covers the districts of Tirupati, Chittoor, Annamayya, SPSR Nellore and YSR Kadapa; APCPDCL caters to NTR District, Guntur, Palnadu, Bapatla, Prakasam and Krishna districts; while APEPDCL serves the northern coastal districts including Visakhapatnam.

Power Purchase and Resource Planning: APSPDCL

Following the bifurcation and creation of APCPDCL, APSPDCL recorded its highest-ever electricity consumption in 2021-22. The post-pandemic recovery in economic activity, along with increased usage of cooling appliances, drove a significant rise in electricity demand during the year. At the same time, delays in the commissioning certain generation projects, including the 800 MW Vijayawada Thermal Power Station (VTPS) Stage V and 800 MW Sri Damodaram Sanjeevaiah Thermal Power Station (SDSTPS) Stage-II units, originally expected in 2020-21, as well as delays in hydel projects, affected the availability of domestic generation capacity¹.

¹ <https://www.apcpdcl.in/pdf/Tariff%20%20for%20FY2021-22.pdf>

In order to meet the growing demand, the DISCOM increased its procurement of renewable energy, supported by the relatively lower cost of such power sources. In 2021-22, power procured from solar, wind, small hydro, other renewable sources and large hydro together amounted to 16,869.28 MU, accounting for around 63% of the total power purchase of 26,886.82 MU. The power purchase cost from renewable sources ranged between ₹. 2/kWh to ₹3/kWh during the said year².

The share of solar and wind power in the overall procurement mix increased up to 2021-22; however, it declined in the subsequent years, while procurement costs from these sources rose compared to 2021-22. Solar power declined from 29% in 2021-22 to 13% in 2024-25, while the share of wind power fell from 28% to 8% over the same period.

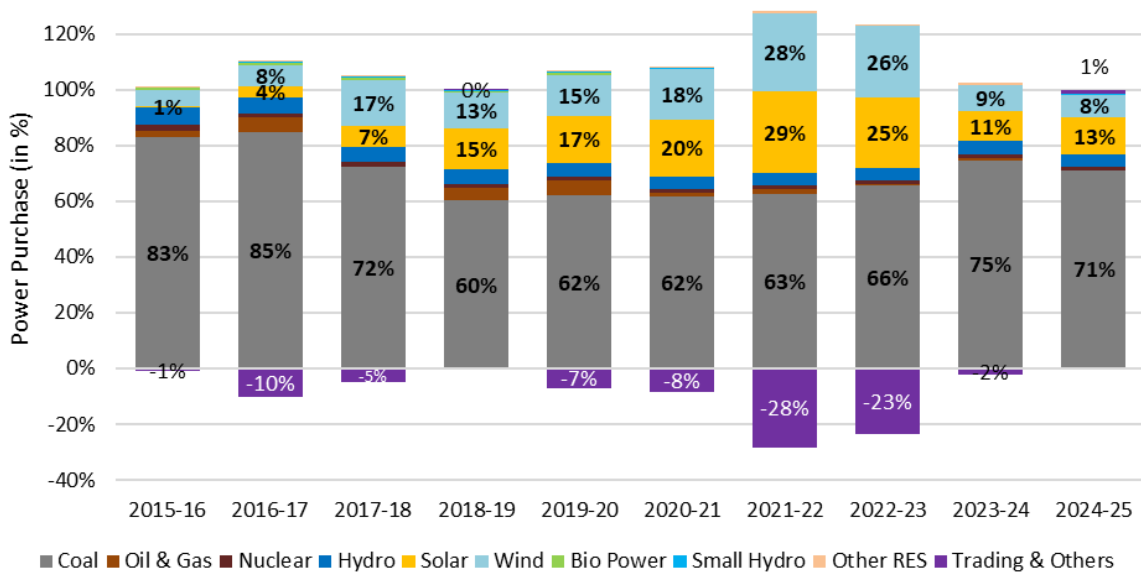


Figure 1: Trends of Share of Power Purchase Quantum (%), APSPDCL

Source: ICED

² ICED

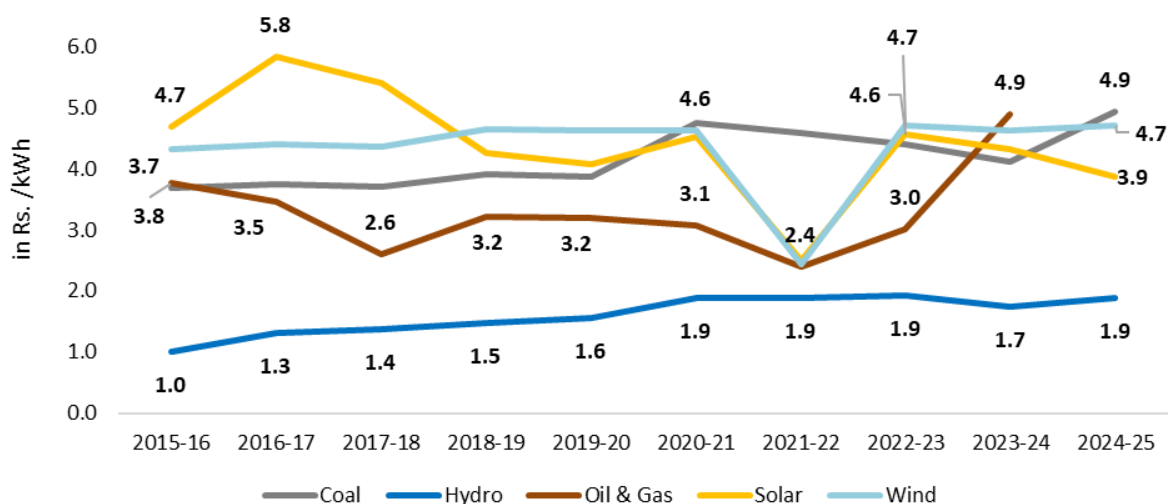


Figure 2: Trends of Share of Power Purchase Cost (₹/kWh), APSPDCL
Source: ICED

In 2023-24 and 2024-25, APSPDCL increased its reliance on coal-based power (more than 70% of share in the total power mix) to ensure reliable supply amid rising electricity demand and the intermittent nature of renewable energy sources. In 2024-25, coal contributed around 71% of total power procurement, while short-term purchases accounted for nearly 1% for the first time, due to increase in demand.

APGENCO’s thermal power plants with long term Power Purchase Agreements (PPAs), are operating significantly below their threshold Plant Load Factor (PLF). While the threshold is typically 80%, many plants are struggling at 50-70%, forcing DISCOMs to buy expensive power through short-term purchases³.

Resource adequacy remains a key concern. Delays in the planned 7,000 MW solar procurement programme due to transmission corridor constraints have reduced the expected available capacity to 3,675 MW. Also, according to a 2023 analysis by Grid India, Andhra Pradesh needs approximately 860 MW of battery storage to meet a 10% demand shortfall. Without adequate storage, the state is often compelled to purchase higher-cost power from the market to meet demand⁴.

Also, the DISCOMs’ proposal to procure 470 MW of thermal power is considered necessary because it is base-load power and the relevant financial consideration is the market cost during the critical non-solar hours, not the historical weighted-average cost.

³ https://aperc.gov.in/admin/upload/RSTO_FY2026-27.pdf

⁴ https://aperc.gov.in/admin/upload/RSTO_FY2026-27.pdf

Furthermore, one of the State Advisory Committee (SAC) members suggested that resource plans be developed on a block-wise basis to strengthen resource adequacy assessments and improve the reliability of power injection into the grid.

Coal power plants must also be made flexible to complement intermittent renewable energy. This involves increasing the technical minimum to 40% or 55% as per CEA guidelines and implementing better ramp rates⁵.

Accumulated Losses and Borrowings of AP DISCOMs

As the AP DISCOMs reported a marginal profit during 2024-25, their overall financial position remains weak, weighed down by high accumulated losses, pending arrears and rising debt levels. As of March 2025, the combined accumulated losses of the three AP DISCOMs stood at ₹29,420 crore. Among them, APSPDCL accounted for the highest share at ₹ 12,577 crore, followed by APCPDCL at ₹ 9,688 crore and APEPDCL at ₹ 7,155 crore.

The state’s total borrowings in 2024-25 stood at ₹77,584 crore, out of which ₹ 35,687 crore for APSPDCL, ₹ 20,693 crore for APEPDCL and ₹ 21,204 crore for APCPDCL.

The DISCOMs also continue to carry substantial payment arrears to power generation companies. Delays in clearing these dues attract additional late payment surcharge liabilities, further straining their already limited financial resources⁶.



Figure 3 : Trends of Accumulated Profits/Losses (in ₹ Crore) of AP Discoms
Source: ICED

⁵ https://aperc.gov.in/admin/upload/RSTO_FY2026-27.pdf

⁶ https://aperc.gov.in/admin/upload/RSTO_FY2026-27.pdf

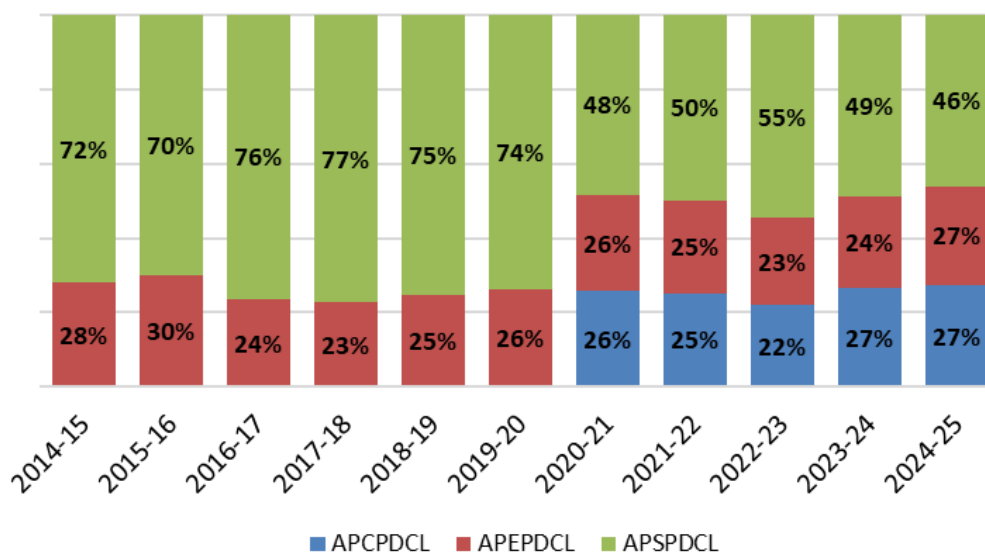


Figure 4 : Percentage share of Total Borrowings by all three AP Discoms
Source: ICED

Beyond the loans, the DISCOMs face high transmission and distribution losses and despite investing in better infrastructure, the data shows a different picture. While the losses are attributed to a high proportion of low-voltage supplies, a significant share is likely due to electricity theft and general operational inefficiencies within the DISCOMs. High T&D losses raise DISCOM expenditures, adding to the government's subsidy burden and potentially driving up consumer tariffs. There is a clear need to reduce these losses and ensure that infrastructure investments yield financial and operational benefits⁷.

4.2. CHHATTISGARH: Chhattisgarh State Power Distribution Company Limited (CSPDCL)

Chhattisgarh has emerged as a “power hub of India”, backed by its extensive coal resources, thermal power plants and industrial growth. The state holds 85.3 billion tonnes of coal reserves as of 2024, making it the third-largest coal bearing state in India after Jharkhand and Odisha, and is responsible for 9.4% of India’s total power generation⁸ from all sources as of 2025-26.

Chhattisgarh has 64.7 lakhs electricity consumers, with domestic consumers accounting for 78.71% of the total. Distinctively, the industrial sector accounts for the highest share of electricity consumption at 60.27% as of 2023-24, the highest among all the states in the central region.¹

⁷ https://aperc.gov.in/admin/upload/RSTO_FY2026-27.pdf

⁸ <https://iced.niti.gov.in/energy/electricity/generation/power-generation>

CSPDCL has recorded a significant improvement in its overall performance in recent years. Sustained efforts have lifted its rating from C in 2021–22 to A in 2025–26. This turnaround reflects a steady decline in AT&C losses alongside a recovery in its financial position since FY 2023–24. AT&C losses have fallen consistently, from 24.96% in 2018–19 to 14.25% in 2024–25.

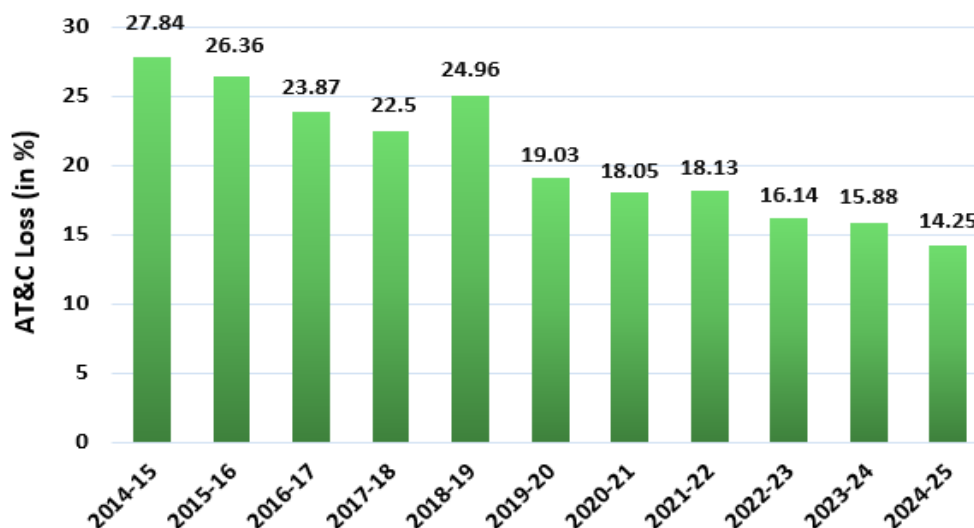


Figure 5 : AT&C Loss (%) Trends of CSPDCL

To reduce its operational losses, CSPDCL undertook some major initiatives. Among them, it invested approximately ₹230 crore to separate agricultural feeders and install feeder meters, enabling the capture of actual sales data.³ It also signed a tripartite MoU under the Ujjwal DISCOM Assurance Yojana (UDAY), which contributed to a reduction in its distribution losses.

Despite these operational improvements, actual distribution losses remained higher than the approved trajectory for several years.

The State Electricity Regulatory Commission has stated several times that the DISCOM’s reported distribution losses are unrealistic, as much of the billing reported specially for agricultural and domestic BPL consumers, is based on assessed values rather than actual meter readings.

Also, a huge portion of agriculture revenue comes from consumers under flat -rate Krishak Jeevan Jyoti Yojana, whose revenue realisation is low compared with metered consumers. In 2022–23, this under-recovery of energy charge translated into a loss of ₹ 446.13 crore, with the actual energy charge for flat-rate consumers ₹2.04/kWh below the approved rate.⁹ In addition, substantial amounts were spent

on outsourced meter-reading and merchandising services, for example, ₹ 89.39 crore in 2020-21 and ₹139.57 crore in 2022-23, however regular readings were not performed, and 20-30% of the meters remained unread.⁹

These factors, among others, were the key reasons for the DISCOM’s inability to meet their projected distribution loss targets. In 2021-22 and 2022-23, against their targets of 16.00% and 15.67% respectively, actual distribution losses below 33kV stood at 18.49% and 18.84%. As a result of these higher-than-targeted losses, the DISCOM had to absorb a financial impact on account of wasted energy: in 2022-23, an amount of ₹274.92 crore was deducted from its ARR.⁹

Financial Health of CSPDCL Discom

The DISCOM recorded a consistent trail of losses in the past few years due to high accumulated losses, pending arrears and rising debt.

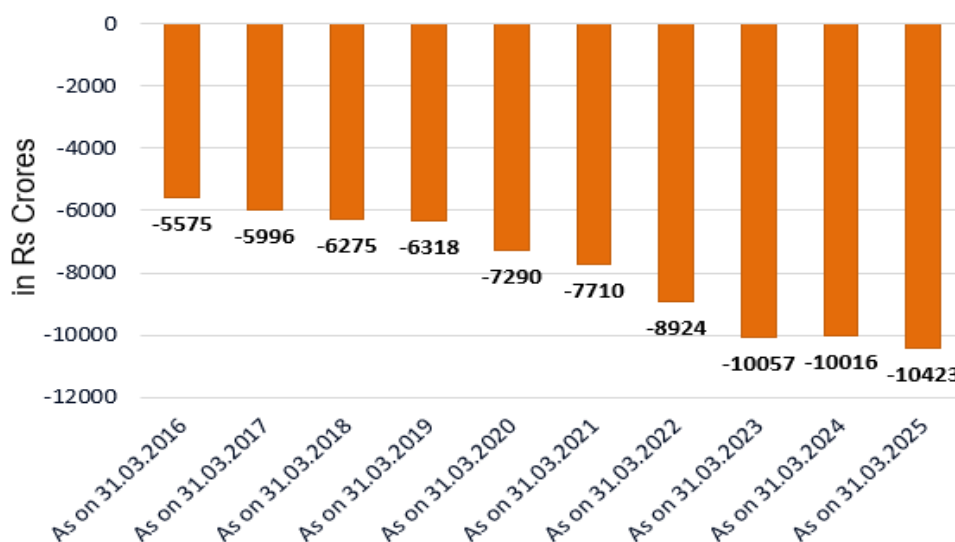


Figure 6 : Cumulative Profit & Loss Trend (in Rs Crores) of CSPDCL

Recently, however, it achieved a sustained turnaround, posting a standalone profit of ₹900 crore in 2023-24 against a loss of ₹1015 crore in 2022-23. The key driver of this shift was the revenue generated from aggressive sale of surplus power in the energy market from 2023-24 onwards.

⁹ https://cserec.gov.in/upload/upload_terrif_order/1718713223.pdf

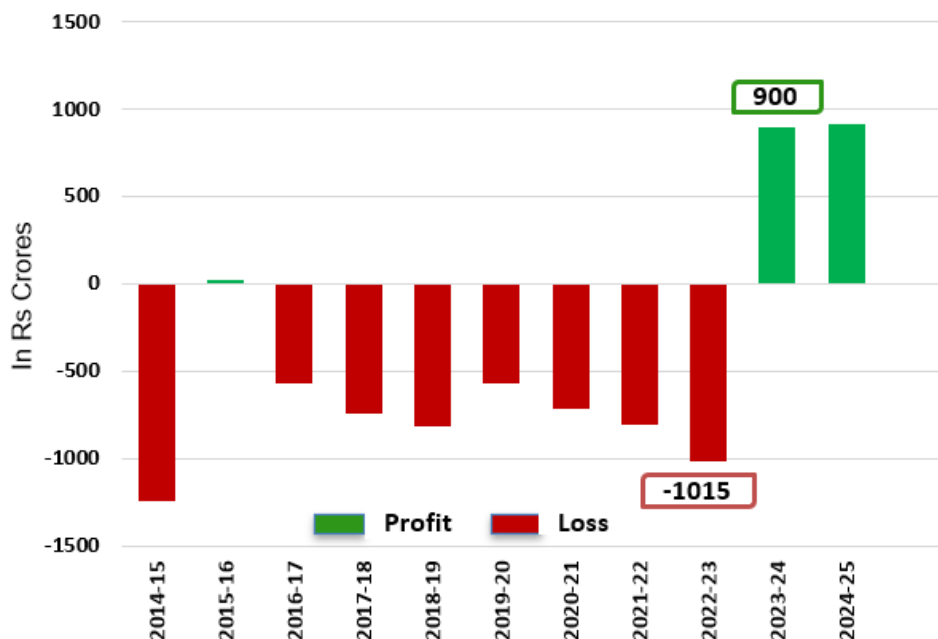


Figure 7 : Profit & Loss Trend (in Rs Crores) of CSPDCL
Source: ICED

Historically, CSPDCL sold power from its Marwa (ABVTPP) plant to Telangana through back to back agreements to sell power. However, it stopped its power supply from 2023-24 owing to long pending dues. Surplus power jumped 102%, from 3,379.06 MU in 2022-23 to 5,316.61 MU in 2023-24.⁸ Of this, 2,690.32 MU in 2022-23 and 5,316.61 MU in 2023-24 were sold through the power exchange. Correspondingly, revenue almost doubled, from ₹1,229.47 crore in 2022-23 to ₹2,270.80 crore in 2023-24. CSPDCL also benefited significantly through unscheduled interchange sale rate, which rose from ₹ 0.53/kWh to ₹ 2.57/kWh, contributing ₹ 173.21 crore to the total.⁹

The reasons for the profit in the following year differed: the Chhattisgarh government. provided a financial grant of ₹1,000 crore to offset the DISCOM's cumulative revenue deficit, and an increase of tariff ranging from 10 paise/kWh to 70 paise/kWh across categories produced the standalone surplus of the year.⁸ These practices together enabled CSPDCL to reverse its prolonged loss-making trend and maintain a standalone surplus over consecutive years.

4.3 MADHYA PRADESH: Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited (MPMKVVCL), Madhya Pradesh Pashchim Kshetra Vidyut Vitaran Company Limited (MPPKVVCL) and Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Limited (MPPoKVVCL)

Madhya Pradesh, located at the centre of India, has one of the most diverse and challenging power distribution landscapes in the country. The state is served by three distribution companies, MPMKVVCL (Central), MPPKVVCL (West) and MPPoKVVCL (East) – which together cater to approximately 2 crore consumers.

The agriculture sector forms the backbone of electricity sales in the state, with nearly 39 lakh agricultural connections accounting for almost 41% of total electricity sales. Domestic consumers constitute around 27%, the industrial and commercial categories make up 29% and the remaining 3% falls under others.

The pie charts below show the electricity sales mix across consumer categories in Madhya Pradesh DISCOMs. Agriculture is the dominant category in all three companies. Domestic consumers are the second-largest segment in MPMKVVCL and MPPoKVVCL, while industry ranks second in MPPKVVCL. Overall, agriculture and domestic consumers together account for 66–69% of total electricity sales.

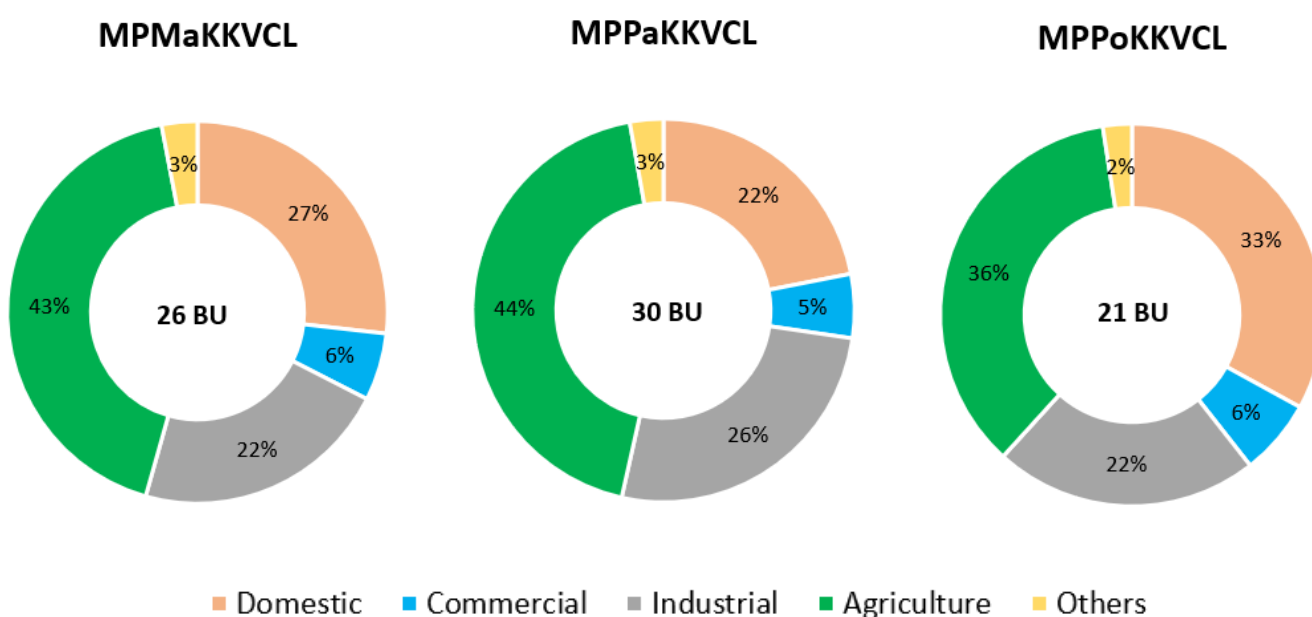


Figure 8 : Electricity Sales Share in Madhya Pradesh DISCOMs in 2024-25

Source: ICED

Operational Performance

Prior to 2021-22, the state’s AT&C losses remained stubbornly high, above 30% for most years. In 2021-22, Madhya Pradesh achieved a sharp 20 percentage point fall in AT&C losses through aggressive revenue protection and operational measures.

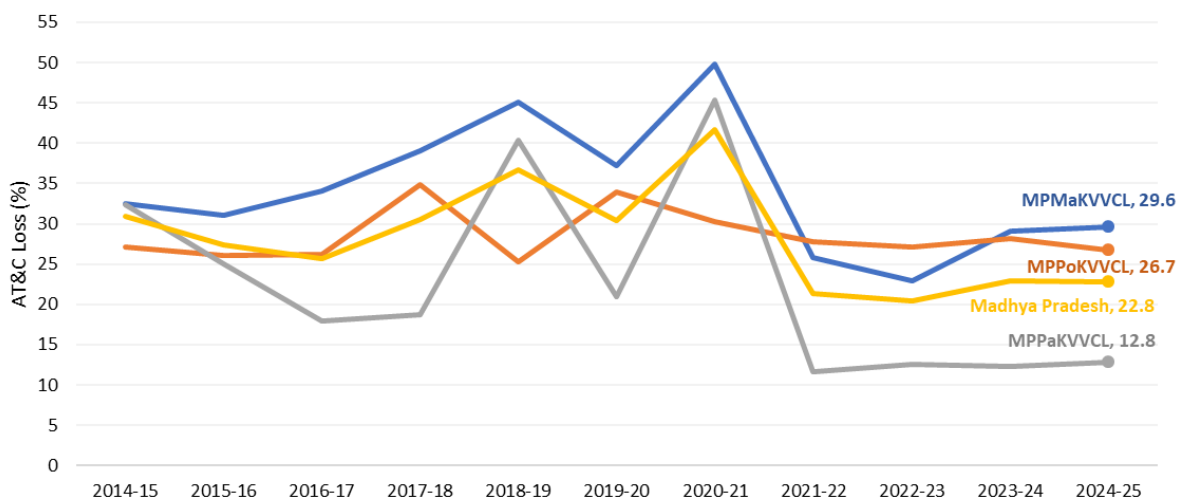


Figure 9 : Madhya Pradesh State and DISCOM’s AT&C Loss Trends from 2014-15 to 2024-25. Source: ICED

Key initiatives included aggressive vigilance drives, resulting in 1,01,000 theft cases being registered over two years, up from 72,000 earlier. The utilities adopted stricter coercive measures, such as property attachment against defaulters, shortened the billing cycle from 45 to 25 days for faster cash flow, and completed full consumer indexing for better monitoring. Over 52,860 defective meters were replaced, while accountability for collection was fixed on the field staff¹⁰.

Targeted actions also helped curb subsidy leakage by identifying and removing 74,271 ineligible domestic consumers from subsidised tariffs. Additionally, focused recovery drives from government departments alone yielded ₹854 crore. These reforms were significantly supported by the Revamped Distribution Sector Scheme (RDSS), under which the state was recognised nationally for its progress.

¹⁰<https://www.indiatoday.in/india-today-insight/story/how-mp-packed-a-power-punch-sharply-cut-transmission-losses-2334227-2023-02-13>

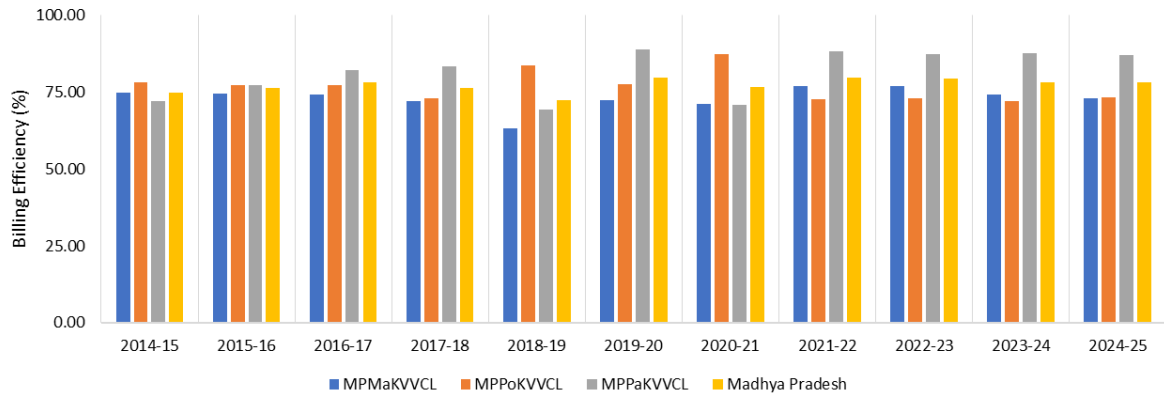


Figure 10 : Madhya Pradesh State and DISCOM’s Billing Efficiency Trends from 2014-15 to 2024-25.

Source: ICED

Despite these gains, billing efficiency remains below 75% in MPMKVCL and MPPoKVCL, contributing to continued high AT&C losses. East and Central DISCOMs, which serve larger rural and remote areas, face a higher share of unmetered agricultural and domestic connections, resulting in significant commercial losses.

Financial Overview:

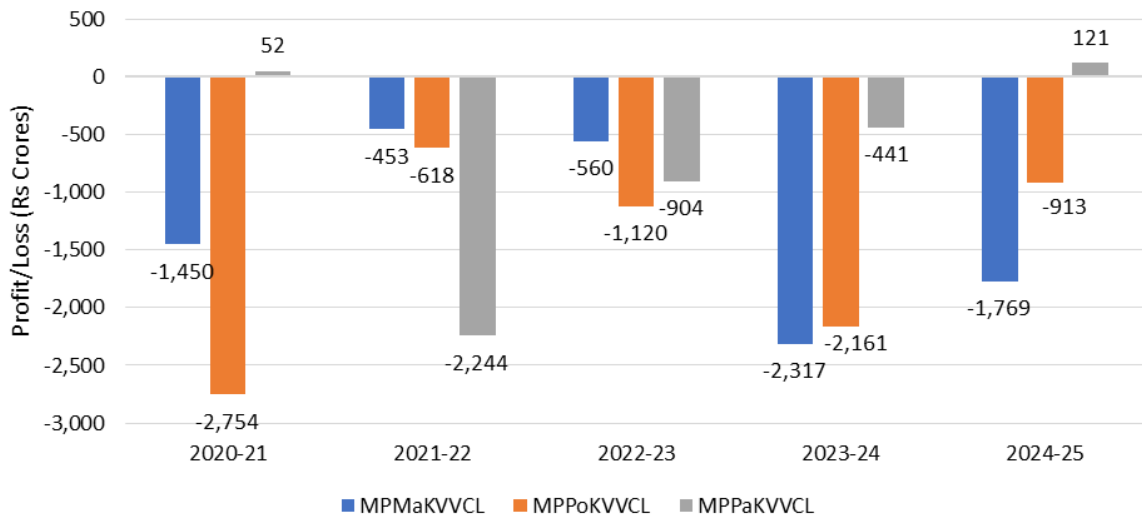


Figure 11 : Madhya Pradesh DISCOM’s Profit & Loss (Subsidy Booked basis) Trends

Source: PFC

MPMKVVCL (Central) and MPPoKVCL (East) have continued to report losses over the years. Serving predominantly rural and remote areas, both face structural challenges, including limited network upgrades, a high proportion of unmetered domestic and agricultural consumers, and the resultant under-billing, that drive up commercial losses.

The Central DISCOM, in particular, has been adversely impacted by significant delays in asset capitalisation. It carried out a prior period capitalisation of ₹906 crore, resulting in a one-time claim of ₹623 crore towards additional depreciation, Return on Equity (RoE) and interest costs – a recurring issue that distorts financials in subsequent years¹¹.

In contrast, MPPKVVCL (West) has shown a strong turnaround, posting a profit of ₹121 crore in 2024-25 compared to a loss of ₹441 crore in 2023-24. This improvement has been driven by lower AT&C losses, higher billable energy and successful implementation of smart metering.

The West DISCOM added 2.71 lakh new LT connections (including 1.02 lakh temporary irrigation pump connections)¹² and installed 5.32 lakh new smart meters (total 11.46 lakh cumulatively) in 2024-25. These initiatives have delivered tangible benefits: average monthly billing per consumer rose 13.04% in units and 20.57% in value (≈ ₹250 per bill)¹². The DISCOM also achieved ₹93 crore in subsidy savings by correctly identifying ineligible consumers (35% of consumers fall out of the subsidy range)¹². Real-time monitoring through smart meters enabled remote disconnection of 3.79 lakh defaulters (recovering ₹211.66 crore in arrears), leading to operational cost savings¹² of ₹5.15 crore.

Additionally, vigilance efforts resulted in 4,803 theft cases, with ₹259.7 crore realised (₹269.9 crore billed)¹². Cash collection grew 13.96%, from ₹11,355.77 in 2023-24 to ₹12,940.56 crore in 2024-25 and the DISCOM recovered 98% of Fuel Reimbursement Tariff (FRT) bills¹².

4.4. TELANGANA: Northern Power Distribution Company of Telangana Limited (TGNPDCL) and Southern Power Distribution Company of Telangana Limited (TGSPDCL)

Telangana's power distribution sector is served by two DISCOMs— TGSPDCL and TGNPDCL. Since the state's formation in 2014, the DISCOMs have played a key role in supporting rapid growth in electricity demand while expanding access to reliable power across urban and rural areas.

¹¹ https://mperc.in/uploads/petition_order_document/MPERC_PNo_138_2025_State_DISCOMs_True-up_Order_FY_2024_25.pdf

¹² https://www.mpwz.co.in/assets/img/pdf/Annual_Report_2024-25.pdf

TGSPDCL is the largest DISCOM in Telangana, serving 113 lakh consumers, including 14.4 lakh agricultural consumers, while TGNPDCL serves 68.8 lakh consumers, including 13.6 lakh agricultural consumers¹³.

Recently, Telangana has introduced its third state-owned DISCOM namely, Telangana Rythu Power Distribution Company Limited (TGRPDCL). The DISCOM will cover the entire state of Telangana operating mainly in agriculture and municipal water supply sectors¹⁴.

Financial Overview of TGSPDCL & TGNPDCL:

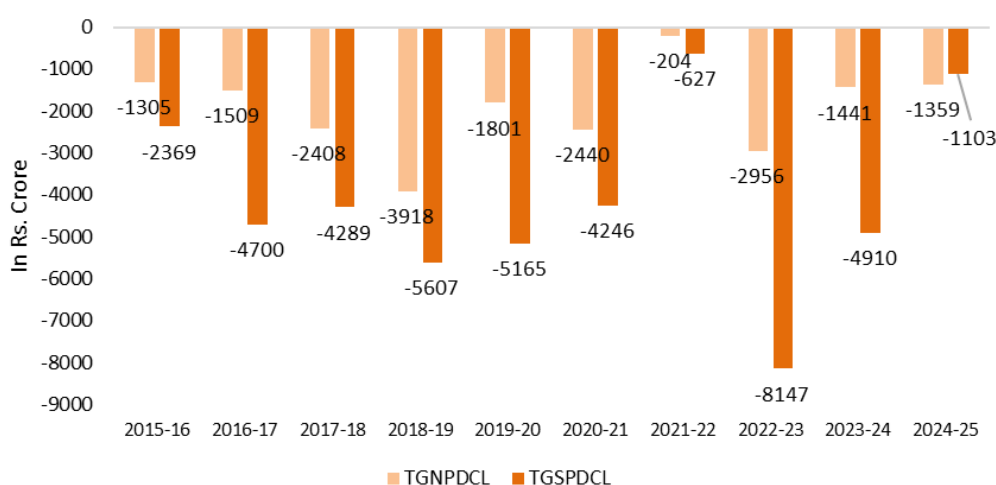


Figure 12 : Profit & Loss Trends of Telangana DISCOMs (in ₹ Crore)

Source: ICED

Both TGSPDCL and TGNPDCL have historically reported losses. However, their financial performance improved significantly in 2021-22, with the combined loss declining from ₹6,686 crore in 2020-21 to ₹831 crore. This improvement was primarily driven by the recognition of financial support received from the Government of Telangana under the UDAY scheme.

Under the scheme, the state government provided support to offset accumulated losses incurred between 2017-18 and 2020-21. TGNPDCL received a total of ₹2,697 crore, comprising ₹156 crore for 2017-18, ₹763 crore for 2018-19, ₹558 crore for 2019-20 and ₹1,220 crore for 2020-21. Similarly, TGSPDCL received ₹6,228 crore, including¹⁵ ₹392 crore for 2017-18, ₹1,242 crore for 2018-19, ₹2,470 crore for 2019-20 and ₹ 2,124 crore for 2020-21.

¹³ Annual Report 2023-24 of TGSPDCL & Annual report 2024-25 of TGNPDCL

¹⁴ <https://timesofindia.indiatimes.com/city/hyderabad/telangana-establishes-power-discom-for-agricultural-sector/articleshow/129468049.cms>

¹⁵ TGNPDCL Annual Report 2021-22

TGSPDCL recorded its highest loss of ₹8,147 crore in 2022-23, primarily due to a sharp increase in variable power purchase costs and employee expenses, including salary revisions and pension liabilities. During the same period, the utility's short-term borrowings rose significantly from ₹447.82 crore in 2021-22 to ₹2,593.99 crore in 2022-23, reflecting growing financial stress.

Subsequently, the loss declined to ₹4,910 crore in 2023-24 and further to ₹1,103 crore in 2024-25. The substantial improvement in 2024-25 was largely driven by higher-than-normal subsidy support from the state government, with TGSPDCL receiving ₹4,015 crore in subsidies during the year¹⁶.

Hence, the improvement in the DISCOMs' financial performance appears to be driven largely by state and central government support rather than by operational efficiency gains

Power Purchase Procurement – TGSPDCL

Coal-based power procurement remained largely stable at 67-73% over the years, except in 2016-17 (87%), supported by a relatively low procurement cost of around ₹4/kWh. The share of short-term and market purchases shows a fluctuating trend throughout the years, ranging from 24% in 2015-16 to 13% in 2020-21 to reaching 6% in 2024-25. Even at lower volumes, however, the continued reliance on costly short-term power purchases has pushed up overall procurement costs and, in turn, the Average Cost of Supply.

While solar power's share increased from 3% in 2016-17 to 13% in 2024-25, the procurement mix suggests there remains scope for more balanced and optimal utilisation of available energy resources.

¹⁶ TGSPDCL Annual Report 2021-22

A Study of Central Region Discoms: Performance Trends and Insights

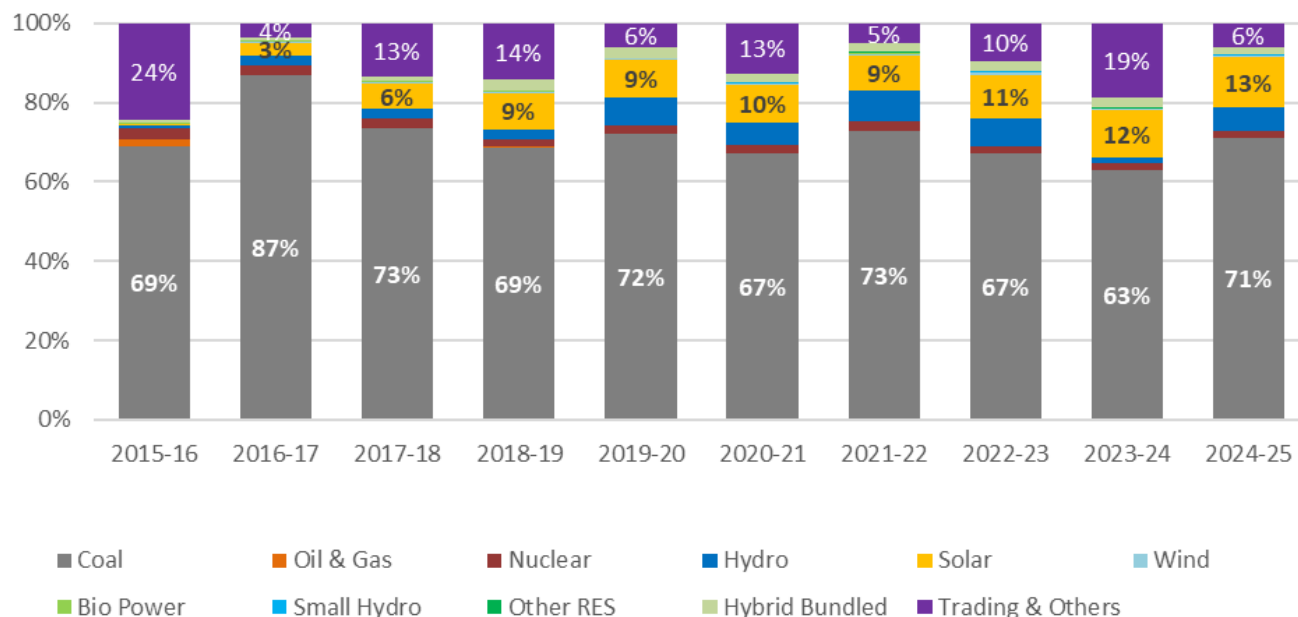


Figure 13 : Power Procurement Quantum Trends of TGSPDCL (in %)

Source: ICED

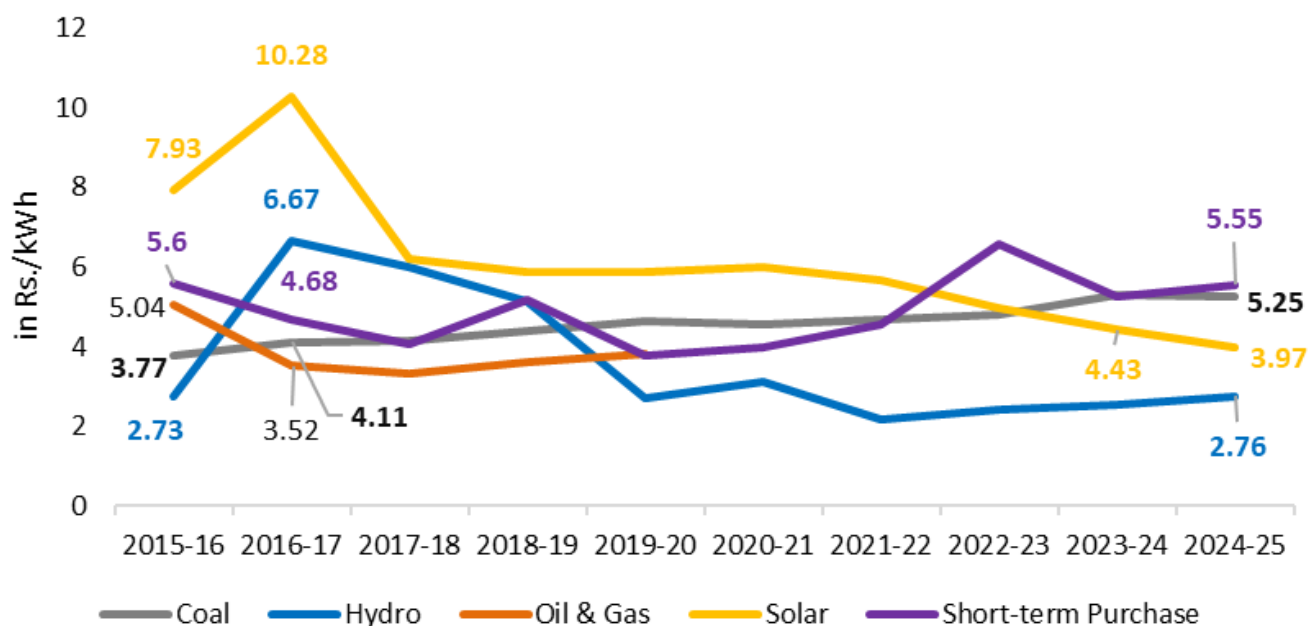


Figure 14 : Power Procurement Cost Trends of TGSPDCL (in ₹/kWh)

Source: ICED

Other challenges affecting the DISCOMS' ability to optimise power procurement include poor performance in Renewable Purchase Obligation (RPO) compliance under the Distribution Utilities Ranking (DUR). In addition, the DISCOMS have not outlined clear plans for Battery Energy Storage System (BESS) deployment, utilisation of existing pumped storage facilities, or enhancing the flexibility of coal-based generation. In the absence of these measures, reliance on costly short-term

market purchases is likely to remain the primary option for bridging demand-supply gaps.

Going forward, the DISCOM needs to strengthen its resource planning through detailed modelling studies, as recommended in the Tariff Order. Such studies can help identify cost-optimal capacity addition and dispatch strategies under different demand and supply scenarios. They can also guide optimal deployment of energy storage systems and efficient use of market purchases, thereby minimising power procurement costs while ensuring reliable and adequate power supply¹⁷.

The ongoing efforts to strengthen resource planning can be further supported through the implementation of Resource Adequacy (RA) Regulations. The Commission has already initiated Resource Adequacy Regulations, requiring Telangana DISCOMs to prepare 10-year resource plans with annual updates. Once notified, these plans can support better demand forecasting, capacity planning and cost-effective power procurement¹⁸.

Recent efforts by TG DISCOMs

Recently, the benefits of data-driven resource planning are already evident in Telangana. By optimising power procurement through market exchanges based on real-time price signals and demand patterns, the state's DISCOMs reportedly procured about 13 BU of power at an average price of ₹ 3.04/kWh during the first eleven months of 2025-26, resulting in estimated savings of around ₹700 crore compared to conventional procurement alternatives. This demonstrates the potential of analytical and market-based procurement strategies in reducing power purchase costs while maintaining supply reliability¹⁹.

¹⁷ Tariff Order Telangana 2026-27

https://www.tgerc.telangana.gov.in/file_upload/uploads/Tariff%20Orders/Current%20Year%20Orders/2026/RST%20Order%20FY%202026-27.pdf

¹⁸ Tariff Order Telangana 2026-27

¹⁹ <https://www.energetica-india.net/news/telangana-discoms-achieve-cost-savings-of-inr-700-crore-through-data-driven-power-exchange-strategy>

4.5 UTTAR PRADESH: Dakshinanchal Vidhut Vitran Nigam Limited, (DVVNL), Madhyanchal Vidyut Vitran Nigam Limited (MVVNL), Pashchimanchal Vidyut Vitran Nigam Limited (PVVNL), Purvanchal Vidhyut Vitaran Nigam Limited (PuVVNL) and Kanpur Electricity Supply Company (KESCO)

Uttar Pradesh, India’s most populous and geographically vast state, is served by six distribution companies: DVVNL, MVVNL, PVVNL, PuVVNL, KESCO and NPCL. Together, they cater to over 3.6 crore consumers. Agriculture and rural domestic users form the largest consumer segment, accounting for nearly 68% of total electricity sales. In contrast, commercial and industrial consumers, though fewer in number, contribute a disproportionately large share of revenue.

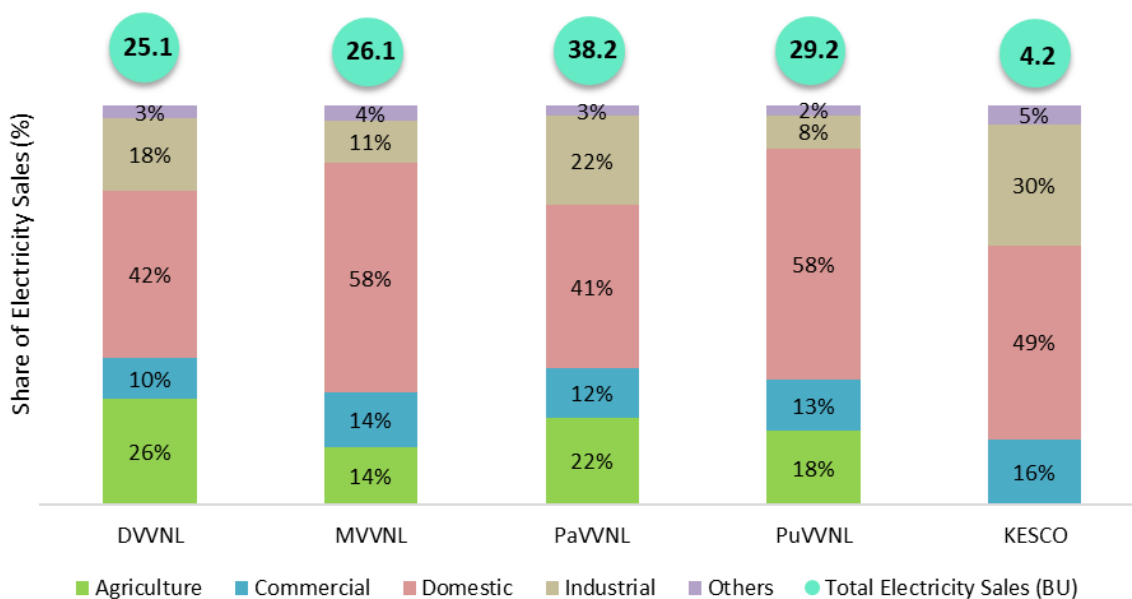


Figure 15 : Electricity Sales Share in Uttar Pradesh DISCOMs in 2024-25

Source: ICED

Operational Overview:

Over the last decade, state-owned DISCOMs have cut their AT&C losses by nearly half or more. Among them, PVVNL has the lowest AT&C loss at 11.9% in 2024-25, attributed to a high concentration of industrial and commercial consumers. Its billing efficiency stands at 88.82% and its collection efficiency is exceptionally high at 99.18% – meaning it recovers almost all of what it bills.

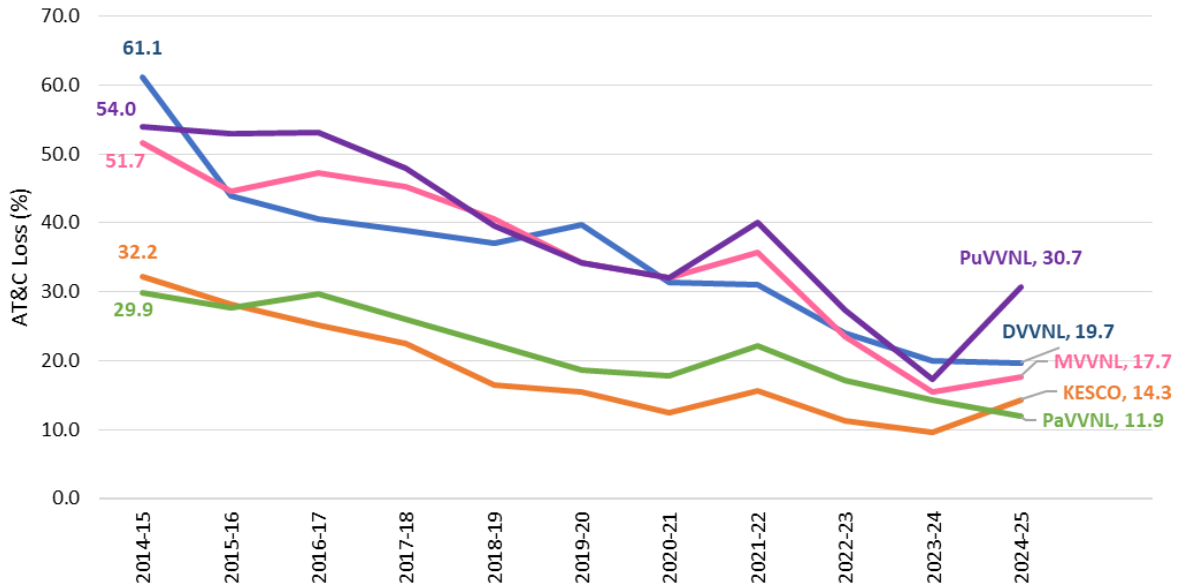


Figure 16 : Uttar Pradesh DISCOMs AT&C Loss Trends

Source: ICED

Other DISCOMs, such as PuVVNL, DVVNL and MVVNL have lowered their AT&C losses in 2023-24 through two targeted initiatives: replacing o bare conductors with Aerial Bunched (AB) cables in high-loss areas to prevent illegal hooking; and stepping up vigilance, monitoring and frequent on-ground inspections to detect unauthorised use.^{20 & 21}

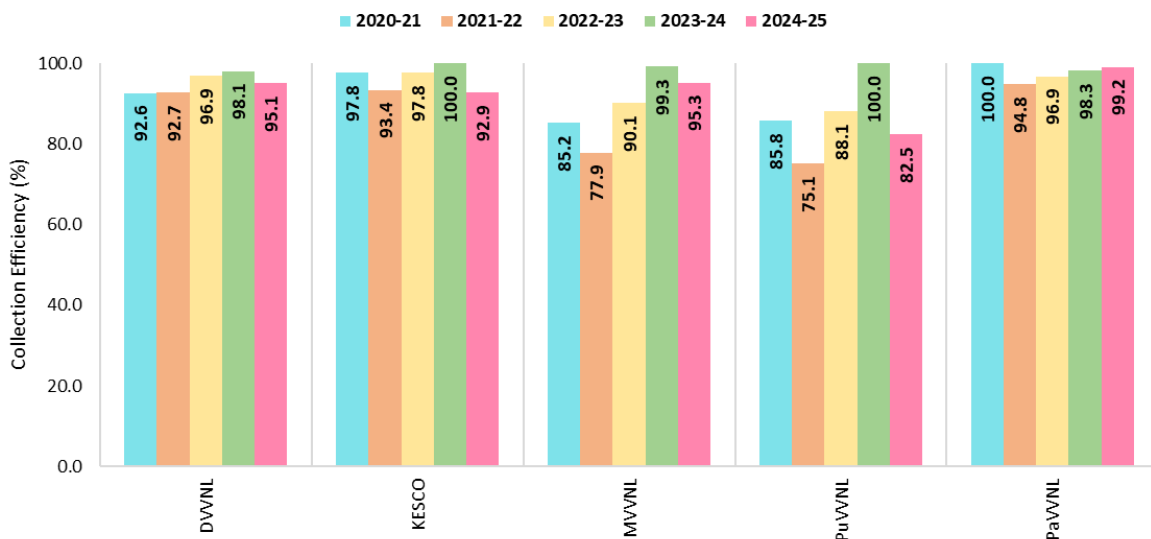


Figure 17 : Uttar Pradesh DISCOMs Collection Efficiency Trends

Source: ICED

²⁰ https://www.uperc.org/App_File/UPPCLOrderwithCorrigendum-pdf1017202471822PM.pdf

²¹ https://www.uperc.org/App_File/OrderStateDiscomsDigitallySigned-pdf726202220241PM.pdf

In 2024-25, however, PuVVNL saw a sharp rise in AT&C losses, driven primarily by a sudden drop in collection efficiency from 100% in 2023-24 to 82.5% in 2024-25. Similar increases were observed in KESCO and MVVNL. The main causes were a significant number of unmetered consumers in categories such as public lamps, public water works and private tube wells/pumping sets,²² and incomplete metering despite repeated regulatory directives. Unmetered connections lead to under-billing and inaccurate energy accounting, which inflates commercial losses.

Financial Performance:

Uttar Pradesh’s DISCOMs have consistently posted high financial losses (revenue gaps), with the exception of PaVVNL, which recorded a profit after tax of ₹1,256 crore in 2024-25, a 2.6-fold increase over 2023-24, driven by a combination of higher subsidy realisations and improved operational efficiency. Other income surged to ₹6,431 crore, primarily due to enhanced tariff subsidies from the state government and higher non-operating income²³.

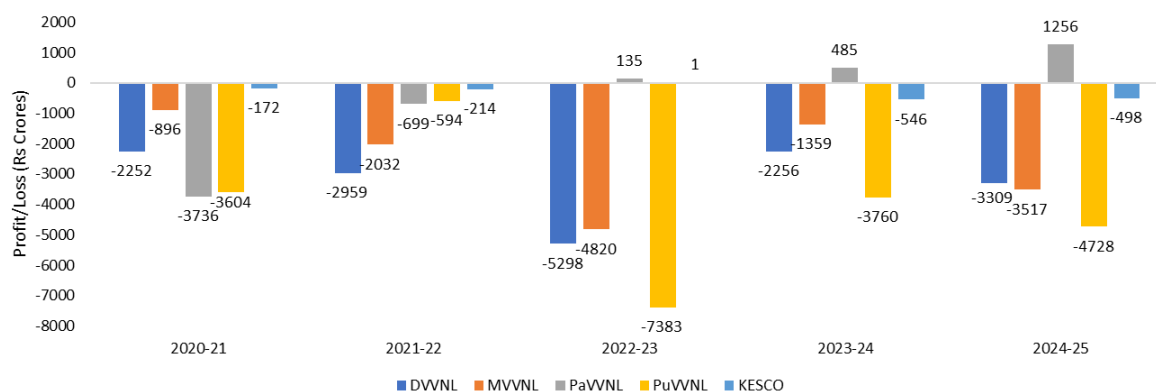


Figure 18 : Uttar Pradesh DISCOMs Yearly Net Profit/Loss Trends

Source: ICED

At PaVVNL, gross employee expenses for the year stood at ₹982.10 crore, of which ₹347.94 crore was capitalised to capital works, against just ₹182.01 crore the previous year. As a result, the net employee benefit expense recognised in the Profit & Loss account declined from ₹725.68 crore in 2023-24 to ₹634.16 crore in 2024-25. By capitalising a larger portion of staff costs directly attributable to capital projects, the company reduced the charge to its income statement, thereby improving reported profitability. Finance costs also fell from ₹1,057.44 crore to ₹869.47 crore,

²² https://www.uperc.org/App_File/UppclTariffOrderFY2025-26-pdf1122202564623PM.pdf

²³ <https://pvvnl.org/uploads/1748585498.pdf>

driven by lower interest on loans from REC, PFC and bonds, along with reduced bank charges. These savings fed directly into the bottom line.

Crucially, collection efficiency improved to 99.2%, billing efficiency rose to 88.8% and AT&C losses dropped to 11.9%, ensuring that almost all billed revenue was realised. These factors together enabled PVVNL to outperform most other state DISCOMS and post a healthy profit for the year.

In contrast, PuVVNL, DVVNL and MVVNL incurred massive losses of ₹4,728 crore, ₹3,309 crore and ₹3,517 crore respectively²⁴. The primary reasons were high power purchase costs, poor collection efficiency and a massive build-up of unpaid bills, especially from agricultural and rural consumers. This led to huge provisions for bad debts and heavy borrowing, resulting in high interest costs. High AT&C losses, under-billing from unmetered connections and weak internal financial controls compounded the problem.

The most recurring issue is the accumulation of massive, unrecoverable trade receivables. PuVVNL reported outstanding receivables²⁵ of ₹41,701 crore and made a bad-debt provision of ₹19,789 crore; DVVNL provisioned ₹3,682 crore; and MVVNL had ₹29,861 crore in unpaid bills from consumers, equivalent to 754 days of power sales²⁶.

Statutory auditors flagged weak internal financial controls across all three, including unreconciled inter-unit transactions, outdated fixed asset registers, poor bank reconciliation and non-integration of billing with accounting systems. Despite substantial government subsidies, the fundamental mismatch between cost of supply and actual revenue recovery kept the DISCOMs in deep financial distress.

To address billing inaccuracies and accelerate smart metering, the state government and regulator have sharply reduced the cost of smart prepaid meters. The new fixed rates are ₹2,800 for single-phase and ₹4,100 for three-phase meters – a steep cut of 53% and 64% respectively²⁷. This revision is expected to benefit more than 3.15 lakh consumers²⁸. High losses compel the DISCOMs to procure

²⁴ ICED

²⁵ PuVVNL Balance Sheet 2024-25 (Page 14), <https://puvvnl.in/en/article/balance-sheet>

²⁶ <https://www.mvvnl.in/site/writereaddata/siteContent/202604161306300345Annual%20Report%20FY-2024-25.pdf> (Page 33)

²⁷ https://www.uperc.org/App_File/PressNoteCDB-2025-pdf1231202553502PM.pdf

²⁸ <https://timesofindia.indiatimes.com/city/lucknow/smart-prepaid-meter-cost-in-up-slashed-to-rs-2800/articleshow/126278050.cms>

significantly more power than actual consumption, resulting in increased power purchase costs.

Power Procurement Overview:

UPPCL procures power on behalf of all state DISCOMs and allocates it to them based on the DBST methodology approved by the Commission. Notably, in 2025-26 UPPCL has bought power from high-cost stations such as Harduaganj, Mauda, Solapur and North Chennai Thermal Power Station at rates above ₹10 per kWh, despite the availability of cheaper power stations, a pattern also seen the previous year. Plant-level power purchase data, both quantum and cost, is not available for each DISCOM; the tariff order provides consolidated figures.

Table 1: Uttar Pradesh Approved Power Purchase Cost for 2025-26

TABLE 6-40: APPROVED POWER PURCHASE FOR FY 2025-26

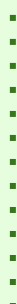
SN	Particular	Units Dispatched (MU)	Annual Fixed Charges		Annual Energy/ Variable Charge		Total Cost	
			(Rs. Cr.)	(Rs. / kWh)	(Rs. Cr.)	(Rs. / kWh)	(Rs. Cr.)	(Rs. Cr.)
4	PARICHA	-	-	-	-	-	-	-
5	PARICHHA EXT.	1,192.92	328.64	3.89	464.30	6.65	792.93	
6	OBRA-A	-	-	-	-	-	-	
7	OBRA-B	2,786.00	593.29	3.49	971.22	5.62	1,564.51	
8	HARDUAGANJ	-	-	-	-	-	-	
9	HARDUAGANJ EXT.	585.21	510.95	4.64	271.46	13.37	782.41	
10	PARICHHA EXT. STAGE-II	1,057.58	469.91	3.89	411.69	8.34	881.59	
11	ANPARA-D	6,023.92	1,070.88	2.02	1,215.43	3.80	2,286.30	
12	Panki Extension	4,631.78	875.41	2.38	1,102.11	4.27	1,977.52	
13	HARDUAGANJ EXT. Stage II	1,492.42	921.08	4.40	656.49	10.57	1,577.57	
14	OBRA-C	9,137.25	1,680.99	3.09	2,826.56	4.93	4,507.56	
15	JAWAHARPUR	3,121.70	2,221.83	4.12	1,284.82	11.23	3,506.65	
	Sub-Total	39,808.72	9,247.26	2.86	11,386.76	5.18	20,634.02	

TABLE 6-40: APPROVED POWER PURCHASE FOR FY 2025-26

SN	Particular	Units Dispatched (MU)	Annual Fixed Charges		Annual Energy/ Variable Charge		Total Cost	
			(Rs. Cr.)	(Rs. / kWh)	(Rs. Cr.)	(Rs. / kWh)	(Rs. Cr.)	(Rs. Cr.)
10	FGUTPS-IV	613.98	301.94	3.85	236.08	8.76	538.02	
11	FSTPS	118.04	26.08	3.48	41.08	5.69	67.15	
12	KHTPS-I	335.71	71.15	2.99	100.44	5.11	171.59	
13	KHTPS-II	1,069.55	167.80	2.79	298.60	4.36	466.39	
14	NCTPS-I	97.75	84.27	5.35	52.30	13.97	136.58	
15	NCTPS-II	136.14	108.14	4.68	63.76	12.63	171.90	
16	RIHAND-I	2,167.64	192.68	1.78	386.68	2.67	579.36	
17	RIHAND-II	2,151.68	178.49	1.77	381.32	2.60	559.81	
18	RIHAND-III	2,405.11	346.87	1.75	421.47	3.19	768.34	
19	SINGRAULI	5,132.41	424.91	1.85	951.51	2.68	1,376.43	
20	KORBA-I STPS	18.62	1.67	1.55	2.88	2.45	4.55	
21	KORBA-III STPS	8.72	1.06	1.51	1.32	2.73	2.38	
22	MAUDA-I STPS	7.94	4.96	3.77	2.99	10.01	7.95	
23	MAUDA-II STPS	6.14	7.19	4.62	2.84	16.32	10.03	
24	SOLAPUR TPS	6.01	12.02	4.74	2.85	24.74	14.87	
25	SIPAT-I STPS	30.90	5.01	1.74	5.38	3.36	10.39	
26	SIPAT-II STPS	11.99	1.39	1.79	2.15	2.95	3.54	
27	VINDHYANCHAL-I STPS	16.10	1.76	2.00	3.22	3.09	4.98	

Source: UP Tariff Order²⁶

NOTES



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