

MANUFACTURED CAPITAL

Material Topics



Environmental Stewardship



Digitalisation & Cybersecurity



Asset Lifecycle Management



Business Resilience

We build the systems that power progress.

Apraava Energy's manufactured capital includes the assets, systems, and processes that support power generation, transmission, and smart energy management.

The Many Currents, At a Glance

Divested our only thermal asset, reinforcing our strategic focus on clean energy growth

Achieved highest-ever wind generation of 2,426 GWh

Advanced construction of 550 MW solar capacity at Bhanipura, Rajasthan

Operationalised the 44 ckm Fatehgarh-IV transmission line

Reached a cumulative smart meter award quantity of 9.7 million



During the year, we continued to demonstrate operational excellence through strong wind asset performance, tighter project governance, and the continued build-out of under-construction assets, including projects being executed through self-EPC models. Record wind power generation and availability across our portfolio underscored operational efficiency, while the Project

Management Governance System (PMGS) sharpened the execution of complex projects. At the same time, digital initiatives, including early AI-enabled applications within Advanced Metering Infrastructure (AMI), are bringing greater intelligence and responsiveness to energy networks, supporting a system that is increasingly resilient, efficient, and scalable.

2010 onwards

Expanded into wind and solar generation with key projects across different states

2019 onwards

Expanded into the power transmission sector through strategic acquisitions of STPL (20th November, 2019) and KMTL (20th December, 2021) projects, and successful bidding for transmission assets in Rajasthan and Madhya Pradesh

2009

Marked our shift toward clean energy with initial investments in wind generation projects

2008–2012

Won the bid to establish the 1,320 MW supercritical Jhajjar Power Plant (JPL) in Haryana in 2008. It was commissioned in two parts: unit #1 (660 MW) on 29th March, 2012, and unit #2 (660 MW) on 19th July, 2012

2002

Entered India's power sector by acquiring the 655 MW Paguthan Combined-Cycle Power Plant in Gujarat

2023

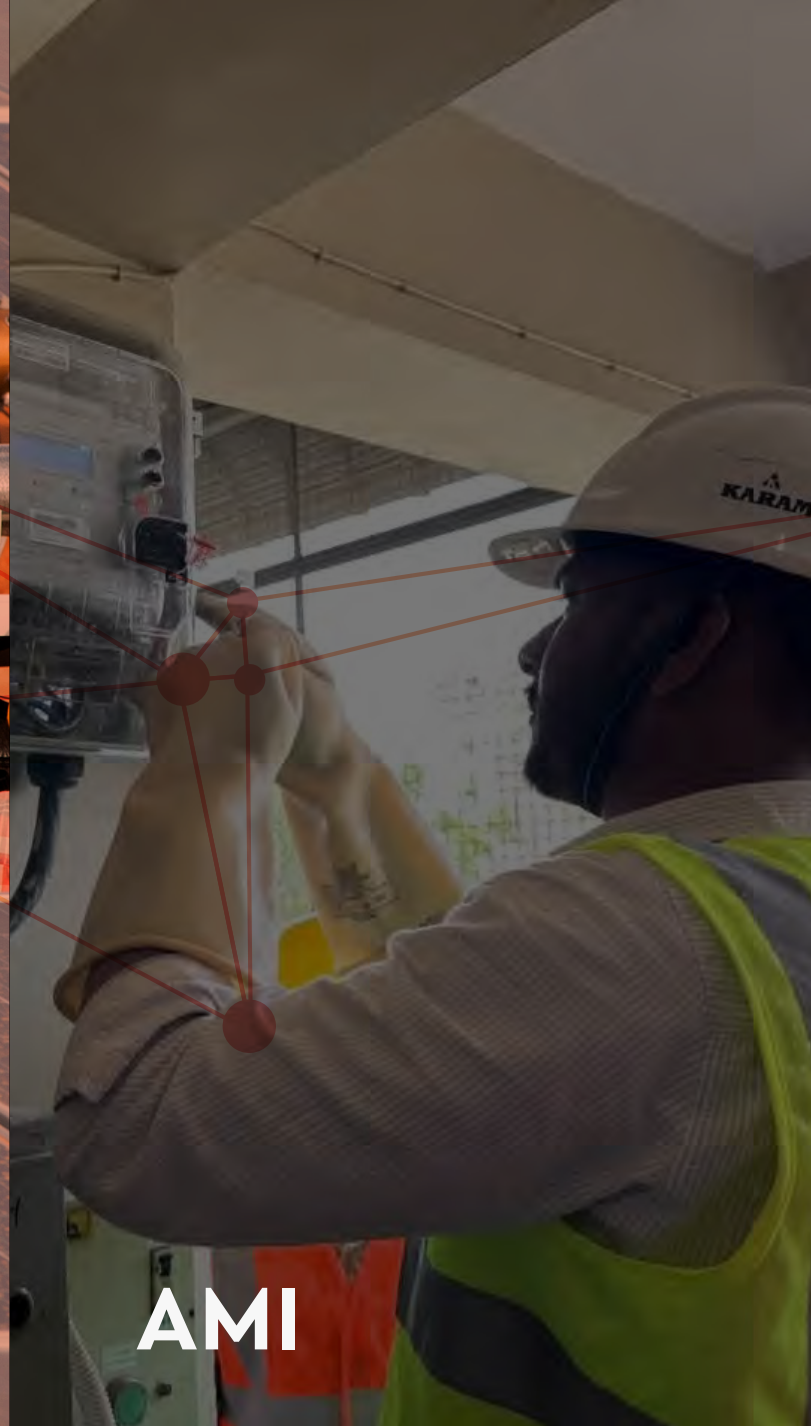
Marked our foray into the B2C space with an Advanced Metering Infrastructure (AMI) business

2025

Built our first Interstate Transmissions (ISTS) project on the Sidhpur Windfarm, and it became fully operational in the last quarter of FY 2024-25

2026

Successfully commissioned the 44 ckm, 400 kV Fatehgarh IV Transmission Line and 400/220 kV Pooling Substation in Barmer, Rajasthan
Divested our thermal power plant at Jhajjar in a bid to focus on our growing clean energy portfolio



Renewable Energy

AMI

Transmission

Jhajjar Power Limited

Driving higher generation and reliability through data-led operations, centralised analytics, and in-house O&M capabilities

Scaling smart meter deployment with resilient execution, stronger workforce models, and AI-enabled digital solutions

Sustaining high availability through proactive maintenance, digital monitoring, and strengthened environmental safeguards

Divestment completed during the year, enabling portfolio transition while maintaining operational stability through the process

Our asset portfolio continues to evolve, strengthening renewable, digital, and transmission capabilities to support a more resilient and intelligent energy system.

Apraava Energy’s Power Generation Assets

Technology Type	State	Capacity
Coal-fired Supercritical Power Station	Jhajjar, Haryana	1,320 MW
Solar Projects	Telangana, Maharashtra	250 MW
Wind Farms	Rajasthan, Gujarat, Maharashtra, Madhya Pradesh, Karnataka, Tamil Nadu	1,173.25 MW
Transmission Lines	Madhya Pradesh, Assam, Nagaland, Manipur, Rajasthan	1032 ckm
AMI Business (consumers)	Assam, Gujarat, Himachal Pradesh, West Bengal, Madhya Pradesh and Pudduchery	9,730,722

Note: Jhajjar Power Plant was divested on 27th March, 2026

Source-Wise Energy Sent Out (GWh)

Source	FY 2023-24	FY 2024-25	FY 2025-26
Coal	7,740	7,600	6,571
Solar	501	492	469
Wind	2,002	2,174	2,426

Apraava Energy’s Total Energy Consumption within the Organisation (GRI 302-1, 302-3, 302-4)

Source	Unit	FY 2023-24	FY 2024-25	FY 2025-26
Coal	TJ	74,410.14	71,332	61,540.92
Renewable Energy (Biomass)	TJ	1,149.40	3,046	2,948.92
HSD	TJ	32.99	39.37	40.25
Diesel	TJ	13.10	11.46	14.62
Petrol	TJ	0.14	0.34	0.33
Purchased Electricity (GRID)	TJ	59.03	3.49	35.80
LPG*	TJ	1.98	-	-
Total Energy Consumption	TJ	75,664.80	74,433	64,580.86
Energy Intensity	TJ/MWh	0.0074	0.0098	0.0068

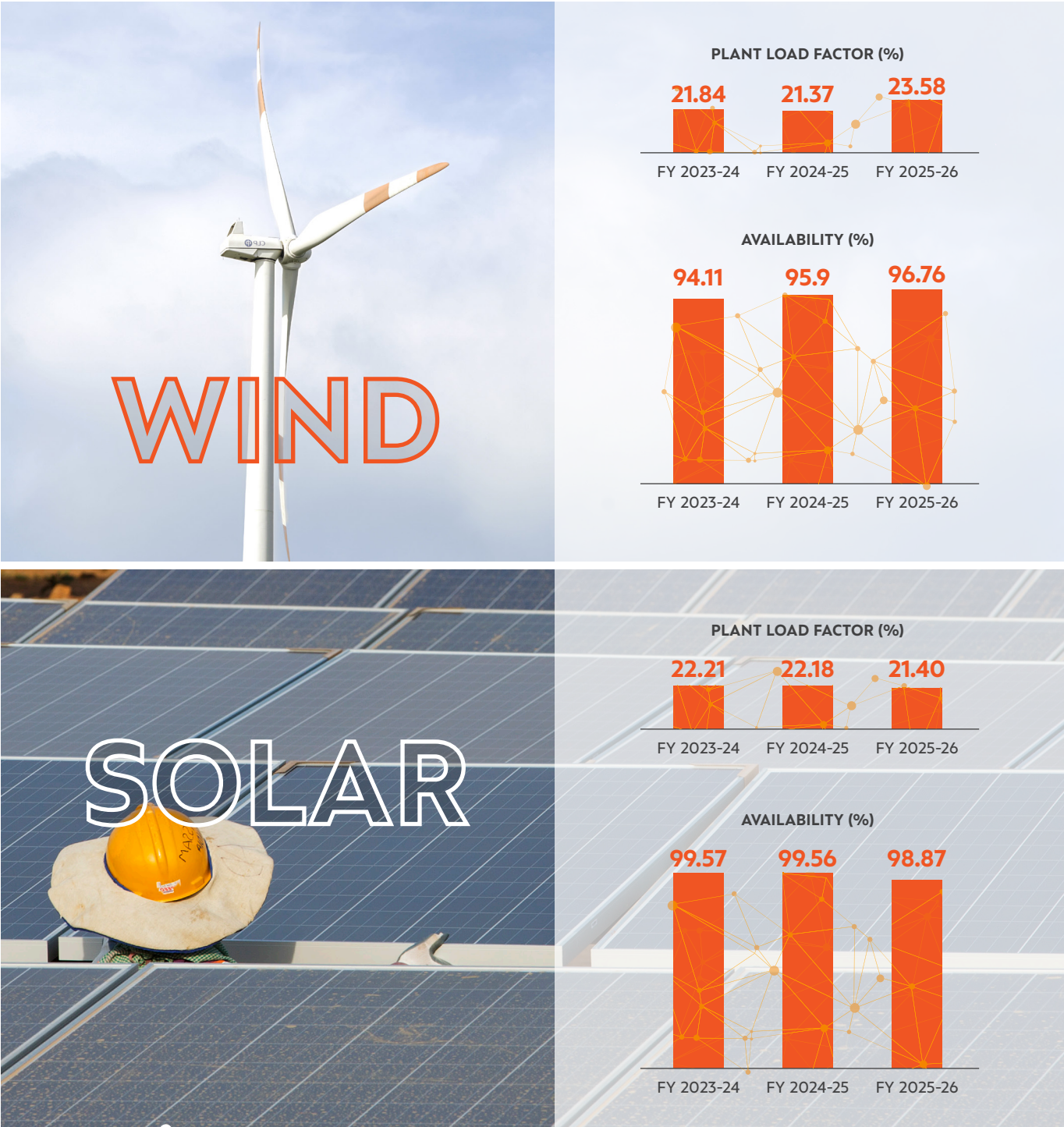
*Since FY 2023-24, LPG consumption is not accounted for in Scope 1 and has been shifted to Scope 3 accounting. Accordingly, LPG is not part of the total energy consumption within the organisation for FY 2025-26.



Driving Intelligent and Efficient Renewable Energy Systems

Our renewable energy operations are increasingly shaped by data, visibility, and control. A centralised analytics platform brings together SCADA (Supervisory Control and Data Acquisition), turbine, and inverter data into a unified system for solar and wind farms, while the transition to in-house solar O&M strengthens monitoring over on-ground operations and enables real-time monitoring across assets. This integrated view allows for early detection of performance deviations, more informed maintenance planning, and sharper dispatch management across the portfolio.

Operational Efficiency Across RE Assets (%)

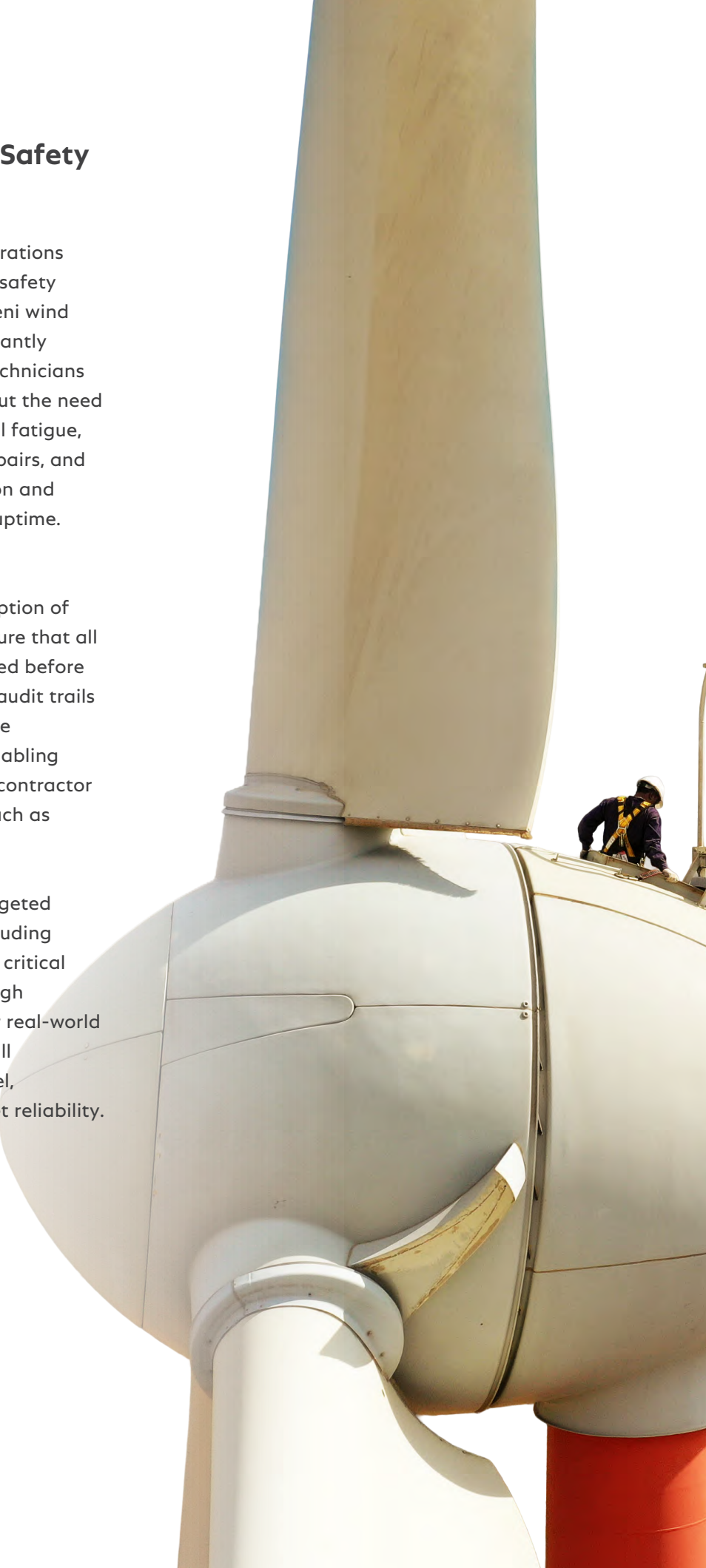


Enhancing Productivity and Safety at Renewable Sites

We continue to strengthen on-ground operations by improving both asset accessibility and safety through targeted interventions. At our Theni wind site, climb assist installations have significantly improved turbine accessibility, allowing technicians to reach nacelles quickly and safely without the need for tower climbs. This has reduced physical fatigue, enabled more efficient inspections and repairs, and shortened the time between fault detection and resolution, contributing to higher turbine uptime.

Safety practices are also becoming more structured and traceable through the adoption of digital permit-to-work systems, which ensure that all critical checks and approvals are completed before maintenance begins, while creating clear audit trails for accountability. Surveillance systems are improving visibility of on-site activities, enabling closer monitoring of PPE compliance and contractor practices, particularly in high-risk areas such as nacelle operations.

These measures are complemented by targeted engineering upgrades across turbines, including additional safety grills and barricading at critical points, as well as immersive training through VR-based modules that prepare teams for real-world scenarios. Together, these interventions will strengthen execution discipline at site level, improving both workforce safety and asset reliability.



WIND

Driving Performance Through Operational Excellence

This year marked a milestone for our wind portfolio, with record generation and availability driven by stronger operational discipline and smarter systems. A shift from reactive to planned maintenance, faster fault response, and improved spare parts planning have significantly enhanced turbine uptime and energy capture. Continuous benchmarking across turbines has further strengthened early identification and correction of underperforming units, while improvements in substation reliability and transmission availability have supported more consistent power evacuation. At the Andhra Lake site, focused preventive maintenance and efficient fault management helped sustain high availability during peak wind periods, contributing to record-high generation performance.

Besides, closer coordination with grid operators helped minimise curtailment. Combined with improvements in transmission availability and power evacuation, this strengthened the portfolio's ability to capture value from favourable wind conditions. Digital interventions, including permit-to-work systems and surveillance-led monitoring, further enhanced operational oversight, safety, and execution discipline across sites.

The 300 MW wind project awarded under SECI Wind (Tranche XIV) in Karnataka is currently under construction, progressing steadily.



Strengthening Safety and Grid Stability in Wind Operations

A Static Var Generator (SVG) has been deployed at Sidhpur to strengthen grid stability and support reliable power evacuation.

Our wind portfolio saw record generation and availability in 2025-26

At the Tejuva and Sidhpur sites, targeted safety enhancements have been implemented across Wind Turbine Generators (WTGs). Additional safety grills and barricading at critical points such as the adaptor platform, window mesh, and winch areas have reduced risks during maintenance activities, helping prevent accidental falls and improving technician safety on site.

At Sidhpur, a Static Var Generator (SVG) has been deployed to strengthen grid stability and support reliable power evacuation. By automatically managing reactive power, the system helps maintain voltage stability during fluctuations in wind generation. This ensures compliance with grid code requirements while reducing the risk of curtailment, enabling more consistent and efficient power export.

SOLAR

Strengthening Control and Performance

Our solar operations have been strengthened through the transition to in-house O&M, giving us greater control over asset performance and lifecycle value. This shift has enabled faster on-ground response, optimised spare parts inventory, and more efficient cost management by reducing reliance on third parties. It has also ensured consistent safety standards and operating protocols across sites, improving overall reliability and performance.

Improving Resource Efficiency Through Smarter Operations

Water efficiency initiatives are also being strengthened across solar operations through the expanded deployment of robotic dry-cleaning systems for PV modules. By reducing dependence on conventional water-intensive cleaning practices, these systems are helping improve operational efficiency while conserving critical resources.

During the year, approximately 34,806 KL of water was saved across solar parks through robotic dry cleaning, reinforcing our focus on combining performance optimisation with environmental stewardship.

We continue to progress on the development of two solar projects awarded in FY 2023-24:

250 MW
Solar capacity secured in NHPC Solar Auction under construction in Bhanipura, Rajasthan

300 MW
Solar capacity secured in NTPC Solar Auction under construction in Bhanipura, Rajasthan

Alongside operational priorities, renewable sites continue to integrate environmental stewardship and community engagement into day-to-day operations. Tree plantation and gardening initiatives across sites are contributing to biodiversity enhancement and strengthening green cover within operational areas. Employees also continue to participate in volunteering initiatives across nearby communities, including awareness sessions on renewable energy and sustainability for students, connecting operational expertise with local engagement efforts.

ADVANCED METERING INFRASTRUCTURE

Scaling Smart Meter Deployment

Our AMI programme scaled significantly during FY 2025-26, with ~1.9 million smart meters installed, cumulative installation is ~3.1 million and overall progress reaching 33% of the planned scope. Execution was supported by detailed site-level planning, close coordination with DISCOMs, and strong alignment with implementation partners, while efficient inventory management and flexible contracting helped sustain progress and optimise costs.

AMI Deployment Dashboard (as of 31st March, 2026)

State	Utility	Awarded Meter Quantity	Cumulative Meter Installed Quantity
		(Nos.)	(Nos.)
Assam	APDCL	693,077	684,573
Gujarat	PGVCL	2,366,608	603,751
West Bengal	WBSEDCL	774,101	304,631
Himachal Pradesh	HPSEBL	934,409	761,568
Rajasthan	JVVNL	1,138,682	263,601
Madhya Pradesh	MPMKVVCL	957,758	342,215
Himachal Pradesh	HPSEBL-2	505,078	104,296
Puducherry	PED	407,052	37,693
Himachal Pradesh	HPSEBL-3	1,478,945	3,476
Madhya Pradesh	MPMKVVCL	475,012	74,975
Total		9,730,722	3,180,779



Enabling Smarter Power Distribution with DISCOM GPT

As part of our AMI programme, Apraava Energy piloted DISCOM GPT, an AI-enabled conversational platform designed to help utilities unlock the full value of smart meter data. Built on advanced analytics, machine learning, and large language models, the platform enables distribution companies to interact with complex datasets through intuitive, real-time queries, improving both decision-making and operational responsiveness.

DISCOM GPT enables accurate demand forecasting using time-series models and deep learning, allowing utilities to predict load patterns at feeder and sub-division levels, and plan energy procurement more effectively. At the same time, it supports transformer fault prediction through anomaly detection, helping identify high-risk assets early and shifting maintenance from reactive interventions to preventive action. The platform also enables customer segmentation using advanced algorithms, allowing DISCOMs to benchmark performance, design targeted interventions, and optimise tariff structures.

These capabilities are translating into tangible improvements at the distribution level. Smart meter-led insights are enhancing billing efficiency and revenue assurance, reducing bill disputes, enabling faster detection of losses and theft, and improving overall technical and commercial performance. In regions with high smart meter penetration, these efficiencies are beginning to flow through to consumers, as seen in Assam, where tariff reductions have already been realised.

Building a Skilled AMI Workforce

Talent scarcity continues to be a challenge across the AMI ecosystem, both at managerial and field levels. While Apraava’s growing industry presence has enabled us to attract experienced managerial talent, retention remains competitive.

At the field level, the shortage of technicians is being addressed through a mix of approaches, including partnerships with local vendors, deployment through third-party staffing models, and hiring from ITIs (Industrial Training Institutes) and skill development institutes to build a steady talent pipeline.

Focusing on Data Security and Regulatory Readiness

We remain focused on strengthening data security and regulatory compliance, closely aligned with our broader digital and intellectual capital initiatives. Project data is hosted on MeitY-approved cloud service providers, with data masking protocols implemented across consumer-facing applications. Regular cybersecurity, data privacy, and VAPT audits are conducted to ensure system resilience.

In parallel, a comprehensive gap assessment on DPDP readiness was undertaken in 2025, with a clear roadmap to achieve full compliance by November 2026, reinforcing our commitment to responsible data governance as digital capabilities continue to scale.



Supporting Stability, Enabling Transition

During the year, the divestment of Jhajjar Power Limited was successfully completed, marking a significant milestone in the evolution of Apraava Energy's portfolio. Throughout the transition period, the plant continued to operate reliably, supporting grid stability and meeting demand without disruption.

Operational focus remained firmly on efficiency, regulatory compliance, and disciplined resource management. Environmental practices, including 232,626 MT of biomass co-firing, were sustained in line with regulatory requirements, contributing to lower

coal intensity, while water stewardship measures such as zero liquid discharge and reuse systems, along with structured waste management, supported responsible plant operations.

The transition was managed with a clear emphasis on maintaining performance and upholding environmental and operational standards until the point of divestment. This approach reflects our commitment to ensuring continuity in critical infrastructure while advancing towards a more renewable-led and technology-enabled portfolio.

Sustaining Operational Efficiency Through Digital Monitoring

Operational efficiency at JPL was supported by the use of a digital Energy Management System (EMS), enabling real-time monitoring of power consumption across key auxiliary systems such as fans, pumps, and conveyors. Daily tracking of High-Tension (HT) drive usage allowed teams to identify deviations early and take corrective action, improving energy efficiency and reducing avoidable losses.

These practices reinforced a culture of data-led decision-making and operational discipline, ensuring sustained performance during the transition phase.

JPL's Operational Efficiency (%)

KPI	FY 2023-24	FY 2024-25	FY 2025-26
Net Thermal Efficiency	36.84	36.77	36.65
Plant Load Factor	71.16	70.33	61.69
Availability	86.11	92.24	86.79
Auxiliary Power Consumption	6.19	6.54	6.60



Learn more about these achievements in our Awards & Accolades section

Strengthening Reliable TRANSMISSION NETWORKS

Our transmission assets form the backbone of reliable power delivery, ensuring stability across an increasingly complex and evolving energy system. Assets such as KMTL and STPL have continued to operate at consistently high levels of availability, reflecting strong operational discipline and resilient infrastructure. As we move forward, our focus remains on sustaining this high performance while navigating key operational risks, including extreme weather events, ageing components, right-of-way management, and third-party construction activity near transmission corridors. Through proactive maintenance and continuous monitoring, we work to ensure uninterrupted power flow and long-term network reliability.

Current Assets and Performance

Satpura Transco Private Limited (STPL):

Operating a 400 kV, 240-kilometre intrastate double-circuit transmission line in Madhya Pradesh, STPL has sustained near-perfect system availability over the past three years, supported by strong O&M practices and a proactive maintenance approach.

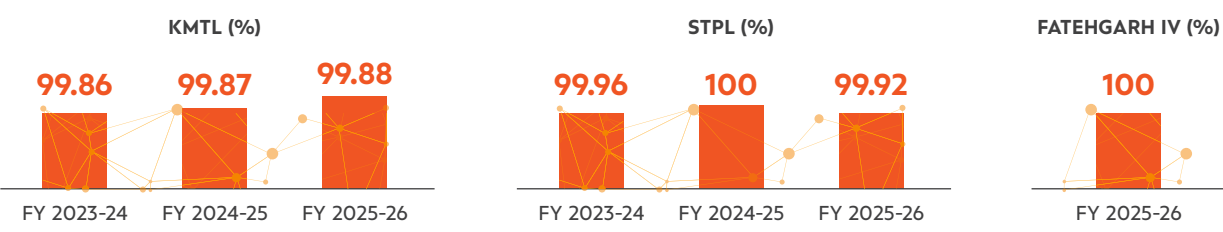
Kohima Mariani Transmission Limited (KMTL):

Spanning 254 kilometres, this double-circuit 400 kV transmission line and substation operates under a BOOM model, with Apraava Energy holding a 74% equity stake. It continues to reliably serve long-term customers across Manipur, Nagaland, and Assam.

Fatehgarh IV Transmission Limited:

Secured in FY 2023-24, this project, part of the transmission system for evacuation of power from Renewable Energy Zones in Rajasthan (20 GW) under Phase III Part A1, has now been operationalised, strengthening our transmission portfolio and supporting renewable integration at scale.

Asset Availability



Besides, Apraava Energy is progressing towards the completion of the three other transmission projects secured in FY 2023-24. These include:

- Fatehgarh-III Transmission Ltd:**
Transmission System for evacuation of power from REZ in Rajasthan (20GW) under phase III- Part A3.
- Karera Power Transmission Ltd:**
Western Region Expansion Scheme XXXIII (WRES-XXXIII): Part B in Madhya Pradesh.
- Rajasthan Phase-IV A Power Transmission Ltd:**
Transmission System for evacuation of power from Rajasthan REZ Ph-IV (Part-2:5.5GW) (Jaisalmer/Barmer Complex): Part A.

Sustaining Asset Health and Performance

We adopt a comprehensive approach to asset health through preventive, predictive, and condition-based maintenance practices. Regular thermographic inspections, tower health assessments, and vegetation management help minimise outage risks, while continuous monitoring of critical components enables timely interventions. This structured approach ensures sustained system reliability and extends asset life.

Enabling Digital Monitoring and Operations

Digital tools are strengthening operational control across our transmission network. SCADA-based monitoring, remote alarms, and digital maintenance records provide real-time visibility into asset performance, enabling faster fault detection and more informed decision-making. These capabilities reduce response times and enhance safety by limiting the need for on-ground intervention in high-risk situations.

Protecting Ecosystems Along Our Network

We remain committed to minimising the environmental impact of our transmission operations. Measures such as bird diverters, aerial markers, and insulated hardware are deployed across identified vulnerable stretches, in line with wildlife protection guidelines. Ongoing monitoring and field assessments help ensure the continued effectiveness of these safeguards.



Restoring Critical Communication Under Challenging Conditions

At Kohima Mariani Transmission Limited (KMTL), the resilience of our transmission network extends beyond power flow to the integrity of its communication backbone. This was tested in a 242-metre span between Tower 75 and 76 of the 400 kV DC Twin Imphal-New Kohima transmission line, where the Optical Fibre Ground Wire (OPGW) sustained severe ballistic damage. The impact caused the cable to shred, perforate its metallic strands, and completely break its fibres, disrupting the communication channel critical for grid protection and coordination.

The incident unfolded against the backdrop of prolonged ethnic unrest in Manipur, which significantly restricted access to the transmission corridor. The affected stretch fell within a designated buffer zone, limiting routine patrolling and delaying physical verification. Despite these constraints, fault localisation was initiated through remote diagnostics, with OTDR analysis indicating a probable fault near Tower 76. Following sustained coordination with district administration, security agencies, NERPC, and NERLDC, permission was secured to conduct a joint inspection under armed protection. The damage was confirmed during patrolling in October 2025.

Given the extent of deterioration and the non-repairable condition of the cable, a complete replacement of the affected OPGW span was undertaken. The operation required shutdown of one circuit of the transmission line, with approvals secured through coordinated planning with relevant authorities. The replacement was successfully executed in late November 2025 under secured conditions, with active support from BSF, CRPF, and state police forces.

Post-installation OTDR testing confirmed full restoration of fibre continuity and stabilisation of the communication link. Since restoration, the system has operated without interruption. This effort reflects our ability to navigate operational complexity, respond decisively under constrained conditions, and ensure the continuity of critical infrastructure through disciplined execution and collaborative action.



Evolving Market Participation at Andhra Lake Wind Farm

During the year, we continued to operationalise short-term power sale strategies at our Andhra Lake Wind Project following the transition of select feeders from long-term PPAs to open access. The power is being sold partly on the Indian Energy Exchange (IEX) and partly to the Goa Electricity Department.

This project became the first to be registered in Apraava Energy's portfolio for the issuance of Renewable Energy Certificates (RECs). Together, these developments reflect a maturing commercial approach, enabling greater responsiveness to market dynamics while maintaining operational discipline.

Advancing Towards a Smarter Energy Era

Sustainable energy transitions are built on the strength of enduring infrastructure. At Apraava Energy, we are shaping assets, systems, and capabilities designed for the scale and complexity of tomorrow's power system, with emerging areas such as Battery Energy Storage Systems (BESS) beginning to complement our renewable portfolio. Through disciplined execution, intelligent operations, and a forward-looking portfolio, our manufactured capital is helping build an energy ecosystem that is stronger, smarter, and ready for the future.

