

Kimbal Chronicle

Building Reliable Tools To Modernize **Distribution Grid**

Feb 2025

Meet the new us:

Kimbal Private Limited

Sinhal Udyog Private Limited now serves you as Kimbal Private Limited. We are grateful for the journey that we shared with our customers, growth partners, and Kimbalites and look forward to everyone's continued support and trust.



The Year: 2024 – 25

In 2024-25, Kimbal achieved remarkable milestones, solidifying its position as a leader in the energy distribution ecosystem. Recognized as the **Advanced Metering Infrastructure Company of the Year**, we continued to drive innovation and efficiency in the sector. We proudly earned key certifications, including **Great Place to Work (GPTW)** and **CMMI Level 3**, reaffirming our commitment to excellence in workplace culture and process maturity. We inaugurated the **Kimbal Mega Plant** in 2024 and set new benchmarks in manufacturing within a year, by achieving a production capacity of up to **40,000 smart meters per day**, showcasing our focus on agility and scale. With our footprint expanding across the nation, Kimbal is powering the future of smart energy solutions with cutting-edge technology and an unwavering commitment to excellence.



2025-26 will be another year of creating new benchmarks and marking new territories.

Meet us:

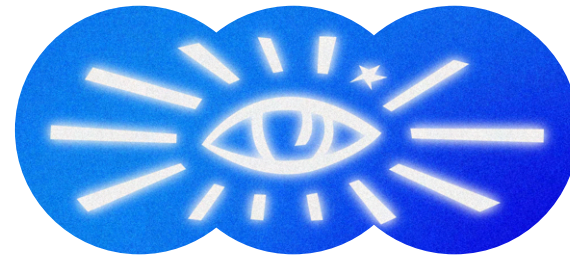
Founded in 2011, Kimbal is a trusted Indian solution provider committed to delivering "Efficient Energy Everywhere." Our ISO 9001:2015 certification reflects our dedication to quality and innovation. We empower utilities with Made-in-India solutions engineered for reliability and high performance. All our efforts are focused to enable a secure, sustainable, and efficient energy transition.

As we continue to grow, we are committed to maintaining a positive and dynamic work culture. Our employee-first approach is built on the foundations of mutual respect, trust, integrity, and a strong focus on nurturing entrepreneurial spirit within our team.



Our SPIRIT

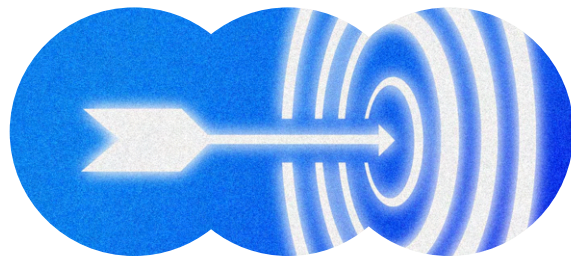
Efficient Energy Everywhere



Our

VISION

Pioneer technological innovation towards optimized energy distribution.

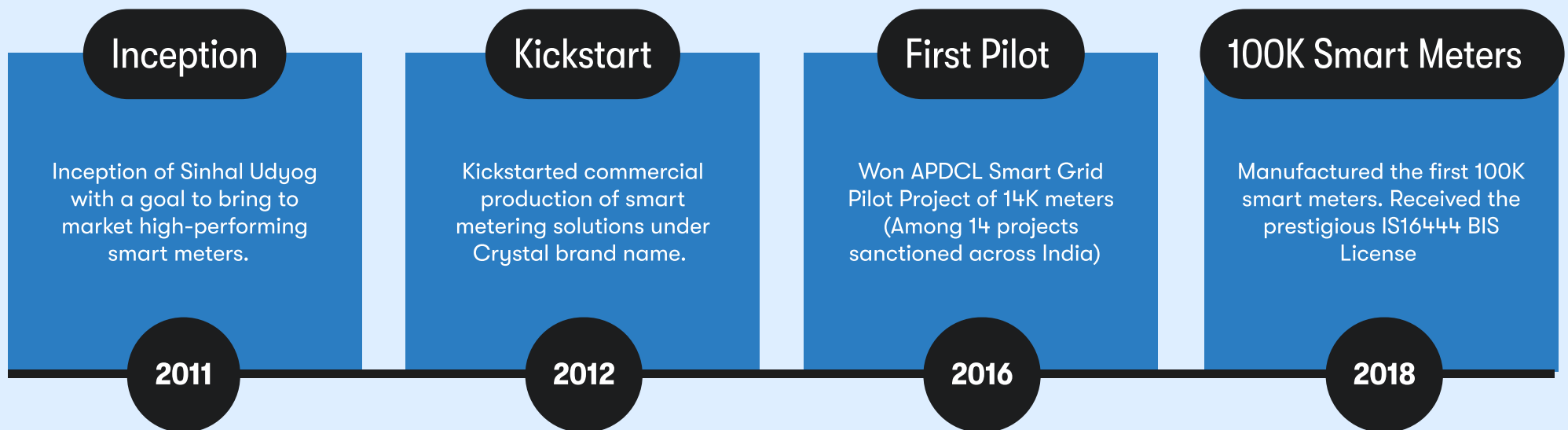


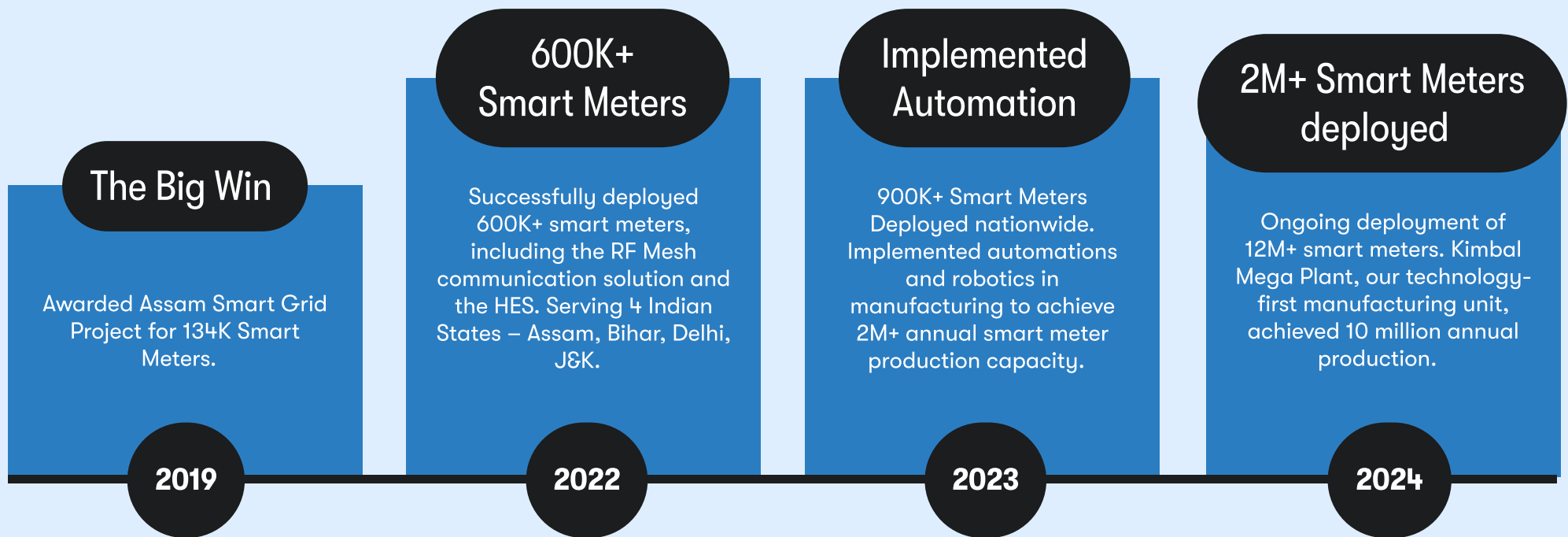
Our

MISSION

To build trusted tools for efficient energy distribution.

OUR GROWTH STORY





Our Product Portfolio:

Contributing towards India's Energy Transition

Advanced Metering Infrastructure:

- Smart Meters
- Network Interface Cards
- Gateway
- In-meter Gateway
- RF-Mesh Communication Infrastructure
- Head-end System

Smart Solutions

- AI-enabled meter reading solution
- Incubating:
Non-Intrusive Load
Management Solution

Energy Management:

- Infrastructure Energy Management Solution
- SCADA
- RTU
- Incubating: Energy Management Solution

Championing the Make-In-India initiative, we share this with much delight and pride that all our Products & Solutions are conceptualized, designed, and developed in India. We are committed to continuous improvement towards excellence of our products, processes, and people.



Our Flagship Product: Integrated Advanced Metering Infrastructure

We are India's most trusted Advanced Metering Infrastructure deployment partner offering Integrated AMI Solutions including smart meters, RF-mesh communication Infrastructure, and Head End System.



2 million+

Total Deployment:



12 million+

Ongoing Deployment:

Kushal: Our 3rd Generation Smart Meters



Kushal U1:
Single Phase whole
current smart meter

Kushal U3:
Three Phase whole
current smart meter

Kushal Magna CCG 2:
Three Phase 4 Wire LTCT
smart meter

Kushal Magna CEG 2:
Three Phase 4 Wire HTCT/
PT smart meter



Kushal Variants: Soon Launching

IEC Meters



0.2s Meters



Tejas:

Network Interface Cards for Wide Area Network (WAN)

The Cellular 4G module delivers fast, reliable smart metering connectivity with dual SIM support for seamless network switching and 2G fallback in low-coverage areas. Featuring secure encryption, low latency, and wide coverage, it enables real-time monitoring and efficient energy management for AMI and smart grid applications.



750k+

Total Deployment:

HIVE MESH:

Network Interface Cards for Neighbourhood Area Networks (NAN)

The NAN RF communication module ensures reliable and scalable connectivity for smart metering using mesh networking. It dynamically routes signals for robust data transfer, even in challenging environments. With advanced encryption, it safeguards data integrity and prevents unauthorized access. Designed for smart grids and AMI, it enables long-range, energy-efficient communication for real-time monitoring and optimized network performance.



2 million+

Total Deployment:

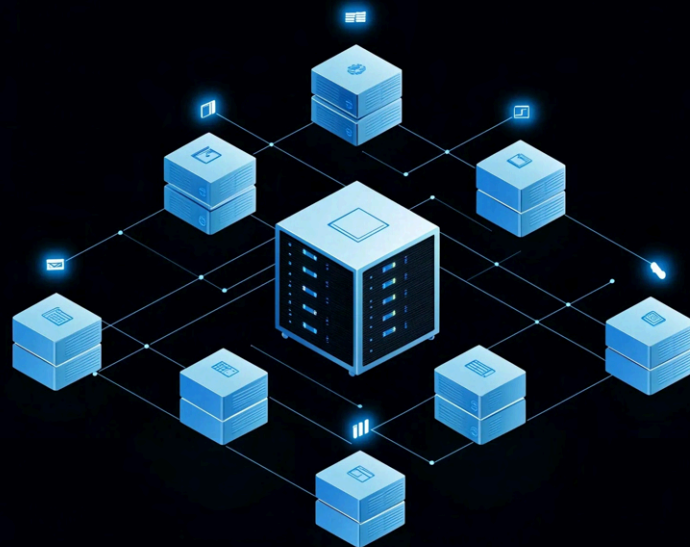
Vayu: RF-Mesh Stack

Kimbal Mesh is a locally developed and made in India RF communication solution for smart metering and AMI applications. It ensures ultra-fast convergence time and seamless network optimization. We have built an infrastructure to deploy each release on strategically placed 1,000 physical nodes, simulating a variety of real-world field conditions. With rapid deployment, robust security, and high scalability, Kimbal Mesh is the ideal solution for next-generation smart grid connectivity.

GATI:

Gateway Addressing Transfer of Information

GATI is designed for seamless deployment and long-term reliability, featuring a plug-and-play setup that reduces installation time. Its modular architecture enables quick maintenance and upgrades with minimal downtime, while enhanced mechanical safety for the antenna ensures durability. With optimized RF signal strength, better data throughput, and enhanced network stability, GATI delivers superior performance. Built for scalability, it supports larger networks with seamless expansion. Lower power consumption ensures energy efficiency, while advanced encryption and authentication provide robust security. Its weather-resistant design guarantees durability in harsh conditions.



ImGATl:

In-meter Gateway

Addressing Transfer of Information

RF-mesh and cellular communication combined in a single pluggable module, Kimbal's In-meter Gateway is the simplest and smartest way to deploy RF-mesh quickly and without any cumbersome planning for efficient data flow between connected smart meters and central systems, driving economical and uninterrupted energy measurement while meeting industry standards for regulatory compliance.

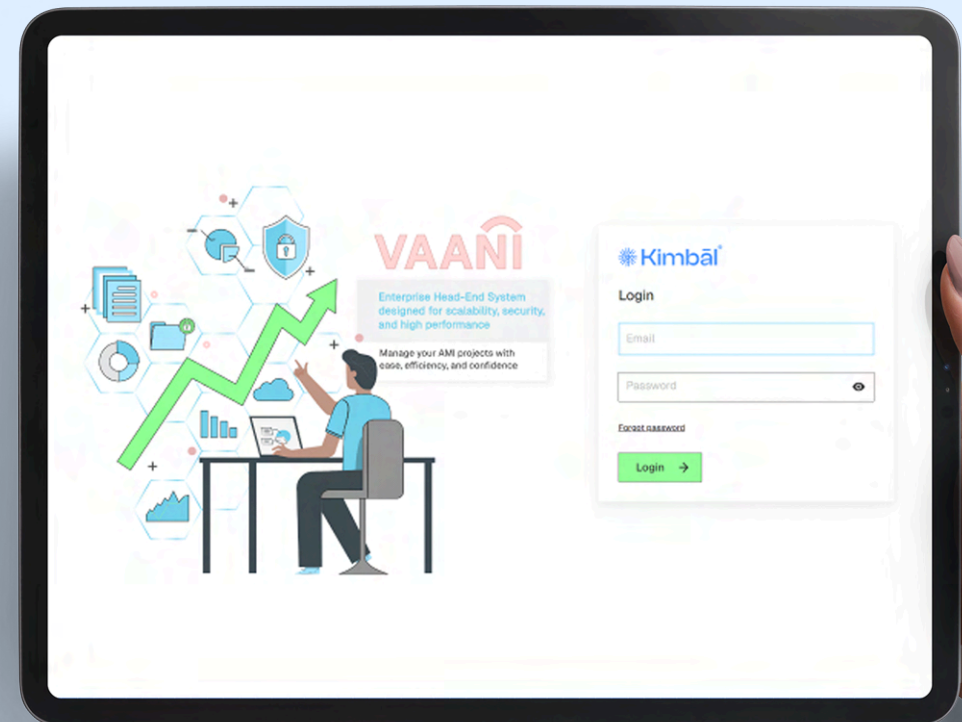


Vaani: Head End System

Vaani is an advanced Head End System (HES) designed to optimize smart metering operations with real-time insights, seamless automation, and automatic scalability. It ensures zero data loss, intelligent command execution, and robust security, making Advanced Metering Infrastructure projects robust, reliable and resilient.

Vaani is empowered with Kimbal's innovative Network Management System (NMS)

Kimbal's NMS is designed to optimize network performance, reduce downtime, and maximize efficiency for smart utilities. It enhances smart meter reliability, streamlines operations, and ensures seamless data communication, empowering utilities and smart grid operators with a more resilient and intelligent network infrastructure.



AI/ML Enabled Solutions:

Leveraging sophisticated
technology to build smart solutions

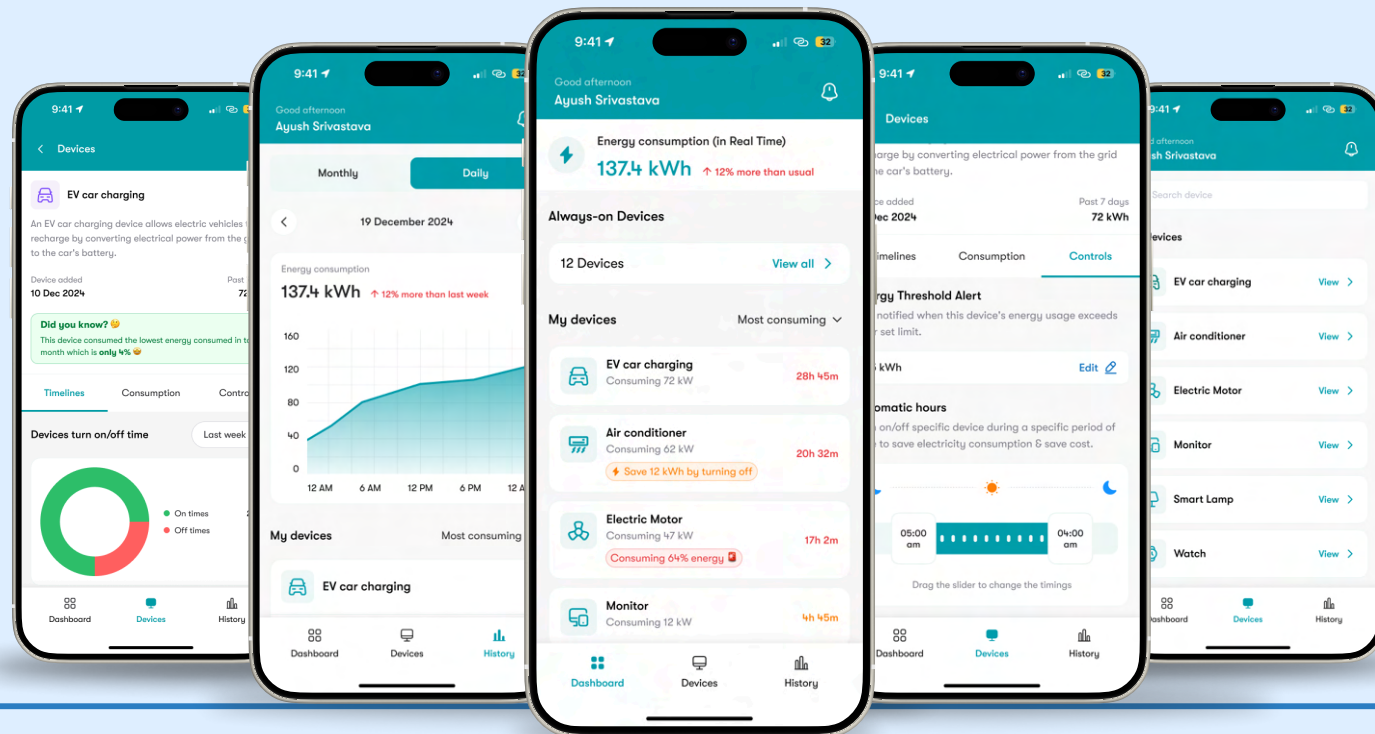
Samaksha: AI-enabled meter reading solution

An Artificial Intelligence-enabled meter reading solution that mitigates any chances of wrong meter reading or manual error happening by the meter readers. With over 175 million readings completed at 96% accuracy and 99% uptime, it ensures precise billing with minimal effort.



Non-Intrusive Load Monitoring (NILM) Solution : Beta version launched

NILM uses Advanced AI and ML models and algorithms supported by a readily pluggable device. The solution is designed to perform energy disaggregation of your smart devices and smart-plugged devices. You can access insights into your energy usage pattern and connected device's health remotely and in real-time.



Energy Management Tools:

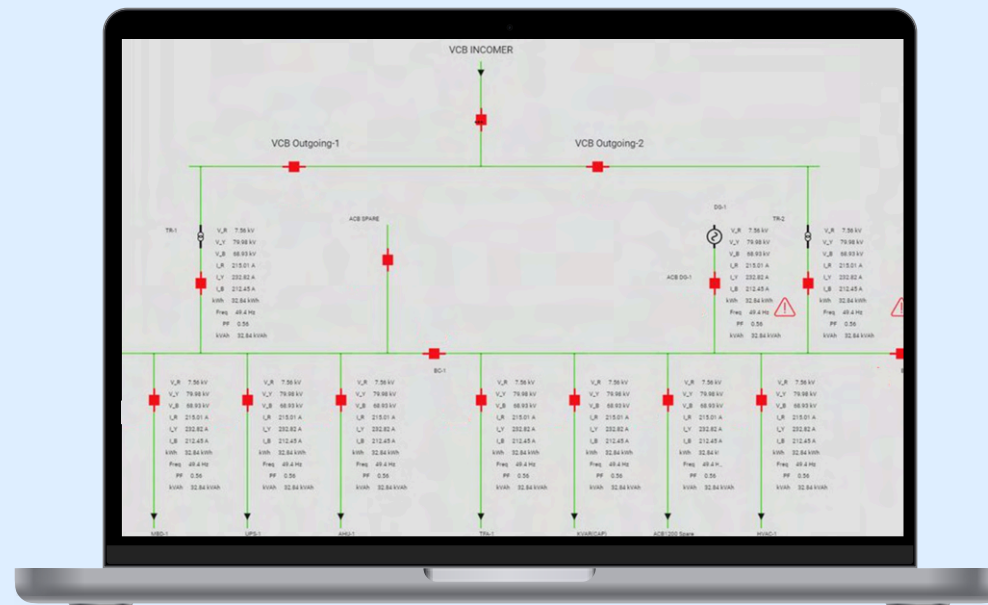
Monitoring Energy Quality and
Optimizing Energy Consumption for an
Empowered Tomorrow

SCADA by Kimbal:

Empowering Intelligent Operations

with Real-Time SCADA Control

Kimbal's SCADA solution is designed to provide real-time monitoring, control, and optimization of complex distribution networks across various industries. Whether managing electrical power distribution of distribution utilities or industrial plants, water networks in smart cities, or critical infrastructure in commercial buildings, this SCADA ensures seamless operations, enhanced visibility, and intelligent automation for mission-critical applications.



RTU by Kimbal:

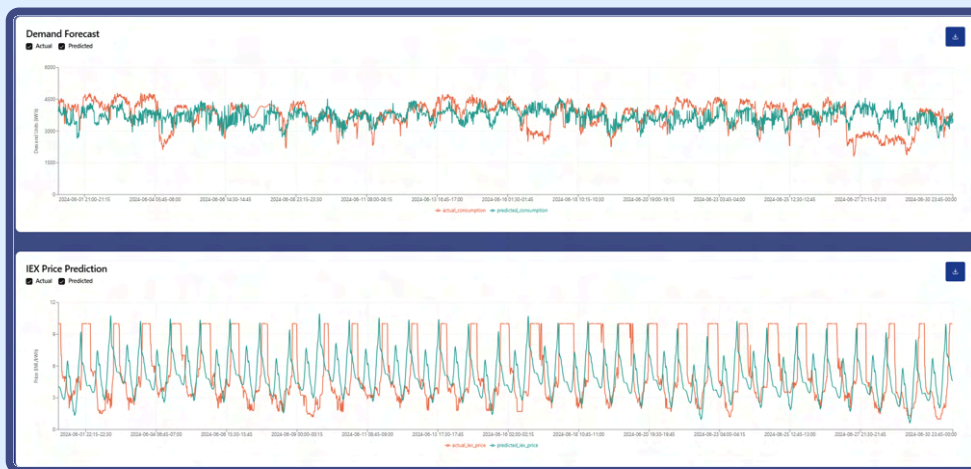
Powering the Future of Grid Intelligence with Reliable Automation & Smart Control

Kimbal's Remote Terminal Unit (RTU) is a sophisticated automation solution designed for substation automation and remote monitoring. It may act as a substation controller, a bay controller or as a data concentrator between the substation process bus and the SCADA (Supervisory Control and Data Acquisition) systems, ensuring real-time data collection, analysis, and control. With a modular and scalable design, our RTU seamlessly integrates into smart grids, and critical infrastructure enabling seamless integration between metering, grid automation, and remote monitoring for more intelligent and connected power infrastructure.



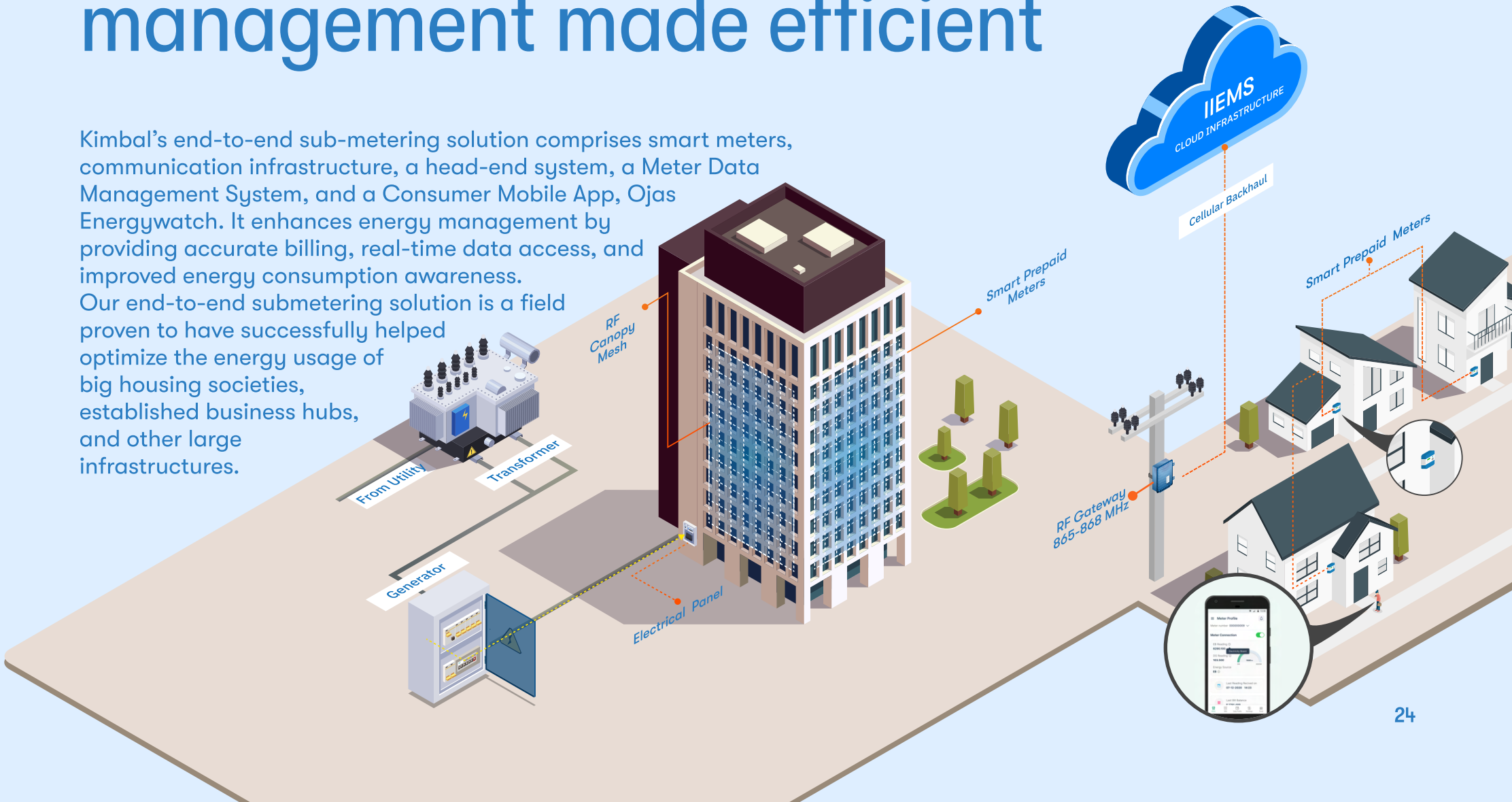
Energy Management Solution by Kimbal: Optimize Energy Consumption | Reduce Energy Cost | Maximize Efficiency

Our Energy Management Solutions drive efficiency and cost savings through AI-powered demand response and power procurement recommendations, optimizing energy costs. By enabling the curtailment of non-critical loads during peak hours and providing smart insights on green energy utilization, we ensure optimal energy usage.



Submetering by Kimbal: Infrastructure energy management made efficient

Kimbal's end-to-end sub-metering solution comprises smart meters, communication infrastructure, a head-end system, a Meter Data Management System, and a Consumer Mobile App, Ojas Energywatch. It enhances energy management by providing accurate billing, real-time data access, and improved energy consumption awareness. Our end-to-end submetering solution is a field proven to have successfully helped optimize the energy usage of big housing societies, established business hubs, and other large infrastructures.



Kimbal Mega Plant: State-of-the-Art Manufacturing Unit



Greater Noida, UP, India





Built-to-Scale

250,000 sq. ft.

state-of-the-art facility

90,000 sq. ft.

warehouse for finished goods

Built-in NABL Lab, Factory Acceptance Test Lab, and Experience Center

Production Excellence

10 Million

Smart Meter Manufacturing Capacity.

Automatic assembly lines

Precision-driven processes for unmatched quality

Zero Defect Goal: Total Quality Management

- Adhering to a unique manufacturing design process
- Continuous monitoring, auditing & optimization
- Strong Quality Management System (QMS)
- Commitment to safety, sustainability & defect-free manufacturing

Driving Efficiency with Special Purpose Machines- enabled Manufacturing

- In-house developed Manufacturing Execution Software (MES) manages PRODUCTION.
- Automation is enabled at all critical steps for high efficiency & accuracy
- Reduces variability enhances quality
- Supports streamlined manufacturing for high precision

Safety & Sustainability First

- Creating a Safer & Greener Workplace
- Secure facility with injury prevention measures
- Comprehensive workforce training, mentoring & supervision
- Focus on minimizing environmental footprint while maximizing productivity



Kimbal Mega Plant is managed by In-house Developed Manufacturing Execution System

Kimbal's in-house Manufacturing Execution System (MES) is vital to our production quality. This custom-built software, used at our plant, monitors every step, ensuring efficient operations, real-time data insights, and consistently reliable smart meters, uniquely tailored for this industry's demands.

Key Outcomes of the MES:

- **Production Volume:** To date, the MES has facilitated the production of over 1.42 million meters
- **Operational Efficiency** – Achieved considerable workforce optimization by reducing operator requirements from 36 to 8 per production line, minimizing manual intervention and dependency while enhancing process automation and productivity.
- **Issue Resolution** – Eliminated duplicate meter manufacturing, resolved RTC drift, and corrected firmware mismatch issues, ensuring product integrity and consistency.

Addressing Core Manufacturing Challenges:

- **Efficiency:** The MES optimizes workflows, reduces waste, and maximizes resource utilization, leading to higher production output with lower costs.
- **Reliability:** By constantly monitoring production parameters and identifying potential issues in real-time, the MES ensures consistent and reliable meter performance.
- **Traceability:** The system provides complete end-to-end traceability, allowing us to track every component and process involved in manufacturing each smart meter. This ensures accountability and simplifies quality control.
- **Robustness:** The MES contributes to the overall robustness of our smart meters by ensuring adherence to strict quality standards and optimized manufacturing processes.

Our Customers

AMISP Partner



Purbanchal Enterprises

Panasonic®



POLARIS

GVPR



adani



Utilities & Government Organizations



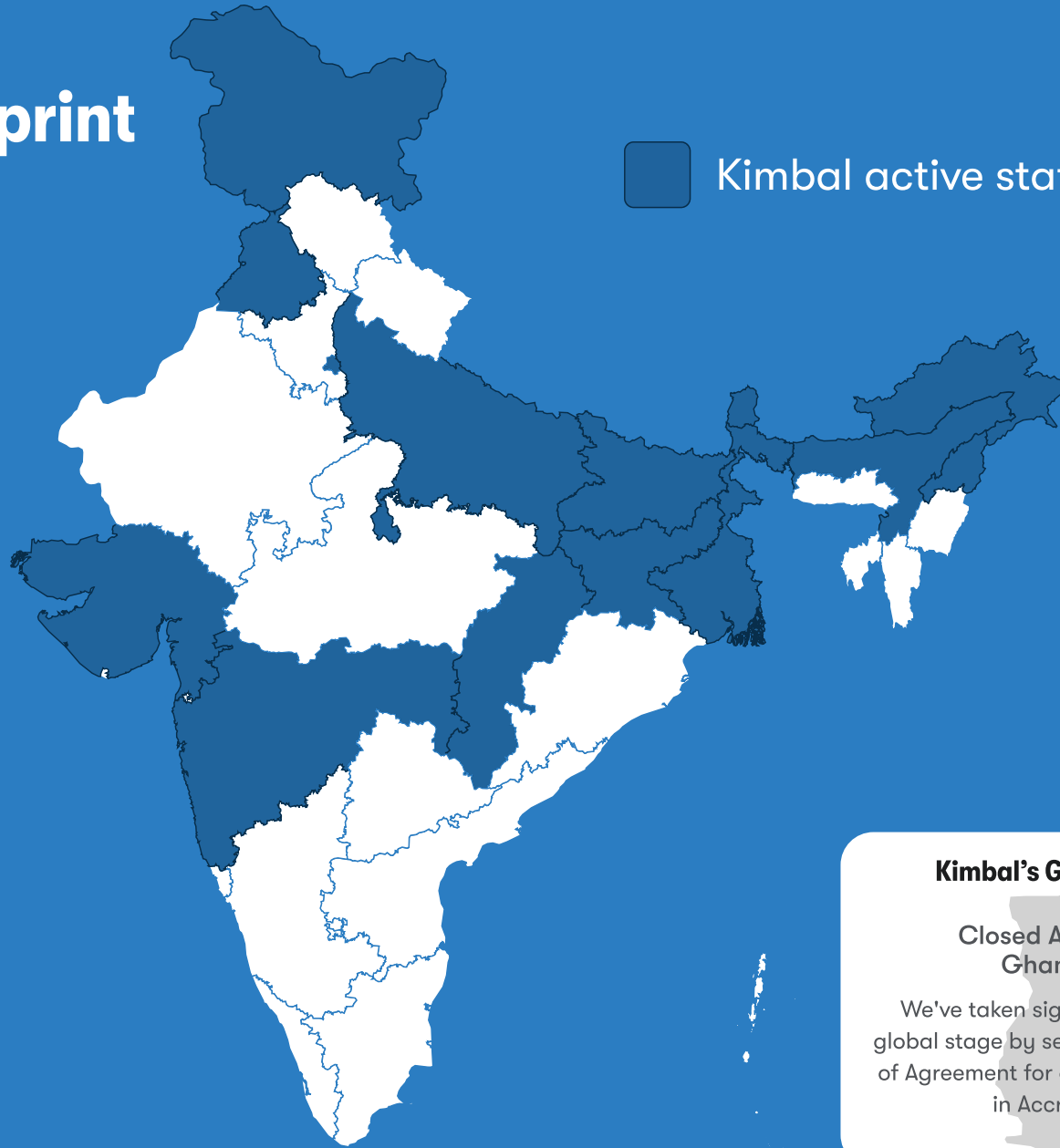
Indian Railways
Lifeline to the nation...



Kimbal's Nationwide Footprint

 Kimbal active states

- Assam
- Uttar Pradesh
- Bihar
- Chattisgarh
- Maharashtra
- Jammu & Kashmir
- Ladakh
- Gujarat
- Delhi NCR
- Arunachal Pradesh
- West Bengal
- Nagaland
- Sikkim
- Jharkhand
- Punjab



Kimbal's Global Footprint

Closed Agreement for Ghana Project

We've taken significant steps on the global stage by securing a Memorandum of Agreement for a RF Mesh pilot project in Accra, Ghana.

We are a 550+ strong workforce, keeping our focus on data, design, and engineering to build world-class scalable technology solutions with a goal to go global and cater to utilities worldwide.



Meet the Leaders



Ayush Sinhal -
Chief Executive Officer
& Board Member



Deepak Pandey -
Chief Operations Officer



Ganesh Sinhal -
Executive Director



Gurpreet Oberoi -
Chief Business Officer



Jaya Suri -
Chief Human
Resource Officer



Sanjeev Kumar -
Chief Technology Officer
& Board Member



Sunil Ishpuniani -
Executive Director
& Board Member



Anirudh Sinhal -
Executive Director
& Board Member

Advisory Board Members

Mr. Dinesh Kumar Mittal

Mr. Rakesh Nath

Mr. Alok Kumar

Our Values

Team of Equals

Equal opportunities for
Equal Talent.

Best Talent Only

Join the winning team.
Thrive with Kimbal!

Own it like a Boss!

Make it happen.
Be a Boss!

Always Working on our Next Best

Striving towards future
forward momentum

Together We Create Magic

Shared Dreams,
Shared Success!

Passionate go-getters

Fuelled by Passion,
Defined by Work

Our Behaviours

Customerholics

We are not just selling, we
are solving!

Detail-Obsessed

Perfection is in the detail.

Fail Fast, Fail Better

Our best teacher was our
last mistake.

Delivering the Best

Delivering the best, It's our
standard.

Our Certifications



Capability Maturity Model
Integration (Maturity Level 3)



ISO 9001:2015



ISO 27001:2013



OHSAS 18001:2007



ISO/IEC 17025:2017



CBIP 325



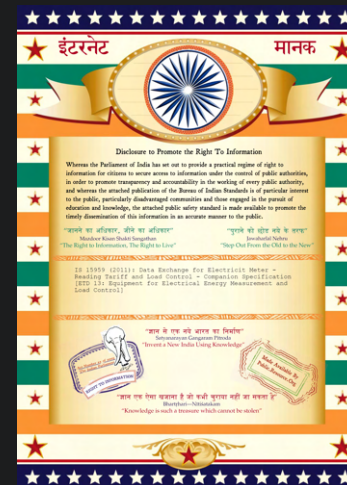
NABL Accreditation



IS:13779



IS:16444



IS:15959 DLMS



Great Place to Work-Certified™

Doing Our Bit:

Corporate Social Responsibility

Project Kritya: Empowering communities with Siksha, Swasthya, and Samriddhi.

- **STEM Education Enhancement:** We are establishing a fully functional STEM lab in a government school, regularly training teachers in STEM pedagogy, and providing 800 children with hands-on experiential learning opportunities.
- **Health & Hygiene Awareness:** Our ongoing campaigns on maternal, newborn, and adolescent health, WASH, energy conservation, and nutrition are actively reaching 2,000 community members and 400 families, promoting healthier lifestyles and well-being.
- **Community Health Initiatives:** We are consistently organizing health camps, providing general check-ups for 400 people, eye screenings and spectacles for 150 individuals, and increasing awareness of government health schemes among 400 beneficiaries.
- **Sustainability & Skill Development:** Through our continuous efforts, we are promoting energy conservation, career counseling, eco-club activities, and home visits to drive behavioral change



Doing Our Bit:

Launched our First ESG Handbook

At Kimbal, we are deeply committed to minimizing our environmental footprint while driving sustainable practices. Our approach to Environmental, Social, and Governance (ESG) focuses on making impactful decisions that shape a greener future for all.

Our Objectives

- Diversity & Inclusion

- Transparency & Reporting

- Carbon Footprint Reductio

- Ethical Practices

- Health & Safety

- End of Life Management

- Community Development
& Engagement

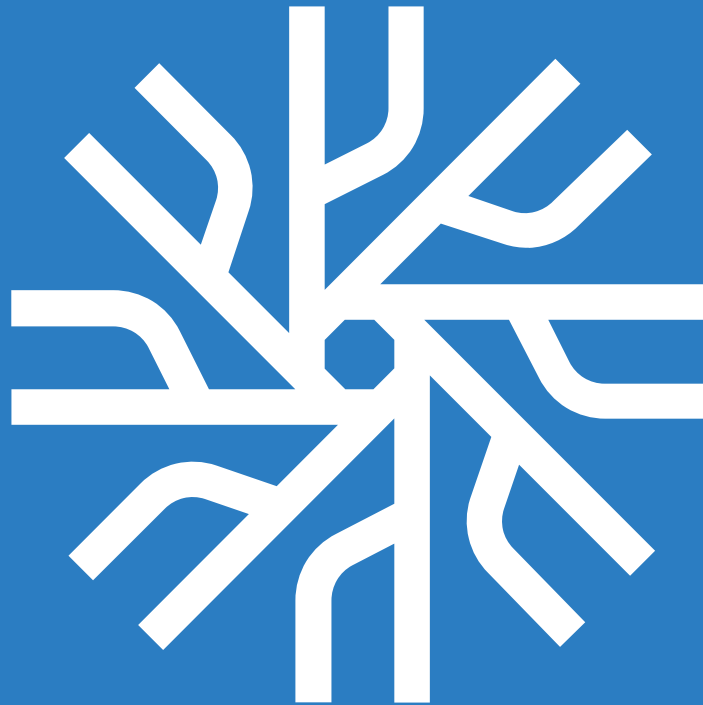


Thank you for taking time to learn about us.

Your suggestions and feedback are most welcome at happytohelp@kimbāl.io

Namaste

kimbal.io



Kimbal Private Limited

Building Reliable Tools To Modernize **Distribution Grid**