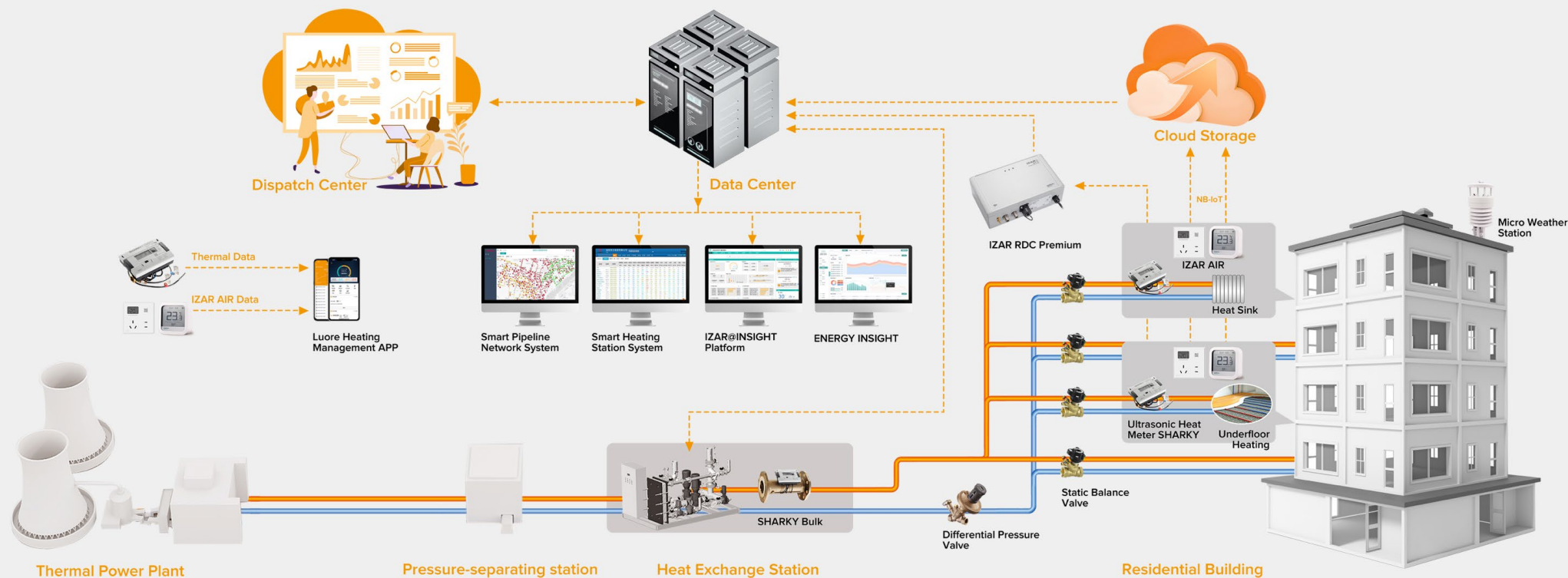


Luoyang –Fixed Network

Luoyang: Win-win smart heating solution

A smart metering and data integration helps Luoyang achieve significant energy savings.



SHARKY 775 Radio 434MHz Smart meters

The SHARKY 775 wireless ultrasonic heat meter operates at 434MHz and offers high-precision, high-stability metering performance, suitable for various residential and public heating applications.



IZAR AIR Smart terminals

The Room Temperature Monitor terminals IZAR AIR NB IOT is designed to measure temperature and humidity. With its sleek design and eye-catching display, it is ideal for indoor installation. Its precise temperature and humidity measurements and high-frequency data uploads efficiently in residential and public buildings, thereby enabling optimal energy allocation.

This product has been deployed at scale in Luoyang, providing a solid hardware foundation for precise metering and on-demand heating.

Heat is a valuable resource — and managing it efficiently starts with accurate data.

As China's largest city in terms of heat meter installation, Luoyang is a national-level demonstration project for smart heating. Since 2008, the city has been at the forefront of heat metering and billing. Today, over 400,000 wireless ultrasonic meters are installed, operating under a two-part tariff system.

“In line with energy-saving and carbon reduction targets, and in response to end-users' growing demand for accurate billing, heating companies urgently need a stable, efficient, precise, and visualized system.”

—Luoyang Heating Group Co., Ltd.



IZAR RDC Radio Receiver

The IZAR RDC series data concentrators serve as the critical gateway between field meters and the upper-level management platform. The IZAR RDC standard version is designed for routine data collection scenarios, while the IZAR RDC Premium, as an enhanced concentrator, offers greater data processing power and communication performance. Through a fixed network architecture, this product series enables centralized data collection and upload from hundreds of thousands of heat meters across the city, ensuring stable and complete data transmission and providing reliable support for real-time monitoring and dispatching of the heating system.



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IZAR INSIGHT Platform Software

The IZAR INSIGHT Platform is Diehl Metering's professional metering data management and analytics software. In the Luoyang project, the platform has enabled stable operation of large-scale wireless base stations, aggregating, storing, and processing heating data from across the city. With comprehensive data analytics, reporting, and billing management functions, the platform enables heating companies to monitor real-time network performance and provides data support for billing, energy efficiency assessment, and refined management.

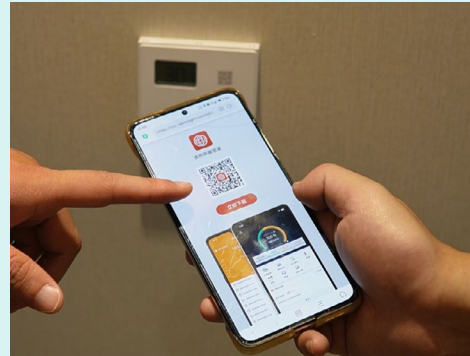
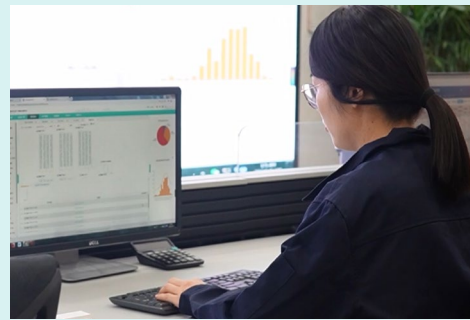
The Luoyang Xiyuan Jiadi residential estate, equipped with Diehl Metering products, comprises 1,373 households. Before the smart heating solution, the heating network lacked the granular data needed for precise regulation.

The transition from quarterly meter readings to hourly consumption data has fundamentally transformed network management. To date, Luoyang has implemented unmanned operation at 713 heating stations, reducing the workforce by over 2,000 people and cutting overall energy consumption by 25.8%, resulting in significant energy savings.

Within this system, accurate and reliable metering data forms the cornerstone for achieving energy-saving optimization and enabling self-management by users.

Anomalies are detected earlier. Leaks and inefficiencies within the distribution network and on the customer side are identified faster. Field interventions are prioritized based on data-driven visibility of network performance, enabling a shift from reactive maintenance to proactive optimization.

Integration combined with platform integration and demand-based regulation, has provided a valuable model for the industry.



EMPOWER A
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