

Diehl Metering

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Driving customer satisfaction and network efficiency through automated readings: 10 years of partnership with Izmir Jeotermal

For over a decade, Diehl Metering has been working with Izmir Jeotermal, the Turkish utility operating one of the world's largest geothermal district heating networks. While the initial point of contact was to provide meters using the cross-manufacturer Open Metering System (OMS) communication standard, the partnership has evolved to include a Walk-by solution with full interoperability that automates billing, boosts customer satisfactions and enables network optimization.

Situated in a region of geothermal activity, Izmir is the third most populous city in Turkey, with a population of around 3 million. In the west of the city, the Balçova and Narlıdere districts are served by Izmir Jeotermal. Diehl Metering's relationship with the utility began in 2011, when its network was composed of meters from multiple different brands.

Since each brand used its own radio system with proprietary protocols for collecting meter data, the utility struggled to realize automatic meter readings, resulting in a manual data collection process that was time-consuming, labor-intensive and prone to billing errors. Furthermore, the lag in collecting and assembling data made it impossible to perform advanced network analyses such as leak detection or flow optimization. An additional challenge was the high chlorine and sulfur content of the geothermal waters, which provided an aggressive environment and impacted the reliability of older meters in the network.

That same year, Diehl Metering launched its SHARKY 775 heat meters in Turkey with its local partner Madenerj Inc., and Izmir Jeotermal ordered 2,500 units to enable remote data reading for the first time.

Interoperable and durable

Diehl Metering's SHARKY heat meters rely on the cross-manufacturer Open Metering System (OMS) communication standard and not on proprietary protocols. This enables interoperability with meters and devices from different brands, making it the perfect fit for Izmir Jeotermal to overcome the challenges of its multi-brand network.

The utility was so impressed by this first collaboration that, in 2013, it selected Diehl Metering to replace existing heat meters in its network with new OMS meters. Despite competition from other suppliers, Diehl Metering and Madenerj Inc. were awarded the contract because of the high quality and long lifetime of their meters – important criteria given the corrosive nature of geothermal waters. As a result, another 11,000 SHARKY meters were added to the network.

Automated and intelligent

Since 2013, Diehl Metering has continued to work with Izmir Jeotermal to improve and optimize its district heating network. Today, the utility has integrated some 30,000 SHARKY heat meters, and meter data is collected remotely via a Walk-by solution. This enables the utility to save time and costs – and means consumers no longer need to be inconvenienced when a meter reader needs access to their homes.

Furthermore, the Walk-by method, has eliminated faulty readings, resulting in more accurate and fair monthly billing. As a result, customer complaints have decreased and Izmir Jeotermal is now perceived as an innovative, customer-friendly company. With data available more frequently, Izmir Jeotermal can also better monitor its network, empowering it to improve efficiency through enhanced flow rates, optimized return temperatures and leak detection.

Ongoing partnership

Izmir Jeotermal has expressed particular satisfaction with the robustness of Diehl Metering's SHARKY 775 heat meters. Even under the harsh conditions of geothermal water, the meters are designed to deliver robust and stable long-term measuring accuracy, ensuring their longevity.

Looking ahead, Diehl Metering will continue to provide additional heat meters every year as Izmir Jeotermal expands its distribution network to potentially serve more than 50,000 households. The utility is considering moving from Walk-by readings to a fixed network, and Diehl Metering has already submitted a complete study of the proposed upgrade, highlighting the many opportunities of smart data analysis and process optimization in a fixed network.

About Diehl Metering

Diehl Metering is a worldwide leader in the design, manufacture and supply of smart metering solutions. With over 150 years of experience, we empower utilities, municipalities and industries to take control of their infrastructures, bringing new efficiencies to the way they manage water and energy.

Our extensive range of services and solutions includes data-driven insights, IoT connectivity, fully-flexible software, and seamless intelligent metering. We also utilise artificial intelligence to boost performance and deliver cost savings for our customers.

Headquartered in Germany, we are a family-owned business with an international reach. We are proud to maintain our founding principles of quality, reliability and customer proximity while proactively shaping a better future for our customers and the communities they serve. Our approach is to think global and act local. By anticipating trends and remaining agile, we adapt and develop our strategy with our customers and for them.

In supporting their long-term growth, we also contribute to the sustainability of the planet, crafting innovations that enable our customers to make ever better use of the natural resources we all rely on.