

kevala⁺

CASE STUDY

Solar energy monitoring in
Washington D.C.

Challenge

Kevala, a data and analytics company that delivers actionable grid intelligence, was commissioned by a Washington D.C. electric utility provider to build a system to read and aggregate energy generation and usage from Community Renewable Energy Facility (CREF) solar energy systems. The CREF program enables D.C. residents, including low-income and renters, to subscribe to solar energy generated by community solar projects in their neighborhoods, providing direct access to clean energy without the need to own solar. Kevala's role as an aggregator requires them to read data from various meters and ensure accurate and timely reporting. To achieve this, Kevala built an integration with eGauge's, high-accuracy data collection system to read and deliver meter data on a daily basis. This enables the utility provider to issue accurate credit allocation and billing for solar subscribers.

Implementation

- Automated daily data collection from 204 active eGauge meters.
- Aggregation of generation data from multiple meter types into a unified format.
- Seamless transmission of data to the utility's billing system.
- Monitoring and reporting capabilities for system owners, subscription managers, and utility personnel are available through Kevala's platform.
- High reliability with a 99.4% successful data retrieval rate and over 99% data completeness on eGauge meters in 2025.

Solution

Kevala integrated eGauge meters into its Platform to support energy monitoring and reporting. With over 200 eGauge meters in operation, they established an automated pipeline that retrieves and processes energy generation data daily. This data is then logged, formatted, and sent to the utility provider for billing reconciliation and credit allocation to solar subscribers.



Why eGauge

Kevala selected eGauge as the first supported meter manufacturer due to their widespread use among existing CREF system owners, well-defined API documentation, and strong customer support. eGauge's ability to integrate seamlessly into Kevala's data aggregation pipeline made them a preferred choice for guaranteeing consistent and accurate energy data. The high data accuracy and successful retrieval rates ensured that Kevala could confidently report to the utility provider, minimizing billing discrepancies and improving overall efficiency.

Conclusion

By leveraging eGauge technology, Kevala successfully provides energy monitoring and reporting services that support the expansion of community solar programs in D.C. Their partnership with eGauge ensures that renewable energy data is collected, processed, and delivered efficiently, empowering residents with clean energy options while improving overall grid transparency. The collaboration between Kevala, eGauge, and the utility provider demonstrates the power of accurate, automated energy monitoring in supporting sustainable energy initiatives and equitable energy access.

Results

- A unique industry solution where billing data is generated by system-owned meters, instead of utility-owned meters.
- Reliable, standardized energy data reporting, improving transparency for system owners, utilities, subscription organizations, and regulators.
- Streamlined meter integration across multiple system owners, reducing administrative burden.
- Strengthened partnership with the utility provider by securing a robust data pipeline.

"I think eGauge meters are great. They're really easy to use, feature-rich, and provide a wealth of information through the meter UI and comprehensive API. With the eGauge meters, we're able to talk directly to each meter in real-time...there's a lot of diagnostic information available, which leads to a clear understanding of what is happening in the field."

-Pete Baker, VP Product

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