ENERGIS For Irrigation

ENERGIS®

CASE STUDY

Founded in 1938, Delano Earlimart Irrigation District (DEID) supplies water to 56,500 acres of farmland for the irrigation of permanent crop including grapes, kiwis and pomegranates. Part of a Joint Power Agency, DEID procures electricity cost-effectively to pump water from the Friant-Kern Canal to nearly 1,000 turnouts in the fields. True to the deregulation of the California grid, DEID has a sophisticated electric energy and distribution supply from two separate utilities, while pooling its wholesale supplies with three other entities.

Goals

- Provide a Manager's summary of updated operations with key indicators.
- Shadow-calculate the utilities invoices ahead of time with a breakdown of costs by energy, demand, reactive demand etc.
- Provide a preventive maintenance tool by monitoring the pump stations in real time with historical data for baseline reference.
- Help the Water Master visualize and optimize pumps operations to reduce demand charges, improve wear and tear and achieve advanced energy management.

Approach

Until now management reports required waiting for meter readings and utility invoices and extensive staff resources to calculate the energy component for the cost of the irrigation water. But in spring of 2015, EPSIM Corporation, a Boulder Colorado company, which is Instar's Value Added Reseller of ENERGIS, deployed ENERGIS to monitor DEID's largest lateral. ENERGIS takes real-time data from DEID's SCADA system like active energy, reactive energy, active demand, reactive demand, voltage, current. Also in real-time it calculates power factor, load utilization, time utilization and further performance indicators.

Altogether ENERGIS process online over 1,200 nodes.

Based on quick and successful ENERGIS implementation EPSIM has already received a new request from DEID to integrate its two dual-axis photovoltaic generators.

25 YEARS OF EXPERIENCE

$ 1.5B OF ENERGY SAVINGS

You can access ENERGIS from an Internet portal or install ENERGIS in your LAN.

You can subscribe monthly to ENERGIS or purchase a license and subscribe to technical support

Your facility team can configure ENERGIS or you can contract INSTAR's VAR or a combination of both

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MAIN FUNCTIONS

- Data collection and integration from utility meters, smart meters, data loggers, SCADA, facility management systems, data archives, ERP, web services, handheld terminals, mobile apps
- Data validation
- Meters administration
- Controlling
- On-line demand control
- Forecasting, analytics, planning, reporting, benchmarking
- Local power generation control
- Monitoring, targeting and warning
- Micro grid operation control

FEATURES

- Collects and provides data, forecasts and simulations in real time
- Integrates all possible data and energy types (from meters, calculations, nodes, measured locations)
- Turns energy data into actionable information
- Indicates efficiencies compatibly with any existing system
- Offers customized reports and benchmarking
- Sends instant alarms (to smart phone, tablet, computer)

AREAS OF USE

- Real-time demand monitoring
- Optimization of operation scheduling
- Performance indicators
- Real-time cost estimate
- Benchmarking

HEADQUARTERS

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