

CUSTOMER CASE STUDY

Digital transformation drives operational efficiency at Riverside Public Utilities

Riverside Public Utilities - www.riversideca.gov

Industry - Technologies Industry

Partner - KBC

Goals

- Integrate all real-time operational data into one data management system
- Create dashboards and automated reports for improved data access

Challenges

- Integrate all real-time and operational data into AVEVA™ PI System™, and create dashboards and automated reports for deeper and faster data access

Results

- Reduced staff time spent on reporting and reduced operations cost save Riverside more than \$820,000 annually

Solution

- AVEVA™ PI Vision™
- AVEVA™ PI Datalink™

Riverside Public Utilities serves electric power and water to 324,000 southern California residents east of Los Angeles. As a municipal water utility, Riverside has a lot of monitoring and reporting responsibilities. Before integrating its various data sources, Riverside staff spent a lot of time creating daily reports, and by the time they were created, the reports were a day old. By collecting and contextualizing its data in AVEVA PI System, Riverside was able to automate reporting while also making it more accurate and timely. The company is using AVEVA PI System to support both water and power operations, and GIS integration to map and display real-time digital data.

The value of a single source of truth

Before implementing AVEVA PI System, Riverside had data in a variety of separate systems: analytics in SAS, mapped data in GIS, control system data in SCADA systems, and more. Timely data is critical to operational and fiscal decisions that must be made within the utility, but with more than 30 data sources and hundreds of thousands of data points being collected daily, pulling it all together into daily reports was incredibly time-intensive for staff. One daily report took four hours to produce. Another required 15 minutes out of every hour in the day.

Making matters more complex for Riverside is the CAISO market, the wholesale electricity market that manages electricity flow throughout the state. Prices on the market fluctuate constantly, and must be monitored in real time along with the utility's own operational data.

Thanks to data integration, dashboards and automated reports have now replaced many of the tedious manual calculations that used to be run by Riverside staff.

"By bringing in PI as a data hub, we've been able to create near real-time AVEVA PI Vision displays and automated AVEVA PI DataLink reports. That has helped create an ease of access to previously difficult data, and also just eliminate huge time spent on reports," said Brando Crozier, an administrative analyst with Riverside. "We've been able to use that time to focus on projects we couldn't get to. With the new information we're getting, we're realizing new approaches that we need to take."

Building insight

To design and support the system, the utility brought on two full-time consultants from KBC Technologies, a company that specializes in operational technology and IT for the energy and chemical industries. Riverside has been investing in training up its own in-house "super-users," working on more in-house expertise with help from self-paced online courses provided by AVEVA.

AVEVA PI System is also opening up areas of data that were previously available only to higher-level operators. One dashboard shows current water production well flow rates at individual wells across Riverside's territory, pulling data from SCADA systems that have limited user access because of security reasons, and making it available across the enterprise.

"It's very user-friendly," said Robin Glenney, Riverside's water quality administrator. "People in different buildings and in different departments can just log into PI and pull that information, instead of having to submit and gather requests."

Riverside has also used AVEVA PI System to develop a mobile app for water quality technicians in the field, who can now adjust their sampling routes in response to real-time data accessed through a cell phone.

"We have increased visibility into our systems and assets. All of this has helped improve our reliability and reduce our operations costs."

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Brando Crozier

Administrative Analyst, Riverside

Saving staff time delivers results

Digital transformation is freeing up Riverside staff from the daily grind of reporting. The proof is in the bottom line: Since implementing AVEVA PI System, Riverside has made a return on investment of more than \$820,000 a year, a figure that far surpasses the amount the utility spends on the annual cost of an Enterprise Agreement. Further projects are in development that are expected to increase the financial benefit realized through digital transformation.