

Digital Transformation Drives Operational Efficiency at Riverside Public Utilities

INDUSTRY WATER

CHALLENGE

Riverside had a wealth of data, but in 30 separate systems, and reporting was time-intensive.

SOLUTION

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

BENEFIT

Reducing staff time on reporting, increasing reliability, and reducing operations costs are saving Riverside more than \$820,000 annually and freeing up time for other projects.

PARTNER

KBC TECHNOLOGIES

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 their 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 their data in the PI System™, Riverside was able to automate reporting while also making it more accurate and timely. The company is using the PI System to support both water and power operations, and also using GIS integration to map and display real-time digital data.

The Value of a Single Source of Truth

Before implementing the 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 fifteen 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 PI Vision

displays and automated 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

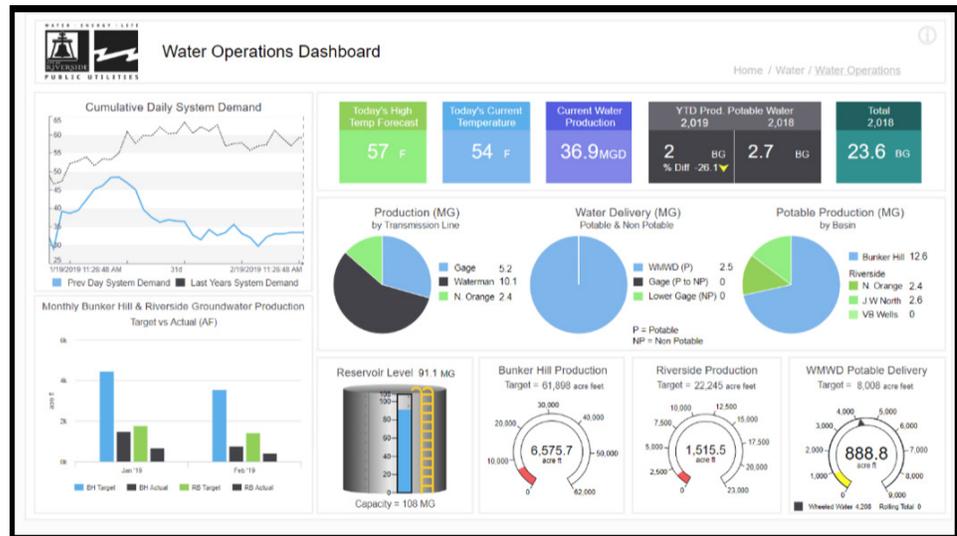
Riverside is currently in the fourth year of a five-year Enterprise Agreement with OSIsoft. To design and support the system, the utility brought on two full-time consultants from KBC Technologies, a company that specializes in operational technology and IT for the energy and chemical industries. Riverside has been investing in training up its own in-house “super-users,” working on a transition to relying on more in-house expertise, with help from OSIsoft’s self-paced online courses.

The 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

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

— Brando Crozier
Administrative Analyst
Riverside



With the PI System, Riverside staff can access well production data securely at a glance without logging into the SCADA system.

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 the 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.

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 the 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 with OSIsoft. Further projects are in development that are expected to increase the financial benefit realized through digital transformation.

For more information about Riverside and the PI System, watch the full presentation here.

Glenney, Robin and Crozier, Brando. “Digital Transformation: Using Data to Drive Operations Efficiency at Riverside Public Utilities.”