



CASE STUDY

**KEEPING THE WATER FLOWING: MEETING TIGHT DEADLINES AND
COMPLEX REQUIREMENTS WITH AN ALL-IN-ONE POWER SOLUTION**

BACKGROUND

According to Environmental Protection Agency (EPA), water and wastewater plants typically are among the largest energy consumers. Electric power can account for almost 25-30% of their operating expenses thus presenting the biggest opportunity for energy optimization and cost effectiveness. In addition, these facilities often face fluctuating power loads due to varying pump activity, especially during peak usage times

Thus, for water/wastewater treatment facilities, power reliability and resiliency are mission critical. Downtime in power systems can lead to interruptions in water distribution, affecting both public health and safety. Resiliency against power outages and the ability to recover quickly from disruptions are essential, as even short outages can result in costly water contamination or service interruptions. Ensuring a continuous, reliable power supply is not only vital for day-to-day operations but also for meeting regulatory standards and maintaining public trust.

KEY OUTCOME

Lead time of

**12-14
weeks**

**vs industry standard of
40-52 weeks**

THE CHALLENGE

The water and wastewater treatment agency needed a variety of equipment, including a high ampacity dual purpose docking station, automatic transfer switch (ATS), and a distribution panel (DP) to manage multiple pump stations and clean water distribution within a portion of the southern US region.

Targeting a project completion date of Q1 2025, they faced a significant challenge with the delivery of the power systems because the industry standard lead times were 40-52 weeks. This delay threatened the agency's project deadline, which was essential to maintaining reliable water distribution across the region.

SOLUTION & BENEFITS

The Trystar design & engineering team, working together with the generator dealers proposed a customized high ampacity, dual breaker ATS solution that would combine an SER ATS, a dual-purpose docking station, and two distribution breakers into an integrated all-in-one solution. This enabled the customer to procure every component from a single source as a turnkey solution, and crucially, meet the tight, project turnaround deadline.

In the end, this project not only ensured reliable water service for the community but also underscored Trystar's commitment to providing customized, high-impact solutions for critical infrastructure needs.

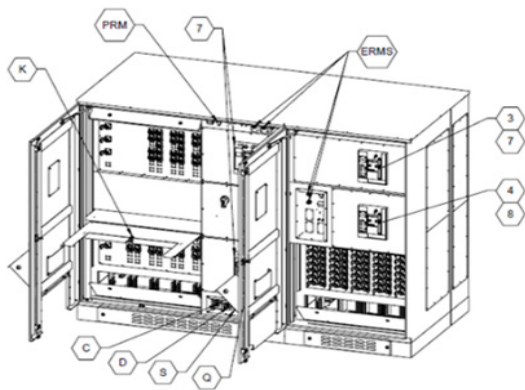


Figure 1: Rendering of Trystar's Solution

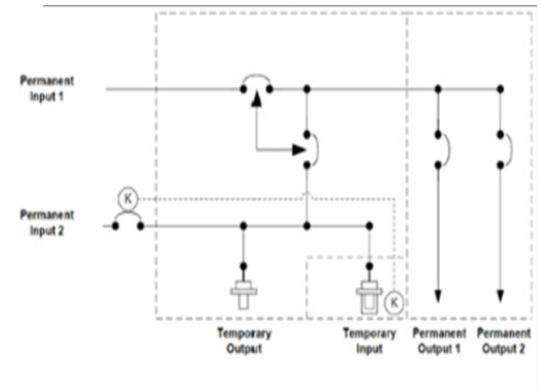
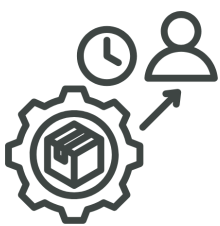


Figure 2: One line diagram of Trystar's Solution



Integrated Solution Enables 3X Faster Lead Time

The fully integrated design allowed Trystar to eliminate vendor delays, delivering a complete system in 12-14 weeks, compared to the industry standard 40-52 weeks.



Additional Cost Savings

By consolidating multiple components into a single system, the customer was able to reduce installation complexity and reduce labor & material costs in addition to maintenance costs for the future.