

ESE network upgrade reduces product waste and downtime

Challenge

A mixing and blending facility in Georgia requested a network assessment from ESE after a power failure caused them to dump \$30,000 worth of product on two separate occasions. During the power failures, there was a lapse in steam barrier temperature recording, meaning quality assurance couldn't verify that the temperatures remained in a safe range. ESE's network assessment found several issues with the existing network including:

- There were several potential points of failure in the system.
- A number of the switches were at or near full capacity.
- IP Ranges were nearly exhausted on multiple VLANs.
- A "daisy chain" style network configuration was being utilized, resulting in increased downtime while performing maintenance on unrelated equipment.
- The capability to extract status information from the network devices was nonexistent, making troubleshooting difficult and extending down periods.
- Full network power backup capability was not present; resulting in product waste during power failures.

Solution

ESE developed a preliminary design with increased reliability that included redundancy and provided capacity needed for future expansion. Once the design was accepted, ESE upgraded the existing network, providing design services, switch and PLC setup and programming, network configuration, full network installation and on-site commissioning. Some elements of the new network topology included zone enclosures to support individual workcells within the facility, switches that allowed maintenance to view, troubleshoot, and test the network directly through their existing SCADA system, full network backup power, and up-to-date detailed prints.



Results

The plant is now experiencing a decrease in unplanned downtime caused by the previously unreliable network. ESE drastically reduced the risk of downtime due to unrelated equipment maintenance or network devices failing. Troubleshooting time has been reduced due to the new robust system, which allows for quicker identification and analysis of failed components. The customer has also reduced product waste since the new network supports the continued collection of critical product safety data even in the event of a power failure in the facility.

*Contact us today at **1-800-236-4778** or [by e-mail](#) and learn how ESE can work for you.*