

ECONOMY, ENERGY & ENVIRONMENT (E3) PROJECT

ABOUT COALFIELD SERVICES. Coalfield Services, Inc. (CSI) was established in 1977 in Wytheville, Virginia. CSI has since grown as a consequence of their reputation for honesty and dedication to serving customers' needs. Their employees (approximately 80) represent hundreds of years of experience in civil / mechanical facilities construction and maintenance.

THE CHALLENGE. CSI was looking for process improvements, energy conservation opportunities, and pollution prevention/environmental compliance assurance. Due to an increase in work orders and limited staffing, CSI asked the Manufacturing Technology Center (MTC) to help with improvement opportunities and compliance assurance. MTC is a MEP service delivery partner of GENEDGE, the Virginia affiliate of the NIST MEP.

MEP CENTER'S ROLE. The MTC received a grant from the U.S. EPA for the delivery of an Economy, Energy and Environment (E3) project in Southwest Virginia. The project scope was to improve CSI's energy demand requirements in order to reduce cost, power demand and carbon footprint. The MTC experts in Lean, Environmental and Energy practices performed an E3 Technical Assessment and Lean & Green activities to identify strategies for better efficiencies in energy usage, process flow and pollution prevention within their organization.

The MTC-CSI Management team decided that the E3 project would proceed according to the following three distinct sub-projects:

1. A cross-functional assessment team to assess opportunities to reduce the energy requirements for the two facilities in their organization.
2. A three-day 5S Kaizen event was conducted by the team to further enhance the facility's existing procedures and systems especially in the electrical assembly area to eliminate constructing an extension on the existing facility.
3. A thorough review of plant processes was reviewed to identify pollution prevention opportunities including regulatory compliance to ensure compliance, prevent landfill contamination and eliminate the possibility of fines.

"The E3 project work is allowing improvements in our business that we would have not been able to accomplish without assistance from The Manufacturing Technology Center."

-Fielden Sanders, Controller

RESULTS



\$302,000 one time savings from not having to expand facility



\$6,000 annual cost avoidance - insurance & taxes



\$4,800 annual energy savings



Ongoing savings from lighting upgrades and air system improvements

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