

# TRYSTAR® ENERGIZES MICROGRID AT FARIBAULT MANUFACTURING FACILITY

FARIBAULT, Minn. – August 9, 2023 – Trystar, a leader in electrical testing, control, conversion, and conveyance products, recently energized a microgrid at its Faribault manufacturing site to help reduce its carbon footprint by generating 185,000kWh of clean power annually.

Trystar's microgrid consists of solar panels, wind turbines, and the latest battery energy storage system (BESS) technology to store excess energy. The 320 solar arrays are installed on the roof of the building and can generate 173kW (combined/full potential) per day. Twin vertical-axis wind turbines (VAWTs) contribute to energy collection with a combined potential of 7.0kW per day. The lithium iron phosphate BESS system can store up to 232kWh of electricity. To augment and maximize the value of the BESS, Trystar also installed a 350kW natural gas standby generator to supplement charging and address peak demands as necessary. In addition to helping power the facility, the system supplies energy to eight 32 Amp electrical vehicle (EV) charging stations for guests and employees.

The microgrid's smart energy management system efficiently and effectively distributes energy. It constantly monitors energy production and consumption and adjusts energy flow accordingly. For example, if energy demand is low, the excess energy produced by the solar panels and wind turbines will be stored in the batteries for later use. On the other hand, if energy demand is high, the smart system will prioritize energy delivery to the areas of the factory that require the most energy.

Aaron Padrnos, Sr. Manager of Customer Experience and project lead, says, "The new microgrid is one of the first steps in our journey to protecting our natural resources and ensuring the welfare of future generations. Yet, the microgrid also serves as a practical laboratory. It will sustain our journey and those of our customers by allowing us to create and validate new sustainable energy solutions and systems. It aligns well with our expertise and our penchant for innovation," concluded Padrnos.

Trystar plans to learn from this first phase of its microgrid. In the future, it aspires to scale the system to satisfy additional power requirements at the Faribault site. It will also be reviewing potential applications at its other four manufacturing facilities. The present system generates 185,000kWh of electricity annually. It is equivalent to offsetting CO<sub>2</sub> emissions from:\*

- Burning 146,859 pounds of coal
- Consuming 303 barrels of oil
- Driving 29.2 gasoline-powered passenger vehicles for one year
- Consuming 14,753 gallons of gas

“Trystar provides electrical power solutions to customers who can’t rely on the grid,” said Trystar CEO A.J. Smith. “Microgrids are an important part of the solutions we plan to provide our customers. By using solar and wind power sources for our microgrid, we are gaining power resiliency and reliability for our facility, actively reducing our carbon footprint, and promoting a greener approach to energy consumption. Our microgrid offsets conventional electricity generation, which relies heavily on fossil fuels. This initiative helps combat climate change and sets an example for other businesses and industries to adopt renewable energy solutions,” concluded Smith.

\*[United States Environmental Protection Agency, Greenhouse Gas Equivalencies Calculator](#)

### About Trystar

Trystar designs and manufactures a wide range of portable and industrial power products, including portable renewable hybrid energy systems, panels, I-Lines, transformers, portable automatic transfer switches (ATS), and welding racks. It also manufactures generator docking stations, load banks, and UL-891-rated switchboards. Trystar cable products include portable and industrial power, welding, utility, and medium voltage cables. Trystar offers emergency lighting inverters, power conditioning and voltage regulation equipment, industrial DC power supplies (rectifiers), uninterruptible power solutions, sequence-of-events recorders (SER), and GPS time reference and synchronization devices. The manufacture of prefabricated conventional and blast-proof remote instrument enclosures (REIs) and E-Houses complements its diverse solutions portfolio.

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