White Harvest Energy

CHP CASE STUDY

BACKGROUND

A food processing plant in Northwest Tennessee implemented a biogas CHP system as part of a $37 million investment in a new 180,000-square-foot-facility, a $3 million investment to its existing facility and a new product line. The investment includes an anaerobic digestion expansion.

The CHP system runs off of biogas produced by anaerobic digestion of organic waste from the food processing plant.

QUICK FACTS

In Operation: Nov 2022

Site: Food Processing Plant

Location: Union City, TN

Generating Capacity: 100 kWe

CHP Equipment: One Reciprocating Engine & Exhaust Gas Heat Recovery

Heat Recovery: Hot water

Type of Fuel: Biogas

APPLICATION

biogas is used to generate electricity and hot water. The hot water directed back to the anaerobic digestion process to assist in the process of breaking down the organic material. The facility became operational in the fourth quarter of 2022..



SUMMARY OF BENEFITS

- Generates:
  - 700 MWh electricity annually
  - 405 MBtu/hr hot water
- Reduced operating costs
- Lower reliance upon the electrical grid
- Reduced carbon footprint
- Improvement in power factor
- Qualified for Investment Tax Credits

PROJECT TEAM

CHP Supplier: White Harvest Energy

CHP Manufacturer: 2G Energy

Contractor: RFW Construction Group

Maintenance: White Harvest Energy

CHP EPA COMBINED HEAT AND POWER PARTNERSHIP

www.whiteharvestenergy.com
info@whiteharvestenergy.com

Tennessee Advanced Energy Business Council MEMBER

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