

VA WACO CHP SYSTEM

WACO, TX – 1,500 KW COMBINED HEAT AND POWER (COGENERATION)

The 1.5 MW CHP plant at the Doris Mill VA facility in Waco, TX was originally constructed around 2018. In 2021, a few issues outside of the VA's control caused the CHP system to be taken offline and sit idle. The CHP is comprised of 5 major components: gas turbine, heat recovery steam generator with supplemental duct burning, natural gas compressor, air compressor, and controls. The VA attempted to make repairs to the gas compressor, air compressor, controls, and the exhaust gas diverter at different times to get the plant operational, but ultimately were unsuccessful as much of the equipment is interconnected, requiring complex coordination.

Subsequently, the VA awarded White Harvest Energy with the contract to assess the condition of the equipment, to make the repairs to bring back the CHP online and to operate the system going forward. White Harvest Energy is also responsible for . the periodic and emergency maintenance on the entire CHP system.

SOLUTION PROVIDED

- **Generating Capacity:** 1,500 kWe
- **CHP Equipment:** One Kawasaki combustion turbine
- **Heat Recovery:** Steam
- **Type of Fuel:** Natural Gas

OUR ROLES

- Initial Condition Assessment
- Repair, Retro-commissioning, and startup
- Operations & Maintenance

IMPACTS

- Co-generation outputs:
  - 8,000 MWh electricity annually
  - 24,000 lb/hr steam
- Reduced cost for energy needs
- Lower reliance upon the energy grid
- Reduced carbon footprint
- Improvement in power factor