



Cogeneration Facility

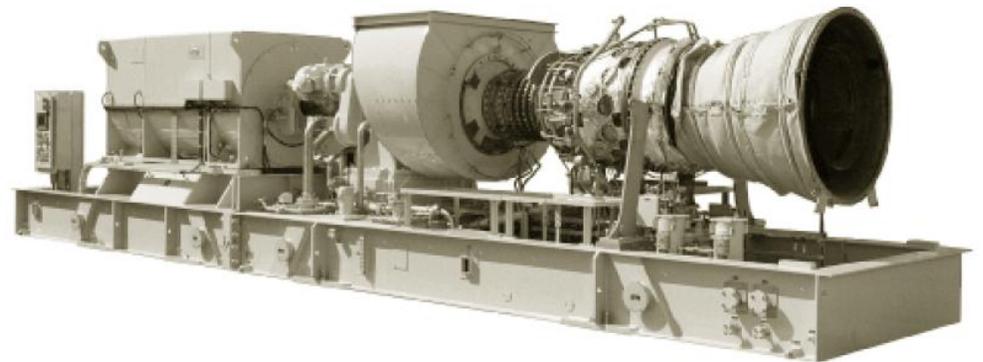
Cogeneration Facility

Project Specifics

- Supplies power and steam to a paper mill
- New facility designed to meet current and future utility demands
- 13MW Solar Titan dual fuel combustion turbine generator
- 160 KPPH Rentech heat recovery steam generator
- Forney duct burner
- Cutler-Hammer 13.8 kV switchgear
- Square D 460V motor control center

Challenges

- Plant in operation 24/7/365
- Communication interfaces to CTG, HRSG, duct burner, switchgear, MCC
- Utility intertie auto-sync and load shed



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Project Requirements

- Engineer the control strategy
- Design & program the Human Machine Interface
- Program the process control PLCs
- Control panel design assembly & factory acceptance testing in TVC's UL508A shop
- Design the communications networks
- Design & program the HMI to collect critical process data & produce various reports
- Installation supervision
- System start-up & system acceptance testing
- Instrument and final control element specification, calibration and testing
- Operator training
- Operations and maintenance manuals
- Preventive maintenance & ongoing 24/7/365 support (as required)



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Solutions

- Designed, fabricated and delivered by TVC Systems
- Intellution iFix SCADA and View with iHistorian data collection
- Sytech XLReporter reporting software
- Allen Bradley hot standby ControlLogix controllers
- Basler Electric auto synchronizer
- Ethernet and DH+ communication networks, with fault tolerant switches and remote panels
- Load shed relay panel
- Custom operator console

Results

- Provision of a single intuitive and centralized control system interface
- Process automation decreases manual operations to be performed by plant personnel resulting in single operator per shift operation
- Automated data collection & reporting
- Monitoring and reporting of energy usage for full facility
- Designed for remote monitoring
- Interface to Honeywell Measurex plant DCS
- Automated load shedding upon utility power failure



TVC Systems

