



# **Bradley International Airport Energy Center**

# Bradley Airport Energy Center

## Project Specifics

- Bradley International Airport Terminal Energy Center
- New facility designed to meet current airport terminal demands
- 20,000 sq. ft. building
- Two 750 ton electric Trane chillers and one 500 absorption Trane chiller
- Two 65,000 PPH Cleaver-Brooks boilers
- Three 1.25 MW Waukesha gas engine generators with Russelectric switchgear

## Challenges

- Plant in operation 24/7/365
- Communication interfaces to chillers, boilers, switchgear, and engine generators
- Distributed I/O system architecture



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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
- Remote access for design, monitoring & control
- Operations and maintenance manuals
- Preventive maintenance (as required)



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## Solutions

- Designed, fabricated and delivered by TVC Systems
- RSView32 SCADA, Active Display Server, and Active Display Client for remote plant monitoring and control
- Allen Bradley ControlLogix controller platform
- Modbus serial communication interface module for boiler, switchgear, engine generator, and chiller communication
- Historical & real time trending plant data

## 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
- Excellent overall energy center efficiency
- Automated data collection & reporting
- Monitoring and reporting of energy usage for full facility
- Remote access allows plant monitoring and control from any location





**TVC** Systems

