



Hospital Cogeneration Facility

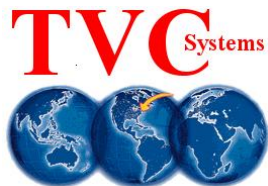
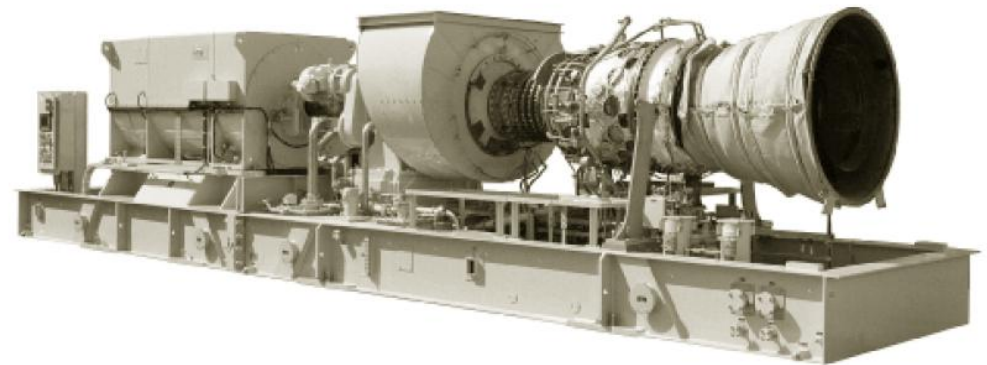
Hospital Cogeneration Facility

Project Specifics

- Generates electricity, steam, hot water and chilled water for a large CT inner city hospital
- Facility designed to meet current and future utility demands
- 6MW Solar Taurus 60 Gas Turbine
- 4.5MW Coppus-Murry HP/LP Steam Turbine Generator
- 45KPPH Nebraska HRSG
- 60KPPH Cleaver Brooks Boiler
- 1500 Ton Carrier Electric Chiller
- 80 Ton Carrier Electric Chiller

Challenges

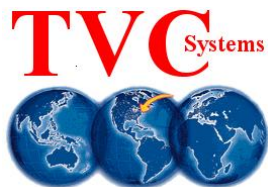
- Plant in operation 24/7/365
- Communication interfaces to CTG
- Fire Safety Interlocks



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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
- Field instrument calibration
- Operator training
- Remote access for support, monitoring & control
- Preventive maintenance & ongoing 24/7/365 support (as required)



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Solutions

- Designed, fabricated and delivered by TVC Systems
- Modicon Quantum and Momentum PLCs
- Intellution FIX32 nodes
- Hot Standby
- Numerous communications protocols including Ethernet, Modbus+, DH+

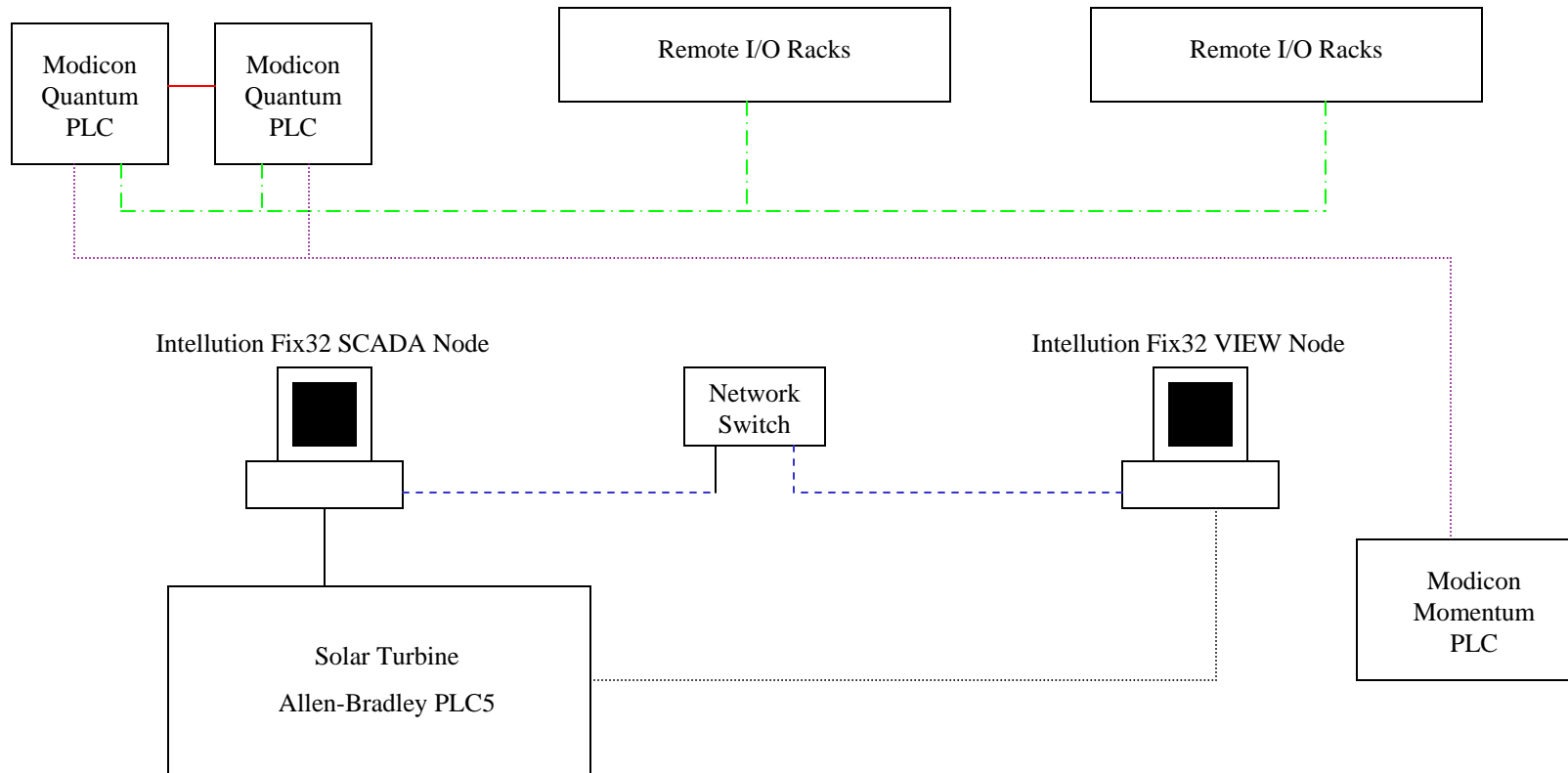
Results

- Provision of intuitive and centralized control system interface
- Process automation resulting in reduction in operating personnel
- Increase in overall plant efficiency
- DEP Reporting
- Reduction in system downtime
- Remote operation, monitoring and support



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System Architecture



<u>Legend</u>	
Hot Standby Cabling	—
Remote I/O	- - -
Ethernet	- - -
Modbus+
DH+

TVC Systems

