

HOSPITAL

PROJECT BENEFITS

- ▶ 30% reduction in boiler natural gas consumption
- ▶ Recovery and reuse of up to 90% of flue gas exhaust heat
- ▶ Economical in-house electrical power generation
- ▶ Significant reductions in greenhouse gases and other emissions



Reducing Hospital Energy Consumption with FLU-ACE® CoGen



Thermal Energy International (TEI) designed and implemented an integrated FLU-ACE® heat recovery system with CoGeneration (CoGen) unit for efficient electrical power generation and overall reduction in energy consumption.

The installation is comprised of a natural gas fueled engine with a 425 kW generator, waste heat boiler, and

FLU-ACE® waste heat recovery system, processing combined flue gas streams from existing steam boilers and the cogeneration unit.

The system was designed to recover 6.0 MMBTU/h of waste heat to be utilized for fresh air heating, dehumidification and boiler make up preheating of the “B-Wing” part of the facility.

The system provides 95% of the hospital’s heating requirement during the summer months replacing the existing summer boiler operation.

“The FLU-ACE® heat recovery and pollution control system has been very reliable with a minimum of maintenance. In the last five years, the electrical rates stabilized while the gas rates have been increasing every year making the installation of such a system even more interesting. If reducing energy consumption while also contributing to the limitation of harmful environmental emissions is part of your mandate, then the installation of a FLU-ACE® system should be considered.”

- Hospital’s Chief Operating Engineer