

HOSPITAL



BENEFITS

- ▶ 16% to 20% reduction in boiler fuel consumption
- ▶ Increase of the overall boiler efficiency to 96%
- ▶ Recovery and reuse of between 80% and 90% of waste heat
- ▶ 1,500 tons of greenhouse gas (CO₂) reduction annually

FLU-ACE® Boiler Plant Waste Heat Recovery Application

Thermal Energy International implemented a turnkey FLU-ACE® waste heat recovery system to recover energy from four boiler exhausts within the central power plant of the hospital. The FLU-ACE® system was designed to recover up to 5 MMBTU/h of what would otherwise be wasted energy previously exhausted to the atmosphere. The recovered energy is then recycled and used to heat a research center building adjacent to the hospital's boiler plant. The 22 ft high FLU-ACE® tower replaced the existing 140 ft chimney as the primary stack for the power plant.

The system was installed over 15 years ago and continues to effectively provide the hospital with significant energy and emission reductions. Recently the hospital underwent a major energy retrofit and renewal program as part of their on-going effort to keep operating costs under control. Modifications to the FLU-ACE® system were incorporated into this energy renewal program given the substantial amount of energy being recovered. Today, after more than a decade of use, the FLU-ACE® system is delivering an estimated \$250,000 in annual energy savings based on current fuel costs. In addition, the system is reducing CO₂ emissions by an estimated 1,500 metric tonnes per year, equivalent to permanently removing 350 cars from local roads.

“The FLU-ACE® system has been a reliable and trouble-free solution that has consistently delivered substantial energy and emission reductions for more than 15 years”

- Director of Engineering & Operations

