

# THE OTTAWA CIVIC HOSPITAL

Ottawa, Ontario, Canada



## BENEFITS

- ▶ 16% to 20% reduction in boiler fuel consumption
- ▶ Increased boiler plant thermal efficiency from 80% to 96%
- ▶ Recovery and reuse of between 80% and 90% of waste heat
- ▶ 1,500 tons of greenhouse gas (CO<sub>2</sub>) reduction annually

## FLU-ACE® Boiler Plant Waste Heat Recovery

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 Ottawa Hospital. The FLU-ACE® system was designed to recover up to 5 MMBtu/h of wasted energy previously exhausted to the atmosphere. The recovered energy is recycled and used to heat the University of Ottawa Heart Institute 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. In addition, the system is reducing CO<sub>2</sub> emissions by an estimated 1,500 tons 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"* – R. Brock Marshall P. Eng, Director of Engineering & Operations, The Ottawa Hospital.

