

Food & Beverage



BENEFITS

- ▶ 33,000 MMBtu/year waste heat recovered
- ▶ 10% reduction in gas consumption annually
- ▶ \$500,000 in fuel savings annually
- ▶ Heating of process water & boiler make up water
- ▶ Over 2,000 tons/year of greenhouse gas reduction

FLU-ACE® Boiler Exhaust Heat Recovery Tower

Thermal Energy International (TEI) implemented a FLU-ACE® Condensing Heat Recovery System on the plant's boiler exhaust. The system was designed to recover up to 5 MMBtu/h of waste heat energy that would otherwise be exhausted to the atmosphere. The recovered heat, in the form of water at 60°C, is used to heat and preheat:

- Boiler plant make up water
- Plant hot water (CIP & wash water)

The project delivers significant annual energy cost savings of over \$500,000 and a fuel use reduction of up to 25%. In addition it provides the benefits of:

- Increase of the overall efficiency of the boilers to 96%
- Proportional reduction (over 10%) in all combustion related emissions and greenhouse gases
- Reduction of particulate and acid gas emissions
- Recovery of 80 to 90% of the waste heat



Implemented on a turn-key basis, the project was completed on budget and on schedule, with a verified payback under 2 years.