

MINAS BASIN PULP & POWER COMPANY LTD

Nova Scotia, Canada



Benefits

- In excess of 84,000 GJ/year of waste heat recovered
- Greenhouse Gas Reductions (CO₂) of 8,350 tonnes/year
- Reduction in Nitrogen Oxides (NO_x) by 16 tonnes/year
- Elimination of 92 tonnes/year of Sulphur Dioxide (SO₂)
- £650,000 in fuel savings per year

FLU-ACE Condensing Heat Recovery from Paper Dryer Exhausts

Thermal Energy International (TEI) implemented a FLU-ACE Condensing Heat Recovery System on the paper machine pocket ventilation system exhaust at the Minas Mill in Hantsport, Nova Scotia. It is a second stage of heat recovery – the first stage is an air to air preheater. The system was designed to recover up to 21 GJ/hour of waste heat energy that would otherwise be exhausted to the atmosphere. The “free energy” from the exhaust is used to heat and preheat:

- Boiler plant make up
- Deckle showers
- Chemistry water
- Vacuum sump
- Outside air make up

The project delivers significant annual energy cost savings of over £650,000 and a fuel use reduction of over 20 %. In addition it provides the benefits of water conservation (condensed water is returned to the process) and end of pipe particulate matter control.



The project was implemented on a turn-key basis and was completed on budget and on schedule, with the system going into commercial operation in 2006.

“Recovering every bit of waste heat was not important years ago, it is now ...” Scott Travers, President and COO, Minas Basin Pulp and Power Company Ltd.

Recognized by Pulp and Paper Technical Association of Canada (PAPTAC) in 2006, the project was presented with their Energy Conservation Award as one of the best examples of energy conservation opportunities applied in Canada.