

# **100,000 pph Hog Fuel Boiler Plant for Sale**

## **A. Overview**

For sale is a complete 4.0 MW Biomass Facility, described below, and associated equipment. The Biomass Facility is located in Vermont.

## **B. The Biomass Facility**

The Biomass Facility is located adjacent to a Vermont Paper Mill which was shut down in 2007. It consists of a wood boiler, a fuel supply system, an ash system, a water treatment system, a 4.0 MW steam turbine generator and various associated auxiliary support equipment.

The Zurn fixed-grate wood boiler was field erected in 1980 and is rated at 100,000 PPH at 650 PSI/725 degree SH. The boiler is a bottom supported boiler and is made to mount on a flat concrete base slab. The boiler has a air heater system for the under grate air and a improved over fire air system, soot blowers and grate cleaning blowers.

The boiler is feed by 3 ceramic lined screw feed fuel hoppers, variable speed, cross over conveyor and fuel cyclone which is connected to a Radar blower feed system. The boiler and fuel feed system were made to run hog fuel and saw dust. The fuel feed system sets in front of the boiler and feeds a spreader stoker. This equipment is mounted on its on structure steel frame and is also made to be mounted on a flat concrete slab.

The boiler is followed by a U.O.P. multi-cyclone dust collector and FD Fan. This equipment is mounted on its on structure steel and also made to be mounted on a flat concrete slab. After exiting the U.O.P. dust collector, gases are conveyed by a variable speed induced draft fan through a metal duct to a 220 ft. brick chimney (not part of this sale).

The bailey combustion control system was upgraded in 2006. Air monitoring equipment was installed to record the stack emissions as part of NOx RAC. A formal continuous emission monitoring/reporting system has been in operation since then.

The ash system includes the ash silo, ash conditioner and storage bin. The silo holds one days' worth of hot fly ash. The ash conditioner uses water and a rotating drum to quench the hot ash. The bin holds about 4 to 5 days worth of ash.

There are two high-pressure boiler feed water pumps; one variable speed electric and the other steam driven. They each can supply water to the hogged fuel boiler. Two low pressure feed water pumps can supply the oil boilers. The feed water system installed in 1982 consists of Glegg demineralizers, sandftlters, a 50 PSI deaerator operated at 12 PSI and a stainless steel condensate receiver storage tank. .

The 1946 4.0 MW General Electric steam turbine (the "Steam Turbine") was installed in 1982. Prior to its operations at the Biomass Facility it was

in operation at the Lincoln Pulp and Paper Company from 1961-1976. The Steam Turbine is rated at 100,000 PPH at 600 PSI, 750 degrees Fahrenheit and extracts 140 PSI and 45 PSI exhaust. The GE generator is rated at 4.0 MW at 0.8 PF, 3600 RPM, and 13.8 KV A. This turbine may be sold separately.

Set out below is a summary of the operating history of the Biomass Facility a 2 year period:

-----\_~. -----"-----\_... ---- "' -- ---\_ . ----

Cogenerated power (kWh) 22,222,000; 21,364,000;

Steam generated (mmbtu) 849,434; 802,952

Bone dry hog fuel used (tons) 71,397; 59,680

This boiler has no oil firing and has run a single paper machine paper mill very nicely. The boiler has an excellent, turn down and recovery rate.

#### C. Misc Equipment

Some MCC power distribution gear.

Spare parts

Radar fuel feed to the boiler house

The structural steel building around the boiler

Control systems

Ash systems.

D. Price---The owner is trying to determine the market value of this equipment as this has just been released to sell. And is willing negotiate.