

### **Laidlaw Energy Group DG/CHP Demonstration Project**

Laidlaw Energy plans to install a wood fired CHP system to generate a total of 1.2 MW for export to Niagara Mohawk. Thermal energy will be recovered on-site kiln drying operations.

Since 1991 the Laidlaw Energy Group (LLEG) host facility in Ellicottville (the "Facility") has operated a natural gas combined cycle (combustion turbine heat recovery boiler / steam turbine), co-generation system, exporting approximately 3.5 MW to the grid. Electricity has been sold to Niagara Mohawk pursuant to a long term power purchase agreement (6 cents/kWh) that remains in place through 2021. In addition to producing power, the Facility also comprises a lumber division, known as Quality Lumber Services, that uses the thermal energy from the power plant to custom kiln dry lumber for numerous local sawmills, concentration yards and direct end users, such as furniture manufacturers. The Quality Lumber Services division utilizes a 400,000 board foot "pre-drier" and 650,000 board feet of dry kiln capacity, along with related stacking and transportation equipment and substantial storage capacity in order to process over 1 million board feet of hardwood lumber per month. Quality Lumber Services has historically contributed over a third of the Facility's total revenue and operating income, thus making it integral to the profitability of the business. In August of 2002 the facility was shut down because it could no longer operate profitably due to escalating natural gas prices.

The proposed project will repower the existing facility to operate on "clean" wood waste rather than natural gas. The businesses in the Buffalo area generate pallets that are used to store, ship, receive, and transport products. Many of these pallets end up in landfills or as a waste byproduct from remanufacturing. LLEG has negotiated a long-term agreement with Cousineau Forest Products ("CFP") to provide ground wood pallets to the Facility. The fuel (ground wood pallets to be supplied for \$15/ton) will be combusted in a wood fired boiler. Electricity will be generated via an existing 1.8 MWe condensing steam turbine. The existing water cooled condenser will be replaced with an air cooled unit. The heated air passing over the air cooled condenser will be directed into the pre-drier to condition the hardwood lumber for sub-kiln-drying. Existing facility electric loads are 600 kWe, leaving a total export potential of 1.2 MWe.

<b>Funding</b>	<b>Encumb to Date</b>	<b>Pending</b>	<b>Total Anticipated</b>
Laidlaw Energy Group Inc.	\$1,832,550.00	\$0.00	\$1,832,550.00
NYSERDA	\$1,000,000.00	\$0.00	\$1,000,000.00
<b>TOTALS</b>	<b>\$2,832,550.00</b>	<b>\$0.00</b>	<b>\$2,832,550.00</b>

**Manager** Torpey, Mark R.  
**Contracts** STD-8574  
**Contractors** Laidlaw Energy Group Inc.  
**Cities** Ellicottville  
**Counties** Cattaraugus