<u>News</u>Review

BY MARILYN LEDOUX

CLAREMONT, NH – The first Bio-Mass Co-Gen engine has arrived. The engine was rescued by a group of people representing engineering foundations, organizations, manufactures, private donors, historians, educators, reusable energy advocates and industrial preservationists, interested in the engine's preservation program.

The engine will be used as the First Bio-Mass Co-gen Demonstration Educational Site and

Community Reusable Incubator Facility in the North East, maybe in the entire U.S.A.

A major focus of the long-term program is to increase local small bio-mass co-gen systems in our rural community economies. These small co-gen systems will partner/collaborate with other energy users to efficiently utilize the secondary heat. This will drastically reduce the partners overall foreign oil dependence and increase and stimulate local green energy dollars.

The engine is a Skinner Universal Uniflow direct copulated 350 kilowatt – tens of millions of high quality hardwood lumber from each of the northern New England States, N.H., VT. and Maine. All the wood scraps from the manufacturing of wood furniture were burned in the boilers to provide steam for the co-gen steam engine.

The move to obtain the engine was a project of Northern Heritage Mills: a registered non-profit educational organization, with the help of several of the most talented Skinner Steam Co-gen Engine engineers in the United States who

came together_to help save this advanced American engineered steam technology.

Gerry DeMuro, board chair of Northern Heritage Mills, South Acworth, NH, Master Steam Engine Rigging and Mechanical Engineering, Rick Rollands, Youngstown, Ohio; Technical Skinner Engine Expert Mechanical Engineer, Carl Blelenber, Orford, NH; Master Skinner Uniflow Engine Operating engineer, and Wayne Griffin, Pittsburg, NH were instrumental in obtaining

"The engine will be Northern Heritage Mills Core Energy component and prime example how local communities can reduce foreign oil dollar dependence, reduce taxes and increase green jobs and rural community wealth."

400 horsepower engine and was built in Erie, Pa. in 1921 for a firm in Gardner, Mass. The former Nichols and Stone Furniture mill (inventors of the Windsor Chair) used the engine to make the electric to power the machinery and the secondary steam to heat all the mill buildings, run the kiln dryers, furniture dryers, steam bending machines and all the mechanical pumping stations.

Over the engine service life at Nichols and Stone, the engine provided power to process many and bringing the engine to New Hampshire. Other preservation team members were from Etna, Hanover, Cornish, Acworth, Claremont, and Keene, NH, and Windsor and Bellows Falls, VT.

The engine was destined to be smashed by a 3000-pound wreaking ball, and sent to China to be melted down and made into a disposal item and most probably returned to America.

The rescue program took two years to assemble the team, raise the funds, and move the engine. Historic Steam Engine Rescued And Hauled From MA To NH Project Has Educational Value, Stimulates Local Green Energy Dollars



FUNDS WERE EXTREMELY TIGHT in the restoration of a 1920s biomass co-gen engine, so Doug Hamshaw of Hamshaw Lumber, Inc. stepped in to donate transportation of the historic engine from Gardner, MA to Claremont.

By Lori Catozzi

The massive undertaking of moving an historic biomass co-gen engine from Gardner, MA to Claremont took two years of planning, as well as a lot of help from collaborators. The project was part of the rescue efforts of engineers, educators from colleges and universities, useable energy advocates, and preservationists. What was once going to be scrapped and then melted down has now become a major educational and green energy component for the Northeast.

Dating back to 1921, this Skinner Universal Uniflow direct copultated 350 kilowatt-400 horsepower engine was used to make the electricity to power the machinery and the steam used in the process of heating and drying at the Nichols and Stone Furniture Mill (the same company who invented the Windsor Chair).

Northern Heritage Mills – a nonprofit, educational organization – spearheaded this project, incorporating the help from engineers of Skinner Steam Co-gen Engine. Gerry DeMuro, board chair of Northern Heritage Mills in South Activorth who has been at the forefront of this project, is excited about the educational aspects of the

engine, as well as the future increase of "green" jobs.

The engine will be used in the first biomass co-gen educationl program and as a community reusable incubator facility. The long-term idea is to reduce overall foreign oil dependency as well as increase and stimulate local green energy dollars by partnering with other energy users to effectively harness secondary heat.

There were a lot of steps in the long process leading up to "move day," including obtaining tax-deductible donations toward this project to actually make it happen. The costs of insurance, rental tools, moving, and specialized engineers to disassemble the engine were all met with funds from various community members, businesses, and organizations.

"Doug Hamshaw and his team loaded, transported, and unloaded all of the renewable energy co-gen engine parts... six tons!," says DeMuro. "The first truck could not fit the parts because of overloading, and our transportation budget was empty. Doug donated his transportation services to ensure that all the important engine parts were preserved. We are very thankful to Hamshaw Lumber, Inc."

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