SKCS Board Hears Feasibilty Of Using Biomass Heat

By Rosie Cunningham
Mountain Eagle Staff

SOUTH KORTRIGHT - South Kortright Central School is considered to be "a good candidate" for a biomass energy system according to biomass supply comparison charts. At the May 18 of the SKCS Board of Education, Jeff Forward, a wood energy specialist from Vermont and Collin Miller, a wood products utilization and marketing specialist, presented results of a biomass heating analysis at the school.

The study examined potential for converting the school's primary heat load to locally produced biomass energy in the form of green wood chips. The school district is one of three in the region that received full funding for the feasibility study through the Watershed Agricultural Council's Forestry Program.

Forward said facilities that should consider wood burning for heat include those with high heating bills, steam or hot water heating distribution systems and ready access to reasonably priced biomass fuel. He added that currently, more than 35 schools in Vermont are heated with renewable biomass at an average cost savings of 53 percent over conventional heating fuels and a total reduction of 12,382 tons of carbon dioxide emissions.

"It's a sustainable, renewable fuel than can be a cost effective waste management strategy," he said.

Forward said using wood chips for fuel, can benefit the forests as well as the local economy.

"If you create a market for low value wood, you can make a healthier forest. The fuel will come from timber harvest that will be cut down anyway (such as crooked ones). By working with local loggers and saw mills, it would ensure that dollars are spent locally," he said.

According to Forward, wood chips are more stable in price than fossil fuels and it is a great green house gas reduc-

See SKCS on Page A7

Photo By Rosie Cunningham

Jeff Forward, Collin Miller and Matthew Kent discussed biomass energy systems and if it would be feasible to use for heat over the use of fuel, at South Kortright Central School. The men determined that South Kortright was a "good candidate" for the system at the school's board of education meeting on May 18.

SKCS

Continued from Page A1

bon is sequestered below the earth.

"By using it to heat, you are reducing the amount of fossil fuels you are using and it is Co2 (carbon dioxide) neutral," he said.

South Kortright will spend $125,000 for heating next year according to Forward who said i a helpful feature is the school has three boilers in good repair.

The availability of wood is not a problem and some residents in attendance at the meeting said they were concerned about the amount of wood that would be used to sustain the school's heating system. Forward said only 3.1 percent of trees in the Catskills are being harvested. The wood chips are looking to use are uniform in size and shape and the preference would be a green, hardwood chip with plenty of moisture.

A complete biomass energy system would include biomass fuel storage, preparation, conveying and combustion. It uses hot water or steam for production and distribution, electric power generation and distribution and all related integrated control systems. The best boiler that can be used is direct burn combustion and another preferred system is a two chamber combustion.

In heating a facility, chips are heated and air added through a nozzle that goes into the boiler combustion that has a temperature of about 1,800 degrees. Forward said the chips should be unloaded from the bottom so the older ones are burned first. According to the specialist, the process is "designed to burn cleanly." The wood combustion systems are not like outdoor boilers and have pollution control devices.

The stoves themselves do not need a lot of maintenance and there is not an overabundance of ash produced. He said that the only real maintenance required is checking he motors regularly and keeping the boiler tubes cleaned often.

There are many savings that come along with the use of the fuel system versus the wood system.

"Wood prices have remained stable compared to fossil fuels and is approximately one-third of the price compared to fuel oil," Forward said. "I averaged a 20 year period and determined that oil inflated 7.5 percent a year."

SKCS could receive 70 percent state aid assistance for a capital cost that totals $1,730,391. Other costs Forward advised the BOE to consider are replacement costs for bus garage boiler and that while the school is working on their approved parking lot project, the required pipes for the biomass system should installed under the parking lot (about two feet deep).

Matthew Kent, owner of Leatherstocking Timber Product in Oneonta, identified himself to the board and commended Forward and Miller on their presentation. He said his company would like to work with the school on the project by supplying the wood.

"The future of our company is going in this direction," Kent said. "And it also puts money back into the local economy."

He reiterated that wood emissions are much less when compared to oil and to let dead or dying timber to rot is actually worse for the environment. A ton of chips, he said, is comparable to nearly 60 gallons of fuel oil.

The BOE was receptive to Kent, having used his business for the wood chips on the school playground.

The next step for the project is for the BOE to tour biomass heated facilities. After that, construction estimates will be gathered for the site where the system will be established and wood suppliers identified. Forward said a comprehensive school energy initiative should be considered and New York State Energy Research and Development Authority (NYSERDA) recommendations implemented.