Natural gas boiler for courthouse

By Amy Smith, Union staff writer | Posted: Thursday, August 7, 2014 9:26 am

JEFFERSON — Infrastructure Committee members on Wednesday nixed the idea of replacing the Jefferson County Courthouse's heating system with biomass-burning boilers.

After comparing the cost to a traditional natural gas-burning boiler, the Jefferson County Board of Supervisors committee decided that the traditional method would be the most cost-effective measure for the county.

The cost of the two biomass-burning boilers was estimated at $448,000 plus an additional $160,000 for installation, according to Jefferson County Administrator Ben Wehmeier. He said the two traditional natural gas-burning boilers would cost the county about $167,500, including installation fees and a new water heater.

In addition to the significantly larger overall cost, the biomass boilers possibly could require the installation of a sprinkler system because the county would be storing flammable materials near the boiler to fuel it, Wehmeier added.

He said the county would need to spend another $46,000 for bins to store the biomass fuel and find a storage area for the biomass material.

On top of the added costs of installing the biomass system, the time to receive bids and install the boilers could take anywhere from five to six months; natural gas boilers could be installed and functional by September or October, the county administrator added.

Wehmeier also noted that the labor costs associated with both heating options do not include asbestos removal, which might become an issue as the current equipment in the courthouse is more than 50 years old.

The county currently is budgeted for the natural gas option because the equipment the courthouse currently has in place is outdated and badly in need of replacement.

The idea of heating the courthouse with biomass was brought to the county board in July by a small group of county supervisors.

Supervisors Walt Christensen, Greg David and Mike Kelly recently created a team for the Climate Quest Challenge, a contest sponsored by University of Wisconsin-Madison institutions that will award grant money for creative ideas that mitigate climate change.

Their idea is to convert Jefferson County governmental buildings to utilize biomass energy, which can be grown locally and harvested sustainably for long-term benefit.

The board voted at the July 9 meeting to support the team in the contest by lending its project an extra air of credibility, showing that the county would support the project were it funded.

The trio's proposal was selected as one of 24 of the 85 initial proposals to move forward into the second round of the competition.

The next review and selection for the final round of the competition occurs in September, and the final projects to receive funding will be chosen in December 2014.

If selected as one of the winners in December, the county could receive significant grant awards to put the plan into action.

Though one way to put the plan to action was through heating the courthouse, David agreed with the committee Wednesday that at this time, biomass might not be the right option for that building.

“Personally, I would not recommend this for the courthouse, having these figures in front of me,” David said.

“Although I am real hesitant to go with natural gas because I do not believe the price of natural gas is going to stay at this price very much longer, and then we will see a large price increase in that.

“But it’s difficult to justify the costs (of the biomass option),” he added.

David also noted that although this route might not work, he hopes the county can find another way to integrate biomass technology into its buildings.

“The courthouse is a real challenge and confined area, but it brings to light a lot of good information to use in the future,” he added.

Biomass is plant material that is harvested for fuel and burned to create energy to heat or cool buildings.

The supervisors would like to plant and harvest the materials locally on public and private lands, and use the energy to heat and cool the county’s campus.