



Warner Board of Selectmen

Meeting Minutes
Monday, April 14, 2014
APPROVED

Chairman Hartman opened the meeting at 6:14 p.m.

In Attendance: Selectman David E. Hartman – Chairman, Clyde Carson – Selectman, Allan N. Brown – Selectman, and Jim Bingham – Town Administrator

Others present:

Andrew Mack – Presenter of the analysis and senior student at University of New Hampshire

Kieth McBrien - From GDS Associates in Manchester, NH (sponsoring Andrew)

Sue Hemingway – Energy Committee

Peter Ladd – Energy Committee/Fire Department

Darren Blood – Energy Committee

Ed Raymond – Fire Chief

John Leavitt – Budget Committee

1. Energy Efficiency Report on the Proposed New Fire Station

- A. Kieth McBrien from GDS Associates in Manchester, NH is sponsoring a UNH student, Andrew Mack, who is majoring in mechanical engineering. Andrew is to present before the Selectmen a report on a wood pellet furnace system, a formal report will be sent in a PDF format by the end of next week. Andrew said the project scope was to calculate the theoretical load of the new fire station and appropriately size a wood pellet furnace system. Andrew used Equest software and the building schematics to calculate the size of furnace that would be needed.
- B. Wood chips were not a consideration because the building is too small to be cost effective and the system requires more maintenance than a wood pellet furnace.
- C. An above ground silo would be needed to store the pellets. Typical yearly maintenance of the furnace runs about 6 hours a year. In the report a propane backup heating system is also included which is highly recommended, it is a smaller system and will keep the radiant heat in the floor from freezing. The backup system would be placed in the designed boiler room inside the building.
- D. Other modifications to the site are recommended if biomass is chosen such as:
- Laying the return and output piping from the wood pellet boiler room (separate structure) into the fire station.
 - Power access to the boiler room situated outside the station.
 - Outside storage for the pellets.
- E. Andrew explained when the ash is being cleaned from the pellet furnace, the system must be off and cooled. It is recommended to empty the ash after every 10 tons of fuel has been burned, the estimated amount of pellets that would be used for a heating season is 26 tons so the ash would need to be emptied 2.6 times a year; the silo can hold up to 28 tons.
- F. Bulk suppliers are located in Massachusetts, Vermont and Maine. Wood pellet furnaces must burn premium or higher pellets. Poorer quality (high moisture content) will result in more maintenance.
- G. The yearly pellet cost is estimated to be \$6,500. Andrew explained the pellet system would pay for itself within 10 years showing a \$71,000 savings compared to an oil burning furnace. Warranties for the wood pellet furnace is 20 years on pressure vessel with a first year parts replacement guarantee.

- H. The cost for the pellet furnace, external structures, silo and back-up propane system is about \$100K (\$89,000 for just the pellet system).
- I. Andrew said the current design of the building shows it has the minimum legally required energy efficient material. Andrew said he would also submit data on the impact of upgrading the energy efficiency.
- J. The Town Administrator asked about the history regarding the reliability of a wood pellet furnace. These systems are predominantly in Europe, if there is a twenty year history then the warranty would make sense. The Town's experience has shown that oil burners that have a 15 year life last about 12 years. Andrew said there is about a 10 year history in this country.
- K. Free training is provided for maintaining the wood pellet furnace.
- L. It was explained that the fire station is eligible for the Municipal Energy Reduction Fund, it's a State loan with a \$5,000 minimum up to \$400,000, 3 – 7 year loan with an interest rate of 2.5 to 4%. Another option is the Industrial Renewable Energy Grant, also provided by the State of NH; the minimum grant amount is \$100K available through the Public Utilities Company.

2. Adjournment

A motion was made to adjourn at 7:25 p.m.

Board of Selectmen

David E. Hartman – Chairman

Clyde Carson

Allan N. Brown

Respectfully submitted,
Mary Whalen
Recording secretary