

TOWN OF ENFIELD ENERGY COMMITTEE MINUTES

DATE/TIME: June 25, 2008 5:00 PM

LOCATION: Whitney Hall Conference Room, 23 Main Street, Enfield NH

I. CALL TO ORDER: The meeting was called to order at 5:10 P.M.

ATTENDANCE:

Present: Steve Goldsmith, Meredith Smith, Wendell Smith, Richard Lammert, Carol Lammert.

Administrative Staff: Alisa Bonnette. Special Guest: Kurt Gotthardt, concerned citizen.

Absent: John Burritt and Charles DePuy

II. APPROVAL OF MINUTES: Minutes of the May 27, 2008 meeting were approved as amended via the Internet.

III. OLD BUSINESS:

Update of Goals and Objectives: A brief discussion was held about what we want to accomplish as a Committee. This is an ongoing process of prioritizing tasks.

Update on other localities with reports from meetings/events and upcoming activities
Wendell reported that he attended to Lyme Geothermal conference. 85 people attended. He reported that there is a 1 and ½ year old functional geothermal heating system installed in a private residence in the vicinity on Methodist Hill Road. The installation cost was about \$40,000. He noted that there are capable suppliers and installers in the area. It was suggested that contact be made with the Enfield Library contractor to consider use of alternative energy sources such as geothermal heat and solar power and hot water. Wendell will pursue contact with the architect.

Steve provided information for everyone on SolarFest 2008 July 11 - 13. He strongly encouraged everyone to attend.

Progress Report on Town Energy Audit/ Baseline consumption and impact/ Emissions Data
Charlie has been entering in energy consumption data using the EPA online tools. This appears to be an effective way to get a baseline of our Energy consumption, and get comparisons with other communities consumption. There is still much work to be done in this area, and in Charlie's absence, discussion of this was limited.

Street lights location, function and need

Rich reported that the price for a program from National Grid to identify placement of street lights would be \$18,000, according to K. Daniels. The committee did not express any interest in pursuing purchase of this program due to the cost.

Alisa offered information from a web site, www.wmur.com on Jaffery, New Hampshire who is in the process of reducing the number of streetlights in their town. The number of streetlights in their town is comparable to what we have in Enfield. The methods used by the Jaffery Energy Committee involved taking late night tours of the town to collect information on necessary lighting at intersections and crosswalks. The Jaffery committee found that money would be saved by removal of 61 of their 225 streetlights and installation of lower wattage bulbs in those remaining. The Jaffery committee will consult with other towns for information on lower wattage. They are looking for the balance between saving money and energy and keeping the

town lit. Alisa will contact Jaffery for more detailed information on their approach to see if we can apply it to our committee. Reference was made to Thetford, Vermont, a town that has had street lights turned off for two years.

Rich promoted contacting other towns in New Hampshire that have implemented cost and energy savings by reduction in lighting to learn their methods in reaching success. Members shared knowledge that Peterborough, N. H., has a Street Light Committee and that Newmarket, N. H., has a town site plan review. (Since our meeting, Franklin New Hampshire has started a street light reduction program). There was a general feeling that talking with other communities in New Hampshire would benefit us as we start investigating the possibility of reducing streetlights in Enfield.

Kurt Gotthardt referred to two 2002 packets obtained through a web search that provided information from New York State one on Guides on Street Lights and the other on Energy Efficiency of Street Lighting. He will provide the web site information.

The committee discussed the best method of approach to either eliminate all or some street lighting, or change all versus some to low energy bulbs. It was thought that presentation of savings in tax dollars to the community is the best approach. Data from 11 months in 2007 (June data was unavailable) shows that nearly one third of the town's electric costs are attributable to street lights. (11 month costs from 2007 show total Town electric bill was \$76,497 of which \$23,170 was street lighting). The committee feels that cost in lighting is a major area to study.

A plan will be devised to include steps such as gathering information from other towns, getting input on safety issues in the town, setting a target for total energy reduction, educating the public on costs and energy savings (possibly via mail directly to individuals in the immediate area under consideration) and obtaining written preferences from citizens immediately affected by any recommended changes. The committee briefly discussed safety issues. It was suggested that the committee definitely confer with Police Chief Crate on safety concerns for vehicular traffic and pedestrians, personal safety of residents and security of property when developing the plan.

The fee for outdoor lighting is at a fixed rate, even if the light is nonfunctional. There is not a metered fee for the power used per light. It is not known if National Grid does routine surveillance to locate lights in need of repair. It is unknown if there is a service fee from National Grid to turn a light off. If lights were turned off on a trial basis there may also be a fee for turning the light on again. This information would need to be included in a cost analysis. It was suggested that one method of permanently turning a light off may be to not have the bulb replaced when it does go out. (However, bulb life may be lengthy.) Currently, a light that goes out may not be replaced unless requested by an individual. The committee may devise a plan for phasing out lights.

Prior to any committee action on lighting beyond gathering information and determining the most effective cost containment recommendations the committee will be take the information collected to the Select Board. It was suggested that presentation of information and recommendations be scheduled for one board meeting with any decision held until the next meeting to provide the board members sufficient time to study the recommendations.

Steve presented preliminary information that he had gathered on light levels, in candle foot ratings, from various light fixtures in the center of town. His method of testing involved

sampling at near midnight with the use of a light meter placed directly under the light from the roof of a car (meter was placed through the sunroof). When it was not possible to be directly under the fixture the datum was collected at a distance of approximately a ten foot radius from the base of the light. He found there was a wide variance in candle foot ratings independent of the type of bulb. Summary of that data follows:

Location Foot Candle
Shaker Bridge 0.6
Lower Bridge 1.1
MSB Parking Lot 3.2
Police Department 0.2
Road by MSB 0.1
Road by Police Department 0.6
High Street @ Main 0.5
Bridge by Copeland Block 0.3
Copeland Block 0.5
Main Street by Georges 0.1
Church by Rail Trail 1.2
Main @ Oak 1.1
Vet Memorial Park Entrance (school side) 0.5
Vet Memorial Park Center 2.6
Vet Memorial Park Exit (High Street side) 1.4
Enfield Village School 0.9
Whitney Hall Conference Room 57.2
Outside Full Sunlight 4,000
Steve's Living room at midnight 2.5 - 5.0

Rich provided information on types of light bulbs, rated in lumen, from the National Grid web site. He noted that changing from mercury vapor to high pressure sodium bulbs would provide an energy cost savings, however, the initial installation would be costly. High pressure sodium bulbs can be identified by a yellow hue while mercury vapor bulbs have a bluish glow. There may be an individual preference in light "color".

Kurt Gottardt presented a volume of information that he has collected over time about streetlight placement in Enfield. He stated that a couple of years ago, in his returns home in the dark of night, he noted that more flood lights were being installed in the Lebanon area and then in Enfield. His study began by questioning the purpose of the lighting. He provided his collection of data that includes street location, the National Grid route number, pole number and styles of glass covering (either globe or cut off). Kurt reported while there are opinions that lights are placed by potentially hazardous traffic features such as intersections, crests of hills or turns in the road this has not been consistently supported by touring the areas. He noted that there is a wide variance in placement of light fixtures. Some areas have lights every 150 feet. Other areas have large unlit spans.

Kurt's data also shows that there are several flood lights in use in the town. The committee questioned who pays for the flood lighting. It is unknown if flood lights are private property. Specifically a question was asked about flood lighting of a town garage. Its content was unknown to committee members though it was speculated that it may hold sand and/or road salt. Kurt shared that there is a National Grid Fact Sheet on the web site on street lighting. There are

restrictions on flood light trespass, meaning that there are restrictions on light shining onto a neighbors property, but the feeling was that the municipality itself may be exempt from this.

The method of determination of light placement was questioned. As well, ownership of lights was questioned. Identifying features on the light pole do not reveal if the light is public or private. It was speculated that a light may initially be funded by an individual and eventually the energy cost is relegated to the town. It was suggested that National Grid be contacted to ascertain ownership. Alisa will contact National Grid for this information. As well, Alisa will contact National Grid to find information on what lights (by pole number) have electrical fees being charged to the town.

Reference was made to the town's lighting ordinance. One was cited as a part of the zoning section. This includes statement than any one's lighting can not shine on an abutter's property. As well, there is a statement that commercial light needs to shine downward. The committee needs to reference the 2007 Town meeting minutes, on line, to verify the exact wording of a lighting ordinance. Re: the 2008 Planning board there is a site plan review for Commercial lighting. It was noted that the town is exempt but does work to comply. All committee members agreed that any committee recommendations must be consistent with the town rules.

Energy reduction targets EPA Community Energy Challenge
Information provided by Charlie DePuy, on line, provides a good base line tool. It compares favorably to energy audits used in other locations. There is still work to be done on the tool.

Steve reported that the EPA Challenge is 10% reduction in energy usage measured in Kilowatt for electricity and gallons for both propane and fuel oil. The interpretation of cost savings with a 10% reduction, according to the 2007 11-month consumption and expenditure data, would be:

10% Heating Oil Savings translates to: \$2,662
1,182 gallons
13.2 tons of Co2

10% Propane Savings translates to: \$673
303 gallons
1.97 tons of Co2

10% Electric Savings translates to: \$7,648

Increased fuel costs in the future would skew these calculations.

Wendell moved that the committee adopt a goal of 10% reduction in total energy consumption by the Town by the end of 2009, with incremental decreases thereafter toward an ultimate goal of 25% reduction in total energy consumption by the Town relative to the 2007 baseline data by the end of fiscal year 2012. The motion was seconded by Meredith. The committee was in unanimous agreement. This recommendation will become part of the Committees recommendations to the Select Board, and specific reductions in energy consumption will be provided to the Board.

Visibility/public education opportunities

Farmers' Market

Meredith will offer an information booth at the September 3, 2008 market. Plans were tabled until the July meeting for providing assistance, equipment (10 x 10 EZ Up tent table, chairs), possibly coupons or actual CFL bulbs, information packets, pamphlets from NH Saves or National Grid, lists of local suppliers/installers of alternative energy equipment, etc.

Library Not discussed

Energy Fair and Tour August '09

Consideration of was given to including the geothermal home as an option for a tour of local alternative energy homes.

Recycling

Meredith spoke to her concern for increased hauling cost/energy use if the single stream system for refuse were used with the inclusion of glass items. She presented that the current method of grinding glass on sight at the transfer station for use in road pavement is more efficient compared to transporting it elsewhere. Steve spoke to the desire for recycling of more varied plastics. Currently items coded as 1, 2 and 7 are accepted.

There was discussion on disposal of commercial cardboard. Installers/companies may be responsible for paying their own tipping fees elsewhere.

Wendell noted that keeping recycling in the fore is desirable as energy usage (hauling) is within the scope of the committee's work.

Other

Alisa shared information on free energy audits offered by National Grid. New Hampshire Saves was noted as a resource for energy efficient appliances, fixtures, bulbs and possibly programmable thermostats. etc. It is unknown if these services and reduced cost items are available to municipalities.

IV. New Business

Report to Select Board

The committee agreed that it would be appropriate to inform the Select Board of the committee's work. At the next Energy Committee meeting content for presentation will be discussed. The Committee will provide a status report, our recommendation of 10% reduction by 2009 and 25% reduction by 2012, as well as specific recommendations on how to achieve these goals. Wendell offered that providing the cost analysis of expenses of modifications be included with our report.

No Idling Ordinance

There are areas in New Hampshire that have ordinances prohibiting vehicular idling. The state does offer signs free of charge. The committee was in favor of suggesting this policy to the Select Board. The extent of coverage was considered. Base line data on fuel consumption by the Public Works Department and the municipal services from the fiscal years of 2006 and 2007 are needed. It is recognized that weather conditions are a considerable variant, thus 2 years data was considered appropriate. Steve will obtain data on amounts of fuel used, and possibly

mileage by vehicle or department. The potential decrease in fuel use presented in volume rather than cost may be a better indicator of savings considering the ever growing increase in the cost of fuel.

The committee is in favor of suggesting adoption of a no idling policy on municipal property such as the transfer station, municipal parking lots, etc. As well, it was mentioned that the committee does need to determine and include when there exceptions to the rule, like when an emergency vehicle is in service on an emergency call. The 8 cylinder engine in the Police vehicles was questioned as a possible inefficiency worth reviewing. Consideration was given to the undesirability of high speed chases as well as the proximity of the town to the Interstate. It was noted that First Student ,which currently has the school busing contract, does have a no idling policy; however, it was noted that this may be practiced inconsistently.

Wendell motioned that the committee strongly recommends to the select Board a no idling policy be instituted for town owned vehicles, when not offering emergent services, and for all vehicles parked on town property which will need posted signage. The motion was seconded by Meredith. The committee agreed, unanimously. Further discussion about how much the cost of signs, if they are provided by the state on request, identification of municipal properties to post signs at and the scope of the no idling policy need to be discussed further. The nature of the no idling policy needs further thought such as should it be codified as law by the Town, or "suggestion".

V. Other Items

Wendell referred to the presentation offered at the previous meeting on a town in Wales that has been inspirational in doing mighty things with energy conservation in spite of being a small town. He proposed that Enfield could emulate that community with use of hydro and wind power. Knowledge of previous use of the Mascoma River and Smith Pond run off for hydro power was shared. It was noted that the current owner of the Baltic Mill does use hydro power and does sell it back to National Grid. The potential for generation of hydro power at the three town bridges for lighting needs further study.

Next Meeting will be on Tuesday July 22 at 5 PM at the same location.

VI. Adjournment

The meeting was adjourned at 7:25 PM

Respectfully submitted,

C. Lammert

6/26/2008; revised 7/17, 2008; 7/21/'08cl