

APPROVED Lyme Energy Committee minutes for November 18, 2013

Present: Mark Bolinger, Sue MacKenzie, Joanna Laro, Robin Taylor, Matt Brown

Absent: Gary Phetteplace, Scott Nichols, Dan O'Hara

Meeting called to order at 7:30 PM by Mark Bolinger

1. Approval of minutes from prior meeting

The minutes of the October 15th meeting were approved, with one minor correction regarding where to file the minutes (with the administrative clerk instead of the town clerk).

Action: Mark to submit to administrative clerk.

2. Discussion of town highway garage

Two things have happened on the town garage issue since the last Committee meeting.

First, Sue and Mark met at the town office to go through the highway garage file, searching for information on the roof (or overall building) warranty as well as how much insulation was to be installed. They were unable to find any warranty information, but did find that walls and roof are supposed to have R-19 and R-30 insulation, respectively.

Second, a number of Committee members (along with Michael Woodard and Jay Smith from the Buildings Committee) met at the highway garage on October 30 to remove two small portions of insulation and check the condition of the building behind where the insulation had been (the insulation was carefully replaced at the end of the inspection). Below is a summary of what was found:

Wall insulation: Appears to be 3 or 4 inches (3 inches compressed, 4 inches when fluffed out). Walls are supposed to be R-19, which is more like 7 inches (?), so we may be a bit low.

Roof insulation: There are two layers. The top batt that lays on top of the purlins is roughly 4 inches (compressed), while the bottom batt is roughly 6 inches. The roof is supposed to be insulated to R-30, which would be roughly 8-9 inches (?), so it seems like the roof probably matches (if not exceeds) our insulation expectations.

General condition of the structure: Seemingly pretty good – only one very small area of rust was observed on the purlin that was visible after the roof cut, while the interior of the uncovered wall panel was free of any rust or discoloring. The roof is painted on the underside, while the purlins, wall panels, and other structural elements appear to be

galvanized – and all appear to be in good shape (at least in these two small sections that were exposed). Condition of insulation appears to be pretty good (still yellow and largely intact). Significant mineral deposits are evident on the inside (roof side) of the white vinyl moisture barrier, which suggests that moisture is getting up into the insulation, with the minerals eventually precipitating out onto the inside of the moisture barrier. The mineral deposits may be salt and they appear to be similar to the deposits that are found on the top side of the horizontal galvanized wall purlins. A sample of this material was taken from a wall purlin as well as a sample of the insulation from the roof at its interface with the white vinyl vapor retarder. The insulation sample appears to have this substance on its surface.

Joanna documented the inspection with pictures that are available here:

<https://www.facebook.com/media/set/?set=a.567938226594307.1073741846.100001344044053&type=1&l=0dc3c475c5>

In light of this generally positive inspection, as well as the substantial costs that would be involved, the Energy Committee feels that further pursuit of the spray foam insulation option is not warranted at this time. We discussed ways in which the moisture problem might be at least partially addressed without re-doing the insulation. One possibility is a heat recovery ventilation system; Sue reported that the Buildings Committee may be exploring that. Another idea was to install a timer on the existing ventilation system, so that it will automatically operate every so often (note: there may be issues with this on days when the intake louvers are frozen shut). Frank Bowles' offer to install moisture sensors in the building and/or walls was also raised once again, so that we would at least have some data to work with.

Action: Mark to follow up with Scott about Frank Bowles' sensors; Mark to send these minutes to the Buildings Committee to serve as the "official" Energy Committee report on the highway garage insulation inspection.

3. Request to install a programmable thermostat in the Academy Building

A yoga instructor who leads sessions at the Academy Building e-mailed the Energy Committee asking whether a programmable thermostat might be installed in the building. At present, she arrives (from out of town) an hour or more in advance of her class in order to turn up the thermostat so that the room is warm enough for yoga. A programmable thermostat could automatically take care of this pre-heating, and also ensure that temperatures return to a lower setting once class has ended.

The sense of the Committee is that this is, in general, a good suggestion. But there are a few potential wrinkles (and this may also fall more under the jurisdiction of the Buildings Committee – particularly since the Energy Committee has no budget left this year with which to buy a programmable thermostat). First, for a programmable thermostat to be used efficiently, someone would need to know the entire schedule of ALL uses of the building (i.e., not just this yoga class, but also others, and not just yoga, but also the

Lyme Historians, etc.) and be in charge of programming the thermostat accordingly (as well as updating the programming as the schedule changes over time). A question was also raised as to whether the building was zoned, and whether the yoga room could be isolated/targeted. Since we were talking about the Academy Building, Matt also raised some unrelated issues that had been discovered a number of years ago through use of an infrared camera: there is an attic hatch that is not insulated at all, and there is also a door on the west wall that is leaky.

Action: Mark to forward the yoga instructor's request to the Buildings Committee, and ideally attend their meeting on December 8 to discuss.

4. Solarize Upper Valley

Mark described a new Vital Communities project that seeks to advance the deployment of residential solar electric (photovoltaics) in the Upper Valley. The "Solarize Upper Valley" project will competitively select up to four UV towns to participate in the program, which will occur in the Spring of 2014. Participating towns are expected to work with Vital Communities, as well as a competitively selected solar installer, to promote solar throughout the town. The general idea is to achieve discounted pricing through bulk purchasing, lower customer acquisition costs, and economies of scale/scope. This "solarize" concept has been implemented in various states throughout the country, and is now coming to the UV. We discussed whether there was likely to be enough interest within Lyme to warrant pursuing this (which, at this stage, would involve responding to an RFP). We decided the best way to gauge this was to send a brief description of the program to the list serve and ask for tentative expressions of interest.

Action: Mark to send e-mail to list serve describing the program and seeking expressions of interest.

5. Budget for next year

A question was raised as to when we need to submit a budget for 2014 (it must be coming up soon).

Action: Robin (who is also on the Budget Committee) will look into this.

6. Next meeting cancelled

Due to scheduling conflicts, people being out of town, and no pressing issues, we decided to cancel December's meeting.

Action: No meeting in December, next meeting on January 20, 2014

7. Adjournment

Adjourned at 8:35 PM; next meeting January 20, 2014.

Respectfully Submitted,
Mark Bolinger (filling in for Dan O'Hara)