

## **Pelham Energy Committee Meeting Minutes**

### **October 9, 2018**

Present: Stan Swiercz (chair), Tony Rogers, John Larsen  
Notetaker: Tony Rogers

Convened 7:33:30 Ramsdell Room

1. No minutes to review

2. New members needed

3. Discussion with Mike Bianchini of R. W. Hall

Mike came to the meeting to discuss the results of his analysis of low-carbon options for a new HVAC system for the community center. Two options were considered: ground source heat pumps ("GS") and air-source heat pumps, specifically Variable Refrigerant Flow (VRF) technology

- Costs – GS is typically costlier than air source. Heat transfer units have roughly the same cost. VRF has electrical components vs pumps in the GS units. VRF – has piping to manifold box and one branch to each indoor air units. VRF piping is small: supply pipe 7/8", return 5/8". GS uses 1.25"-1.5 pipe. Common supply, return. Controls – VRF control costs are slightly higher. Electrical – each heating VRF use low electricity demand, 1-3 A each; GS unit has internal compressors -10-30 A each.
- Operating costs - both systems similar annual energy costs.
- Operation – GS is glycol system. Needs corrosion inhibitors. Higher maintenance. One could add a heat exchanger. Added op cost of GS – ongoing maintenance.
- Design costs – he thinks < \$10K; He'll ask his boss, Sandy. Mid-feb deadline is ok for his schedule. He will provide a proposal.

Tony – send edits to Mike

Discussion: we will need the green light from the town by between thanksgiving and Christmas. We will aim for a discussion at the select board meeting Nov 7<sup>th</sup>. Each system has the same annual energy costs and is a step to zero carbon, \$131K diff between in upfront costs between the two options. Risks/unknowns are greater with GS, well costs, operational costs. Ballpark energy cost savings substantial, electricity prices less volatile. Predictability for town. We get heating and cooling and ventilation. Costs can be covered all or to a great extent by grants. Note all the grants we are working on. Why not new boiler? No grants. Old technology. Tied to fossil fuels.

General agreement – VRF, equal energy costs but cheaper, easier to install, fewer uncertainties.

4. Discussion of Cadmus proposal  
Cadmus – resilient campus concept. Proposal came in today.  
Discussion next mtg.
5. Discussion of Re-lamping progress and payment of initial invoice  
World Energy – Alisa will handle bill. Some equipment arrived
6. Community Center Electrical sensors  
Sensor Installation: The electrician has been contacted but has not responded yet.
7. Report on meeting with Pelham School Committee  
We explained resilient campus idea, progress to date, structural study. It was productive to start a conversation. Mike Morris is willing to use some resources to explore what to do at school. Discussion - how to keep channel open, some to-dos – what is known about building?, send structural report. Schools could be green community. Draft of initial outreach for discussion about school. The principal offered to find people in the school community to get involved. John will follow up on these. Maybe there are school grants? Mike said Pelham school is best infrastructurally of his schools.

Discussion: Mike Hays might be able to help with this for energy committee (he is a former principal).

8. Green Communities Grant

The Green Communities annual report due Dec 3<sup>rd</sup>.

9. EV charging stations

Eversource will put a pole in island. Two stations at end of island – 4 cars.

Next meetings Oct 24<sup>th</sup>, Oct 30<sup>th</sup>.

Meeting ended 10:15