

Nelson Town Buildings Committee

February 11, 2019

Attendees

- Dave Upton
- Russ Thomas
- Lisa Sieverts
- Dave Birchenough
- Sandy Mackenzie
- Earl Creasey
- Guest
 - Greg Blake, South Pack Solar

Action Items

- Lisa
 - Make sure to use the Selectboard Chair email address for Dave Upton

Meeting called to order at 6:02 PM

MINUTES

- Motion to approve the minutes of January 14, 2019 by Russ, second by Dave B, all in favor
- Solar Discussion
 - Dave Upton sent us Dana Nute's report
 - Total Annual Electrical Consumption
 - Heating
 - Lighting and Plug Load
 - Estimated cost of all the required heat pumps
 - \$141K
 - Not including rebates, which are not guaranteed
 - Estimate of solar array size needed
 - Lisa asks whether we have truly tested whether heat pumps provide enough heat during cold snaps. Dave B asks whether there is a recommendation to keep thermostats at a steady state because the heating is so slow. We'd like to get this information from Dana Nute.

- Expect to leave all of the existing furnaces in place as backup. We ask if they can be inter-tied so that propane can be used to do fast heating.
- Dave U has compiled Dana's total kilowatt hours (93,750)
 - Estimated at \$325K for a total for heating and solar
- Greg, looking at 93,750 kWatt/hours to run all the proposed heat pumps
 - Deducted the Library production (10,000 kWhours annually)
 - Greg sized a system, ground mount, Turtle Hill behind sand shed, using his Solar Pathfinder data.
 - Sun hours is good, 4+ hours per day average which is excellent for NH
 - 73 kWatt system needed
 - Need 202 360watt panels
 - 4 rows would be 84 feet long each
 - Compared with 34 panels on the Library roof
 - Greg estimates \$165K if the Town does all the site work including placing the Jersey barriers or earth anchors
 - This includes building the arrays and setting them up
 - Challenges
 - Running the conduit underground to the shed, with the equipment located in the shed, that isn't part of the \$165K
 - Make sure we account for mud flow on the hillside
 - Is the hillside made of ledge?
 - Ask Mike Tarr to dig a hole and see what type of ground we're dealing with
 - We need to disturb the ground as little as possible so as to prevent mud flow
- Funding
 - Dave U has data about how much fuel oil and electricity the Town has used
 - electricity
 - \$6260 in 2018
 - Propane and fuel oil
 - \$14,050 in 2018

- Think that heat pump will cost 10% of current costs
 - Ten years save \$120K
 - Greg notes that the 30% Federal tax deduction will start reducing to 26% at the end of 2019, then reduced to 22% at the end of 2020.
 - This doesn't apply to municipal projects unless an individual or company gets involved, for example, a power purchase agreement
 - And someone can depreciate the system over 5 years, if they have a big enough tax liability to make it worthwhile
 - PUC
 - There may be a rebate, it's hard to know until the application goes in. We'll apply but no way of knowing how much we will receive.
 - Dave B
 - Asks about non-profits perhaps becoming an LLC in order to get the 30% deduction? Probably not something that would work for us
 - Expect to have \$135K in buildings capital reserve by 2020
 - For our Committee as well as public discussion in 2019
 - Do we do the whole project, or building by building?
 - We will do public meetings and see what people have the pockets for. Lay out different scenarios.
 - Keep looking into power purchase agreement, possibly with Greg, to not have a capital cost to the town.
 - "For the cost of a fire truck, you can have free electricity for light and heat for 25 years"
 - Solar on the school?
 - Sandy researched and the project is not moving forward at the moment
- Review of Town Hall Floor warrant article, Article 16
- Discussion of reappointment of the Town Buildings Committee
 - will be addressed by the new Selectboard
- Motion to adjourn at 7:35 PM by Lisa, second by Dave U, all in favor

Next Meeting

- Monday March 25 6 PM