

Nelson Town Buildings Committee

March 25, 2019

Attendees

- David Upton
- Sandy Mackenzie
- Earl Creasey
- David Birchenough
- Lisa Sieverts
- Russ Thomas
- Guests
 - Dana Nute
 - Maury Collins
 - Greg Blake
 - Rob Germeroth

Action Items

- Dave B
 - Research Demand Charges in current Town Buildings electric bills
- ALL
 - Think about an educational series of events for this summer/fall about solar, heat pumps, and why the town should move in this direction

Meeting called to order at 6:01 PM

Maury Collins joins. This meeting had been properly posted as a joint Selectboard meeting with the Buildings Committee

The Selectboard has reappointed these members to the Nelson Town Buildings COmmittee

- Sandy Mackenzie
- Earl Creasey
- Dave Birchenough
- Lisa Sieverts

- Russ Thomas

Dana Nute report

- Goal
 - Determine heating loads of town buildings
 - Develop air-source heat pump design for Town buildings
- Dana says that we did the right thing by weatherizing first, that's the first and primary way save energy.
- Air source heat pumps are not meant to be turned up and turned down. It's important to keep them at a constant temperature.
 - 24 hours is probably needed to get a cool room up to temperature
 - Dave B has question about Mitsubishi thermostats, want to be able to have different schedules because the Library basement meeting room has meetings on irregular schedules.
- Cold weather pumps, produce heat down to -26F
 - We'd expect the backup furnaces to kick in if it's more than a day of -20.
 - This would be a manual process.
 - Follow the ASHP chart, it will say something like "If 0 for 5 days, then add furnace at day X"
 - Leave all the existing furnaces, except in the Old School House because there isn't enough space in the crawl space.
 - Old School House furnace is quite aged, in addition.
 - We agree that we need a backup heat source in the Old School House, like a Rinnai propane heat source. This needs to be included in the budget.
 - Do the ASHP and the existing furnaces use the same ductwork?
 - Yes
 - It would not cause a problem if both ran at the same time, but it would be inefficient.
- Are there any economies of scale in doing ASHP all at once?
 - Probably save about 5% of the total cost
 - Discussion of the advantages of doing one or two buildings first, to uncover any issues before doing all the buildings.
- We must specify sound levels for the equipment, so that especially the Offices, Library, and Town Hall are not any noisier than currently.
- Dana will help develop an RFP
- Funding

- Should we discuss getting a bond to pay for it over time?
 - Yes, as an option
 - CDFA has excellent, low rates for municipalities
 - These are available as a Green Fund for municipalities, for solar and ASHP projects
- We want to make smart decisions that keep the tax rate as low as possible for residents
- Are there other towns doing this?
 - Upper Valley, Hanover
 - Not so many small towns of our size

Solar

- Discussion of economies of scale for the solar project
 - Cost of panels is continuing to go down year to year so that's a vote for phasing
 - And more output for the same physical size
 - The biggest cost is the infrastructure, grid tie-in, so do this all at once for the entire system.
 - Trench
 - Conduit
 - It's possible that federal legislation will change to make solar as attractive to municipalities as it is for residential.
- No need to terrace on the hillside
 - Still need some engineering study of the hillside, to ensure stability
- Question about netmetering
 - This is a current topic in the NH legislature
- Demand charge
 - This hits when there is a high demand, like from a pump
 - This is hard to predict
 - It's worth studying on the recent bills
 - Greg can figure this out from the town's electric bill
 - Dave B will look at the demand charges for the past year
 - Need \$
 - Need kWh
- Rob Germeroth is an abutter
 - Concern about turtles that come up Turtle Hill, Rob thinks the earth anchors will be fine for the turtles (painted and snapping turtles). Kids do sled on Turtle Hill.

- Recreation Use of Turtle Hill
 - Deed annexed the property to the Town Barn property
 - The belief is that Steve Bosworth donated the land for recreational purposes only
 - Agriculture or Recreation only?
 - According to the Deed, this applies only to the grantor's (Bosworth's) right of way, that they can use the road for "agricultural and recreational purposes."
 - What is the overlay between where we want to put the solar array and what Steve Bosworth donated?
 - Steve Bosworth was concerned about the Town Barn starting to encroach on the donated land.
 - Salt Shed is on Town Highway Property, not Bosworth property, and the Salt Shed couldn't be further back because then it would have been on Bosworth property.
 - We suggest that the Selectboard send a letter to Steve Bosworth, asking his thoughts about adding a solar array.
 - We think this was in the 1980s, so the gift would have had to be accepted at Town Meeting
 - 1994
 - Town Meeting delegated to the Selectboard the authority to accept gifts, in general
 - 1995
 - Bosworth Deed
 - Is there an alternative to using that land?
 - We're not sure, as it so far we've only looked at the hillside because it is so perfect.
 - Further research and discussion are definitely indicating that the town is permitted to use this land for a solar array

Education about climate change and renewable energy

- We talked about having Greta Thunberg's TED talk
- Dave B
 - Reached out to Mary Ewell, the Monadnock Energy Hub about getting a speaker
 - Mary recommended Connor Hill, he's a young man, 18 years old, who is very willing to speak.
 - Lisa asks if he is a good speaker. The people who referred him says he is.

- He would speak for free.
 - We like this idea.
 - Dave B will ask Connor if he has any constraints on his dates in July August September
 - Sandy will find out whether we can get a representative from 350.org
- At our next TBC, we will brainstorm and plan the summer/fall education program

The minutes of the meeting on February 11, 2019 are accepted as sent by email, motion by Russ to accept, second by Earl, all in favor.

Audio experiments in the Town Hall

- Lisa mentions a project to do better recording and possibly live-streaming of audio from Monadnock Folklore Society events.
- There is a pair of microphones attached to the light bar
- There are cables running down the wall by the stage. These cables are temporary while we do some experiments. If this works, then we'll move the cables into the cable chase so they won't be visible.
- Recording is only possible when the full Monadnock Folklore Society sound system is in place.
- Monadnock Folklore Society will announce to audiences, either verbally or through posting, when recording is taking place.

Next Meeting

- Monday April 29 6 PM Town Offices

Motion to adjourn at 7:45 PM by Sandy, second by Russ, all in favor