

Nelson Town Buildings Committee

January 20, 2020

Attendees

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

MINUTES

Approval of the minutes of 1/6/2020, motion by Sandy, second by Earl, all in favor.

Greg Blake, South Pack Solar

- Review spreadsheet that Greg developed, comparing different options for siting of solar array
 - Dave B, Dave U met with Scott (electrician) and Greg about electrical hookup to solar
 - The stream between safety building and salt shed
 - This is the issue, to get electricity from array to grid, have to cross that stream. Greg spent time with Eversource on this issue. The solution is to add a service to the salt shed. Add poles to get it over the stream. \$40,000 to build that service (approximately \$15,000 to Eversource and \$25,000 to an electrician).
 - ground mount arrays in Greg's diagram — probably not going to work because the parking is needed for fire training and other events that take place in and around the Safety Building.
 - Maybe we should stick to proof of concept, make enough solar to power one or two buildings, and wait to do Turtle Hill later.
 - Thinking about roofs of the safety building and town barn

- Are the roofs good enough?
 - Needs research
- These buildings are high electrical consumers, so the consumption would be “before the meter” which is good for us
- We agree that 2020 is NOT the year to do solar on the hill behind the Safety Building, and instead we are switching to the proposal for roof mounted systems on the Highway Department building and the Safety Building.
- Problem with Group Net Meter is that you sell to Eversource and then they sell it back to you at a higher rate, not ideal
- Net Meter is like more direct electrical, it makes the power during the daytime, you sort of bank it with Eversource and then you can use it. It’s a better deal overall.
- Dave U says we have to remember to add another meter on the Town Hall, have to have only one host, and want it to be the biggest host for consumption of the new array, therefore take the current library array out of the mix, isolate it from the rest of the group and have it just power the Town Hall.

ASHP bids - from Gary Jackson Heating

- Bad news about our current systems
- All of our old cassettes (only 5–6 years old) are now defective and have to be replaced.
- So total of 3 new heads in Library
- Total of 2 new heads on the Lower Level Meeting room
- And 2 compressors for Library, one for upstairs and one for downstairs. Totally separate upstairs/downstairs.
- Two splits for the Town Hall, in the east corners
 - Needed for the separate meters that we have to have
- All furnaces remain
- We did discover that heating the Library with the heat pumps cost \$500 per month, so Kris has gone back to using the propane furnace. The ASHPs won’t be cost effective until after we have the big solar array up and running.
- Earl, a calculation to do once we’re ready to present the ASHP project to the town
 - Costs this much to buy a furnace, this many gallons to heat with oil over 25 years
 - Compare it to buying a heat pump and the electrical, which also cools

Discussion of Refrigerants, a component of ASHPs

- These refrigerants contribute to CO2
 - 2088 times more contribution to heating in the atmosphere

- Mitsubishi heat pumps
 - The new ones will run at 100% efficient down to 5 degrees, the current ones start losing efficiency at 40 degrees.
 - But the current heat pumps have the bad refrigerant
 - The good refrigerant is only sold in Europe and Japan
- If we don't do ASHP this year, maybe do a smaller array, like a 35kW array this year
 - Greg notes that we have to do an interconnect agreement with Eversource, if we do two smaller projects, then you have to do the interconnect agreement twice.
- The TBC recommends to the Selectboard that we wait another year until the good refrigerant is available in the US

Greg Blake departs

Dave U makes a motion to go into non-public session, Dave B seconds

- Dave B
 - Aye
- Lisa
 - Aye
- Sandy
 - Aye
- Earl
 - Aye

Dave U make a motion to return to Public session, Sandy seconds

- Dave B
 - Aye
- Lisa
 - Aye
- Sandy
 - Aye
- Earl

- Aye

Dave U moves to seal the minutes until a contractor is selected.

- Dave B
 - Aye
- Lisa
 - Aye
- Sandy
 - Aye
- Earl
 - Aye

Next Meeting

- Monday January 27 6 PM

Motion to adjourn by Dave B, Earl seconds, at 6:55 PM, all in favor