

Nelson Town Buildings Committee

January 26, 2015

Attendees

- Dave Upton
- Bert Wingerson
- Sandy Mackenzie
- Maury Collins
- Susan Hansel
- Russ Thomas
- Guests
 - Greg Blake, South Pack Solar
 - 603-924-7229
 - greg@southpacksolar.com
 - 68 Cunningham Pond Road, Peterborough, NH 03458
 - Dave Birchenough
 - Mike Iselin

Action Items

- Sandy
 - Greg looks at the Library roof to see what it could hold. Sandy makes sure a Library Trustee attends, ideally Linda Cates.

MINUTES

Meeting called to order at 6:00 PM

South Pack Solar

- Greg came out a week ago
- Reviewed Safety Building site
- Especially hillside above the ball field
- Edie has put together a report of all of the electricity usage for the town.
- Price of modules has dropped by 50% in 5 years
 - now a hot water system is expensive relative to a PV electricity system

- Greg's philosophy
 - user only Tier 1 Module makers
 - best makers
 - large companies
 - likely to be around in 25 years
 - which is the length of the warranty
 - for it to make sense financially, you have to have the 25 year lifespan
 - typical warranty
 - 12–15 years for workmanship
 - and 25 years to produce 80% of their rated output
- The other piece of the puzzle is the site
 - Greg shows a PathFinder
 - Ideal for NH
 - 194 degrees heading for the array
 - difference between magnetic north and declination
 - which is 180 degrees solar
 - and the tilt is the latitude
 - Greg modeled a 60 255W module array, just as an experiment
 - 15,300 DC Watts for the system
 - This is double the size of the Harrisville array
 - page 3 of the report, Sun Up hours, 4.28 hours average per day
 - This means that the location behind the Safety Building will get 4.28 hours per day, average, every day.
 - Best in NH is 4.6 hours, and Greg has never seen that.
 - use that 4.28 hours, and plug it into any size system you want.
 - 16,594 kW per year, for the 60 255W module array
 - worth \$3,200 at the current PSNH rates per year
 - what will be the inflation in electricity costs?
 - 2% is a conservative inflation rate
- PSNH purchasing the electricity
 - in some states, the utilities are resisting paying for electricity, or paying less
 - other states are more supported of distributed electricity sources

- they can save on infrastructure costs
- most systems are “grid-tied PV systems”
 - in the summer, you generate more than you can use
 - extra electricity goes back into the grid and serves other people
- Solar at the Ball Field
 - It is a long distance from the field to the service at the Safety Building.
 - Means lots of wire and trenching
 - microinverter systems are more expensive

Approve the Minutes of January 12, 2015

- Dave moves, Maury seconds
- all in favor

Report from the Town Buildings Committee

- Maury has drafted a paragraph.
- It should mostly be about the last year
- and a little bit about solar
- Should say who is on the committee.

Maury and Dave attended a meeting in the Library lower level

- Temperature was 15 degrees outside
- Meeting room temperature was about 65 degrees, because Kris is running the propane furnace.
- but the heat pump didn't heat the room up
 - it will provide heat down to -13
 - but you have to give it some time
 - it's designed to set it at 70 and leave it there 24 hours a day
 - but we think that is wasteful
- so we don't want to have another air source heat pump for the archives room

Municipal Records Board met recently to discuss the archives room

- Dave B proposed another viewpoint
- Dave B will look at what another mechanical engineering firm would provide, as a whole new design
- Harris Center's engineering firm
 - cost to look at it + design + recommendation
 - not to exceed \$1,000
 - whole lower level and library
- So TBC recommends that the Selectboard discuss this at their next meeting.

Motion to adjourn at 7:57 PM by Lisa, second by Russ, all in favor

Next Meeting

- Feb 16 6 PM Town Offices
- Greg comes back to talk about the Library and the costs of electricity