

# Nelson Town Buildings Committee

April 30, 2018

## Attendees

- Dave U
- Dave B
- Russ
- Lisa
- Sandy
- Earl

## Guests

- Greg Blake, South Pack Solar

## Action Items

### Dave B

- talk to Koehler about doing an estimate of how much kW is needed, do they want to meet with us on 5/14

### Dave U

- Talk to Newell about doing an estimate of how much kW is needed to replace current load with solar
- Provide bottled water to Town Hall/Library until well receives full DES approval

## Meeting called to order at 6:05 PM

**Minutes of April 2, 2018, motion to approve by Sandy, second by Russ, all in favor.**

## MINUTES

### Solar Installation for Municipal Buildings

- Discussion of the actual heating load of our buildings
  - This is actually hard to measure, it turns out

- Greg discusses available “rules of thumb”
  - Mass Energy website shows conversion between oil and gas usage to projected solar need
    - Greg estimates 52,205 kWh
      - Would need 43 kW DC solar
    - a different formula provides a much higher estimate 300+,000 kWh
      - 1/4 MegaWatt!
    - So it’s hard to figure out what’s really needed
- Dave B suggests Koehler and Lewis as engineers who might be able to do the calculation
- Dave U will check with Newell. We recommend also checking with Koehler to bracket the estimates
  - Could look at the current furnaces and say we want to replicate the BTUs of those furnaces
- Need to look at demand charges, too
  - It’s only recorded at a couple of our buildings, and Dave B doesn’t think that it happens often
  - The best thing is to connect the solar directly to the “pull”, because then you’re getting the retail value of the electricity.
- Heating of the Safety Building
  - Sandy suggest a heat pump for overall, with spot electric heaters for warmth, rather than keeping the whole building at 72 degrees
  - We have a requirement that the temperature be zoned so that there are areas that can be warmed quickly. There will be upset users of the safety building if there isn’t a way to heat key areas quickly, such as the police station, meeting room, employee offices. Also want to be able to have the highway dept garages cooler than the fire station garage.
- Sandy had informal talk with abutter Rob Germeroth
  - He wants to see plans once we have them, but is supportive in theory
  - Our goal should be to keep it invisible to him
  - Location is hillside behind the salt barn
- Discussion of tilting the panels
  - Greg says that tilting doesn’t add much power and adds wear and tear
  - Dave B says the actual advantage is to tilt so that snow falls off more easily

- We note that there is no money in the Town budget for engineering this year, so if we can't get the information we need for free, then we'll have to put money in the 2019 warrant for an engineering study.

## **Energy Conservation Report**

- Have received 50% of the cost of the Energy. Conservation work, almost \$17,000, from Eversource as part of their energy saving program.
  - Newell and Crathern helped with the paperwork to be able to receive this rebate.
- Accepted bids from Newell and Crathern
  - Granite Lake Fire Station work has been approved
  - Town Offices conservation work will probably be approved next week
    - Dave B does not recommend insulating the ducts in the basement of the Town Offices, Ted Stiles said that the duct work did not need to be insulated.
    - In the past, we picked the energy conservation work that had the best return. Do we have the estimates of what the financial return is on these projects?

## **Water - New Well**

- The Town Office water complex has been named as a public water supply by DES.
  - Category 3 - transient use
- Selectboard will provide bottled water starting next week until the well has full approval from DES

## **Next Meeting**

**June 4th 6 PM**

**May 14th is possible for Koehler if Dave B arranges it**

**Motion to Adjourn at 7:21, motion by Russ, second by Dave B, all in favor**