

Islesboro Energy Committee
Regular Meeting
Tuesday, August 13, 2024
In-Person and Zoom Meeting at 5:15 PM

APPROVED

9/17/24

MINUTES

1. Call to Order
Chair Harriet Bering called the meeting to order at 5:20 pm.
2. Establishment of a Quorum
Quorum was established with over 5 members

Members Present: Chair Harriet Bering, Dick DeGrasse, Josh Leach, and Vice Chair Bill Thomas (5:40)

Members Present via Zoom: Cressica Brazier

Members Absent: Myra Sinnott, Monica Mullins, Holly Fields and Melissa Burns, Ex Officio

Others Present via Zoom: Donna Leone, Kizzi Barton, Trevor Blackford

Agenda out of Order

3. Prize Activities update
 - Cressica reported that since the last Energy Committee meeting, the Energy Hub has submitted the final report for the Rural Energy Prize, including eleven letters of support and commitment from different Islesboro community groups and ReVision Energy. Cressica would like to thank the Energy Hub members, especially Janis for her creative writing to fit all of the activities into the 5,000-word maximum.
 - 14 Islesboro residents signed solar hosting agreements, far exceeding our goal. It also exceeded the island's renewable energy hosting capacity if we were to build those arrays.
 - We might hear the results of the prize competition in September.
 - Janis hosted an Energy Hub meeting at which we planned how to move forward with the initiatives that we started during the Rural Energy Prize year, including collective installation of home energy equipment and insulation, DIY weatherization and solar, and community solar.
 - Two weeks ago, we hosted the National Renewable Energy Lab (NREL) representative and the potential microgrid developer for an informational meeting to discuss long-duration energy storage and microgrid plans. Bill gave our visitors an energy infrastructure and geography tour of the island. Meeting participants included the Islesboro Economic Sustainability Corporation (IESC), Sustainable Housing and Development Foundation (SHADF), and the Community Center (ICC), as well as individual Select Board members. We will be following up with NREL in the coming days. Next steps coming soon.
 - Harriet asked Cressica to summarize the meeting. Cressica replied that NREL is putting together a summary for us this week. They described the potential for a hydrogen fuel cell tide grid farming inverter, which could form the core of an island-wide microgrid, as well as a project that would allow them to work with CMP and their power systems data in order to program and design the microgrid controller system. We were also looking at a number of other issues like tidal energy or other renewable energy sources that could provide more firm sources, in addition to community solar. That firm power could potentially enable us to add an electrolyzer and be able to generate hydrogen on the island, allowing us to reduce the amount of

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transported fuels that we would need. Thinking about how this fuel cell system could help us support a more resilient ferry charging system on the island.

- Discussion about how there needs to be ongoing discussion of options.
- Trevor stated that initially when this was raised, there was talk about funds for the development of this resource. If we're willing to have a pilot program, it would cost less—was this articulated further? Cressica answered that this will be part of a more detailed cost analysis. Right now, these are ballpark figures: about \$1.5 to \$2M for the subsidized system, with half owned by a large corporation, and the other half of the system is owned by an office of the DOE or NREL. This system is upwards of \$4M, and about \$2M would be subsidized. We'd be looking for strategies to fund or finance the remainder of the cost. The other corporation wants to be bought out if we use their system. On top of that is the cost of designing the system. NREL is putting at least \$700K on this, in addition to the microgrid controller design. Discussions and negotiations will need to happen with the microgrid developer, NREL, and CMP.
- We have a number of resources to create a community engagement process.
- Kizzi reported that the Window Dressers Community Build will be October 29 – Nov 2. We will pick up the gear on the 28th, and return it on the 3rd. We need people to be shift supervisors for the window inserts. Anyone who's done a build before would be a good shift supervisor. Bill and Kizzi were in the training yesterday. Harriet added that these inserts are low cost, and some can be provided free to those who can't afford to pay. Kizzi clarified that they don't require proof of income, but recipients are expected to work a four-hour shift per 3-5 inserts, depending on how big they are. We're looking for volunteers to provide lunch or do other tasks.

4. Quick Updates on On-going Projects/Old Business

a. Library update—heat pumps and solar (Cressica)

- Harriet stated that the heat pumps are part of the committee's budget for this fiscal year. The Friends of the Library are going to pay for the solar panels, but they would like to know that this committee has looked at the proposal and is in agreement with the plan. Harriet has distributed the proposal to the group.
- Cressica reported that the proposal is for a solar array on the south-facing roof of the newer part of the building.
- Harriet stated that the panels will produce more electricity than the library uses now. They should provide enough to power the heat pumps. If there is excess, it will be credited to other Town accounts.
- Cressica stated that right now, the library uses about 10 mW hours/year. If the heat pumps use the same amount of equivalent fuel that the boiler uses, the heat pumps will use about 9-10 mW additional electricity, so it will approximately double the amount that the library uses, which corresponds to the size of the array, which is about 19 mW hours.
- Dick DeGrasse stated he has performed the mathematics on the library using the amount of fuel used to develop the heat loss, and has compared the btu consumption. He doesn't understand the benefit of converting to heat pumps. The fossil fuel is already paid for. He asked Cressica to explain the benefits.

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- Cressica stated that there are many benefits. For starters, the fossil fuel is not already paid for. It will cost upwards of \$3000/year, even after the new insulation was put in. The electricity for the heat pumps will only cost \$2000/year at current prices. We'd be saving \$1000/year, no matter what. In addition, the Friends of the Library have generously donated a solar array that will cover all those costs, so we're going to be saving \$3000/year.
- Dick asked Cressica to email the math. Cressica stated that he has the numbers. 750 gallons of fuel oil were used last year. That's easily converted to about 9,000 – 10,000 kW hours equivalent of heat pump usage, and that translates into about \$2,000/year of electricity usage vs. \$3,000 of fuel oil usage.
- Dick stated that we have to keep in mind that there are 40 kW hours per gallon of fuel oil x 20 cents/kWh, roughly \$8, and the price of a gallon of fuel is about \$4. It seems we're paying \$8 for electric power vs. \$4 for fuel oil. He would like to see the math.
- Cressica stated the committee has already approved the library heat pumps for this year's budget, and we're executing the project.
- Cressica's math: 750 gallons x \$4 = \$3,000 for fuel oil. Electricity costs: 22 cents/kWh x 9,000 kWh = \$2,000. We will put it in an email.
- Cressica stated we are reviewing proposals for the heat pumps from different companies.
- Bill stated that he thinks the heat pumps are a good idea. His only reservation is that he'd rather have another year of data in order to demonstrate the benefit of the work we've already done. We will turn off the oil system and use it only in emergencies. If after several years it hasn't been used, we will remove it. The solar array will be purchased by the Friends of the Library, but it will go on a Town building. That money will go into the Town accounts and be allocated to all the other demands of the Town. There is nothing to argue against the solar array. The sooner we get it installed, the sooner the Town gets the benefits. It will not be at 20 – 22 cents/kWh because the solar array will cover at least a large percentage of, and probably all of, the cost. The math will be provided.

5. Approval of minutes from previous meeting

Motion: To approve Minutes of July 9, 2024, as written, J. Leach, seconded by B. Thomas. No discussion. Roll Call. Motion passed, 5 yes, 0 no.

a. Town Office update

- Bill reported that the installation of the heat pump system took longer than anticipated. There were leaks in system. Three units seemed to not be working, but the system is now fully operational.
- Last Thursday, a rep from Efficiency Maine came over to do the inspection for the rebate to Solar Logix.
- The feedback from Janet is that the units are working and everyone is happy.

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b. Municipal Building Project Update

- Bill reported that he noticed the foundation insulation is in the interior of the foundation. It would be better around the outside, but he was told by the architect via Lauren Bruce that this was a cost-saving measure.

c. EV Charger update

- Cressica reported that she spoke with the architects and the contractor a couple weeks ago about the EV charger relocation. They are willing to install infrastructure (conduit and cables) to install the charger at the new parking spaces that are farther away from the new health center and the broadband building. We have an agreement to move forward. We might need to provide some money to them if it results in a change order to them and costs the Town more money. We do need to move forward with this if the contractor is going to install the charger.
- Someone spoke with the site manager about the EV charger locations, and now there is some confusion about where it should be located. Kizzi and Cressica have been asking around trying to figure out who it was. We need to check with Murt. Cressica will email him.

d. Maine utility policy/rates update (Dick)

- Dick stated that heat pumps use fossil energy on the Constellation side of the meter. The power supply is generally nuclear and natural gas.
- Bill stated that the solar arrays we currently have cover about 45% of the demand of the municipal buildings. The new array will add to that considerably.
- Dick spoke with Maine Power Options (MPO) / Constellation. They are willing to discuss rates for next year. They indicated it could be less than this year.

6. Tribute to Toby Martin

- Toby Martin passed away a few weeks ago. He was involved with the creation of this committee. There will be a remembrance for him this Sunday at 3:30 at the Up-Island Church.
- Does the Energy Committee want to do some kind of tribute? Plant a tree in his honor in the community park? Or a plaque somewhere?
- Kizzi stated that the Green Times paper, the Library, and the Island Market want to contribute to a tree. Melissa Olson thought that a collective tree in the Remembrance Garden at the Library may be a nice idea. We can talk with Melissa about an amount.
- Bill stated the Green Times is looking for someone to pick up the paper and deliver it to the island in Toby's place. Kizzi volunteered to do this.
- Does anyone from the committee want to speak at the remembrance? Bill suggested we ask Janis. Kizzi may speak as well.
- The first Window Dressers build was on Islesboro, and Toby was part of that inception.

7. Discussion of this year's budget and project plans

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- Harriet stated there were a number of charges that were invoiced in June but paid in July. She will work with Brian Bohanon to sort out bills and get it cleared up.
- For the coming year, we have the heat pumps for the Library, insulation for the fire house, an allocation for a community event, and the EV charger.

8. Other Business—New Member discussion

- Trevor Blackford introduced himself. His family is now full-time on the island. He has always been interested in energy policy. He wants to help make Islesboro more sustainable and efficient. This is a vibrant committee, and he'd like to be part of it.

Motion: To recommend the Select Board appoint Trevor Blackford to the Energy Committee, H. Bering, seconded by B. Thomas. No discussion. Roll Call. Motion passed, 5 yes, 0 no.

- Josh Leach stated he needs to step back due to his business ventures and other jobs, but can still be a contact person. He needs to step off the committee. He will help when possible.

Motion: To recommend the Select Board appoint Janis Petzel to the Energy Committee, H. Bering, seconded by D. DeGrasse. No discussion. Roll Call. Motion passed, 5 yes, 0 no.

Bill spoke with Darryl Crate about the possibility of a solar farm on his property. He may be open to it soon. His reservation is that there will be innovation in inverters and the cost will go down. This could be negotiable with him. He also spoke with Harry Brigham. He is also interested in being involved in solar on the island.

Harriet stated we need to analyze sites for solar and storage facilities. To be discussed at a later date.

9. Next meeting Tuesday, September 10th, at 5:15pm. This is a conflict for many. We can postpone, possibly to the following Tuesday, September 17th. To be discussed via email.

10. Adjourn

Motion to adjourn meeting at 6:21 pm, B. Thomas, seconded by J. Leach. Roll Call. Motion passed, 5 yes, 0 no, Unanimous.

Respectfully Submitted,



Carrie Reed, Secretary

