

Minutes: SIEC Board Meeting, July 2, 2015

The meeting was held in the library to accommodate the large group of members expected to be in attendance. At least 30 people attended and some were tuned in on-line to the broadcast of the meeting.

Co-op President Ed Schwabe called the meeting to order at 6:34.

1. Approval of June 4th Minutes (Eric and Ed)

Minutes Approved.

2. Manager's Report (Jeffrey)

Jeffrey presented the highlights of his report as follows in the starred area:

1. Fuel Tank Removal Update: Billy Banks has produced a plan to remove the tanks. Date certain not yet specified.

2. Frenchboro Workplan Update: On Target was on Frenchboro July 1 and 2 to drill ledge for 6 new poles and 3 anchors.

3. Disconnection Report:

14 Disconnection Notices sent.

11 Normal Billing

3 Payment Plans

6 Paid in Full

3 Partial Payments

4 Working on Payment plans

1 Waiting for Return Call. Messages Left. Disconnects June 9th

0 Accounts Submitted to NRA this week.

4. Nominating Committee recommended that before a name can be put forward on the ballot for Board Membership, their account must be in good standing.

5. Submarine Cable Cost Review: SGC Engineering is preparing a quote to replace the marine cables.

6. No update on Steve Green's Training was given at this time.

3. Financial Close-out Report (John and Bob): The report is attached. Tier was recalculated at 1.816. A \$37,000 surplus is on hand during this reporting period. SIEC experienced a loss of \$32,000 in the same period last year. The Co-op is in a good place financially thanks to the rate increase, costs savings (e.g., Bonnie's Insurance and lower fee for our accountant) and bad debt collections.

4. Meet The Candidates (Ed): Nominees for Board seat election introduce themselves to those attending.

Ed called upon those new Board nominees to say a few words about why they agreed to their nomination. One or two highlights will be reported below. Candidates will get a chance to present again at the annual meeting scheduled for July 23rd upstairs in the Odd Fellows Hall.

Sarah Lane: She is a recent year round resident, serves on the MAC committee and now wants to represent the younger generation on the Board. She has attended several board meetings as a member. Not only is she younger than current board members, but she also has three young children so can represent the parenting generation.

George Baker: Served on the Board representing Frenchboro for 15 years. Has 20 years of teaching experience and also became quite interested in wind energy here and was involved in the Fox Island project. Based on all the evidence, George is a strong advocate of a merger with Emera.

Sam Gramiccioni: Associated with Swan's Island since he started camping here in 1973. A member of the SIEC since 1972 when they purchased a vacation home here. Worked for many years as a plumber and electrician. Understands a great deal about how the grid functions. Was surprised to be nominated.

Jen VanHorne: Has been a member of SIEC for 15 years now and is a year round resident. She has the relevant degrees to be of great help to the board, especially her training and experience in environmental law. She was involved in the rate case so is intimately familiar with those details. She has a good knowledge of "energy credits" and disagrees with George's position on Emera. She thinks that the board needs to be exploring other options.

Lorraine Williams: She has been a part time resident of Swans for 28 years and now lives here full time. She ran a nurses agency with more than 100 nurses and served as a supervisor in a constant care operation. She has good management experience that she could bring to the Board. Lorraine noted the absence of any women on the board and could help also with that imbalance.

John Trask: John withdrew his name from nomination for re-election to the board. He is planning on spending more time on realizing his retirement dreams with which his Board service was beginning to interfere. John was applauded for his excellent service to the board.

Jason Matthews: Is up for re-election but was unable to attend the meeting.

The nominees were thanked for their willingness to accept their nomination and for presenting to the board and attending members at this meeting.

5. Old & New Business

Old Business:

John Trask and Eric Chetwynd presented a summary paper done by the Alternative Energy Committee, attached (*The Question of Independent Power Options*). The paper reviews the information that the committee has considered and shared to date, including the several items on the SIEC Web Site. It summarized the positions taken on the various alternative energy options that have been considered, paying particular attention to the most potentially attractive option of SIEC energy production through a jointly owned solar array. The paper concluded that even running the most optimistic set of numbers for a solar array, SIEC members would still be paying substantially more per KWH than they would under a merger or acquisition by Emera. The paper pointed also the solar options that would be feasible under Emera.

A discussion of SIEC Solar production vs. Emera ensued with strong positions being stated on both sides. Ed and others pointed out that the straw poll vote was whether or not the SIEC should explore further the Emera option. It was not an Emera yes or no vote. The Co-op still has much to learn about what an Emera merger would mean aside from 40-50% rate reductions.

At the end of the discussion the Alternative Energy Committee offered to meet with those interested in discussing its paper to see what other facts or information might come to hand through such a discussion. Fourteen members signed up for the meeting, which will be arranged for sometime during the next ten days or so. The meeting time will be 6:30 at the library and a day will soon be selected and announced. A list of those signing up is attached.

New Business:

a. Review of ANNUAL MEETNG Agenda and Preparations (Ed)

(1) The meeting will be Thursday, July 23rd on the second floor of the Odd Fellows Hall. Heavy attendance is anticipated.

(2) It will be broadcast on Webinar so that those not able to attend or have handicap access only to the first floor can tune in and participate.

(3) EMERA will send a representative.

(4) Ken Schneider will be there and the PUC Public Advocate plans to attend.

b. Preliminary Review of Straw Ballot Returns (Ed). Of the 397 ballots sent out, 140 have been returned so far. Of these there have been 129 yes, 6 no and 4 no opinion. One was blank. Once all the ballots are in, they will be tabulated and validated.

c. Revised Terms & Conditions Update (Bob). Bob reported some new news on this front. Stewart O'Brian of the PUC said no other Co-op has ever so thoroughly revised their Terms and Conditions. They had no precedent for review, so they are setting up a committee of four

(Lucrecia Siu(?), Debbie Davidson, Kathy Adams and Stewart. They will have their review ready by September. Bob noted that at least 20 pages have been eliminated and language updated. It is a much more readable and understandable document.

d. Revised By-Laws Update (Ed). The by-laws date back to 1984 when the first pamphlet was produced. The by-laws need a great deal of updating. Need to compare what the old by-laws said with more up to date versions. This will take some time.

5. Executive Session

Ed on eye operations.

Attachments:

1. **Financial Close Out Report** Ed to attach.

2. Three page paper: The Question of an Independent Power Option

The Question of Independent Power Options

What have we done? Up to this point, the Alternative Energy Committee has been focused on building upon the work of the Cooperative which began in 2010 with a formal feasibility Study for Wind Power. The Committee has gathered material, sought volunteers from the Co-Op membership, and collected opinions from knowledgeable participants. We have not gone beyond the materials listed below posted on our website to explore options. However, options are explored provisionally and for other locations in these posted materials. We have not engaged experts to do an explicit study for an SIEC and member- owned solar array as this would require an investment similar to that undertaken for the wind study on Swan's Island.

On our Web Site:

- Tom McAloon's Study: *Options for Sustainable Delivery of Electric Service to Swan's Island and Frenchboro* (this baseline analysis was adopted by the SIEC as a resource).
- Monthly updated Matrix of Links to Alternative Energy Materials by Topic.
- Report to PUC on Stipulations, including Independent Power section.

Independent power options ruled out for Swan's Island:

- *Tidal power generation* is still in early stages of development such that there is not an option currently available that would make economic, technical or management sense for Swan's Island.
- *Wind Power* has proven to be a viable option technically for Swan's Island thanks to the results of our Island Institute funded (\$50,000) study. However, the numbers ceased to make economic sense when the federal subsidy expired. The initial investment would be over one million for one turbine plus substantial maintenance costs. Since the Cooperative is a non-profit and cannot directly take advantage of the Production Tax Credit, a separate Limited Liability Company (LLC) would have to be formed to raise the

funds, sell the power, and the project costs would have to be paid off over a period of years. Further, the management and maintenance requirements exceed the institutional capacity of the SIEC. Feedback from Fox island indicates that their wind power generation has not significantly decreased their power costs but has raised other issues resulting in expensive litigation due to siting the turbines too close to several homes

- *Diesel powered, high efficiency variable speed generators* match fuel consumption/KWh production to demand and have proven effective for Monhegan. However, the rate charged there per KWh will exceed what SIEC is paying to Emera so not a viable option here.
- *Intermittent operation spruce fired boiler generator* could use waste spruce on Swan's. However, Tom's quick look at the logistics, staffing, land and equipment requirements let him to conclude that this was not something SI should consider.

The Individual Solar Option. Solar is a dynamic growth industry globally in which costs are declining steadily and technological breakthroughs are frequent. There are options for individual consumers such as rooftop solar panels, passive solar heating, solar power generating windows and anticipated big breakthroughs in home solar storage batteries. For individuals, it would seem to make sense where net metering is available. Net metering means that solar households can generate power beyond their own demands and against this surplus, claim power credits from their electric power company which is obliged by law to receive this surplus power. However, there is a fairness downside to net metering, economically speaking.

As the number of solar customers increases, the administrative and management costs of maintaining an electric utility and its grid system that are traditionally loaded onto KWh sales to customers have to be absorbed primarily by diminishing numbers of non-solar customers. Rising electricity rates and resulting customer angst pose a threat to the viability of the power companies in their power generation and grid maintenance. For this reason, it is highly likely that this net metering benefit will not be sustained. Cracks are already appearing in its foundation, even in Maine. SIEC is exempt from net metering, but if it were adopted here, the Co-op soon would be insolvent.

If Emera were to absorb the Co-op, they would be required to provide net metering as long as that requirement survives. Swan's Islanders investing in solar panels might be able to catch the tail end of that benefit. But, solar costs are coming down so fast that household solar panels may make sense even without net metering.

Jointly Owned Solar Power Generation (SIEC and Members). This "solar farm" or "solar array" option on the surface is quite attractive for many of the reasons already stated. Costs are coming down and technologies are ramping up. Already there are solar panels that are hydrophobic such that nothing sticks to them and panels that constantly orient towards the sun. There are many examples of successful community solar farms in the literature. It might be possible to find a free 10 acre site on SI at the dump, the old airport or a tract of land in reserve status with Maine Coast Heritage Trust. Or, it might be possible to lease a site for something like \$250/acre per month (both options were used in illustrative scenarios worked out in Tom's study).

The requirements for such a jointly-owned 10 acre 1 megawatt community based solar array would be as follows:

- ✓ Agreement by SIEC Board and members to undertake such a project.
- ✓ Concurrence of PUC.
- ✓ Professional study paid for by SIEC (Wind study was \$50,000) to determine technical and economic feasibility and parameters (optimal location, average hours of sunlight, recommended technology and equipment, management requirements, maintenance scheme, cost-benefit analysis with estimated rate of return).
- ✓ Land Lease: Free (see above) or at some agreed rental or purchase price.
- ✓ Partner or entity to provide initial capital investment or help SIEC to raise the funds.
- ✓ Create a Limited Liability Company (LLC). To take advantage of the Production Tax Credit, a Co-Op must create an LLC to run and maintain the project and sell power to the Cooperative which it, in turn, distributes to its members, while the LLC sells excess power, if there is any, to the mainland.
- ✓ Installation of solar array and linkages to the grid (low end estimate is around \$3.00 per watt).
- ✓ Management team with requisite skills.

McAloon Illustrative Estimates. To date, we have not undertaken the professional study that would be required though Tom McAloon has provisionally run illustrative numbers on four smaller solar arrays of 100 – 400 KW. The costs to generate electricity from smallest to largest array ranged from 7.44 cents per KWh to 9.58 cents per KWh. This would be the base rate. Billing would include also monthly delivery and meter charges, which account for more than half of what SIEC members pay per KWh. Currently, last month, SIEC purchased electricity from Emera for the equivalence of 9 cents per KWh including line loss and transfer charge. So, when you factor in the reality that under Emera, there would be a negligible monthly meter charge and no delivery charge, opting for solar vs. Emera doesn't compute. The monthly costs would be about what they are now, less the cable line loss and transfer costs.

Fox Island Study. The only actual study of comparable island solar array we have is from the Fox Islands. The cooperative there was contemplating a one megawatt solar array in the area of their three wind turbines. This was seen as a way to compensate for and supplement the lower summer wind, wind turbine power generation. A study was done using the students and faculty of the College of the Atlantic. Even considering the fact that the students were going to install the array, the investment company that was to fund the project said that they could not sell the solar generated power to the cooperative for less than 12.5 cents per KWh during the 7 years in which the company was scheduled to recoup its investment plus profit. After that, of course, the co-op would benefit from a substantially lower cost of production from the array.

Because of the high price per KWh, the Fox Islands co-op will either abandon the plan for now or go for a much smaller project, e.g., in the 100 KW range. Their decision is complicated also by the litigation that has arisen around various grievances over the negative externalities of the wind turbines.

Given the evidence to date, the SIEC Alternative Energy Committee cannot see a clear rationale for undertaking a more in depth analysis of a solar farm array for Swan's Island at the present time. Perhaps someone can convince us otherwise. Regarding the effect that a merger/acquisition with EMERA would have on the prospect for alternative energy on Swan's Island, it appears that the opportunities for net metering, coupled with dramatically lower electricity rates would encourage the wider use of heat pumps and bring about a reduction in the use of fuel oil for heating purposes on both Swans Island and Frenchboro. The net effect would certainly reduce the carbon footprint and simultaneously provide an economic boost to the islands' economies by freeing up more disposable income for other purposes, and aiding the sustainability of population on both islands.

3. Sign Up List for Discussion of Paper.

List of People Interested in the Meeting on the Question of Independent Power Operation		
Name	Phone	E-mail
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