

**Town of La Pointe
Alternative Energy Committee
June 12, 2015**

Members present: Larry Bean, Chair; Glenn Carlson and Tom Banner.
Members absent: Carl Frederickson and Burke Henry
Present by speaker phone: Scott Robinson, Chippewa Valley Alternative Energy (CVAE);
John M. Carroll, Intelligent Power & Energy Research Corporation
(IPERC)

Public present:

1. Call to order.

The Alternative Energy Committee meeting called to order by Chair Larry Bean on June 12, 2015 at 1:13pm at the Town Hall. A quorum of the committee is present as reflected in the members listed above.

2. Discussion of the Scope of the Madeline Island Project:

Conference Call with John Carroll and Chippewa Valley Alternative Energy.

The committee is meeting to enter into a conference call with John Carroll and possibly Scott Robinson to discuss the project on Madeline Island in preparation for a site visit by John Carroll on June 23rd. A call has been put in to connect to John Carroll.

Larry prepared a memo dated June 11, 2015 as to his sense in regards to the project on the Island. His memo has not been endorsed by the committee or the Town Board.

Larry refers to the diagram from Chris Gamer, Common Sense Development which shows the Materials Recovery Facility (MRF), Emergency Services Building (EMS), Winter Transportation (WT) building and the Town Hall as one microgrid with solar and a wood gasifier; and the Library, Medical Clinic and the School as a separate and independent microgrid. Because the microgrids are separate there would not be a need to bore for connection under the right of way. John Carroll's diagram shows all the buildings as one microgrid.

Larry's memo includes a 60kW solar system at the landfill and a wood gasifier between MRF (the closed landfill) and the EMS building. John Carroll shows an 80kW biomass generator. This biomass generator has yet to be identified as to how much fuel would be needed. Larry has a 22kW solar array behind the Town Hall.

Across Big Bay Road at the second microgrid the Library and Medical Clinic would have a 22kW solar array above the Town parking lot. If the school were added that would change from 22kW to 36kW; to be noted, the Library, Medical Clinic and School could have their own microgrid with or without the other.

Larry will meet with the clinic staff and board on June 17th. The Library supports the microgrid project and Larry has been given a contact from the school, as the School is not a Town owned building, but that person has not yet responded.

Larry said he suggests the following projects that were included in the recommendation from CVAE be either deleted or delayed: the 4kW system at the Town Park, the 30kW array for the airport, 4kW for a pump and the 100kW system for the Sanitary District. The Madeline Sanitary is a separate customer and has asked to delay. The Committee needs to encourage the Sanitary District to do some motors and pump work to increase efficiency. Larry has not included the Town dock in the project.

Glenn and Tom like what Larry has presented. Larry said the delayed items could be added incrementally at a later time.

Scott Robinson, lead installer from CVAE is now on the phone. He has been trying to dial into John Carroll's conference call but there is no one on the line. Larry said we have the same problem so we started our meeting and have been discussing Chris Gamer's diagram and Larry's memo. Scott said he has looked at the diagram and has received the diagram from John Carroll this morning.

Larry said the committee was discussing two microgrids: One for the Library, Medical Clinic and School and the other for the Town Hall, WT, EMS and the MRF. The Town Hall, WT, EMS, MRF microgrid would have a 60kW array solar array on the closed landfill, a bio-gasifier between EMS, WT and MRF and a 22kW solar array at Town Hall. There would be a 36kW system for the Library and Medical Clinic. Scott said this would be a 32kW system for the School, Library and Medical Clinic as he had the Library and Clinic as one and the School separate. Larry said he remembers there was a 12kW and 16kW for the Library and Clinic. The School would double the size. Scott said yes. Larry said he is suggesting that we choose to delete or delay the Town Park, the airport, pump, Town dock and the Sanitary District 100kW system and to not include those as part of an active package.

Glenn said we have lost the connection with John Carroll. Scott said he had called John and left a message.

Larry said on John Carroll's diagram we go from 60kW on the closed landfill down to 35kW on what appears to be the roof of the EMS building. That 35kW system is not correct in the sense that it is only an alternative that we could use part of or chose not to use at all at the landfill. The best case is that the 35kW system would not be part of the project. Scott said he was looking at the wood gasification unit which is located by the closed landfill. If you are using combined heat and power it would be beneficial to move that closer to the EMS building to heat both the EMS and WT building. Agreement from all.

Larry said John shows the biomass unit as 80kW. Scott said this is a larger, fully automated system. There is a smaller unit, 35kW that needs cleaning every six hours and costs less. You could get two units for the price of the 80kW. Need to talk to John about this.

Discussion of the size of the system and the equipment/heating that would be run. Question if all the MRF equipment needs to be run on a cloudy day in winter. If so, a larger system would be required or could we get by with a smaller system and a wood gasifier that would cover the majority of the loads but not all. Scott said we need to talk to John about the heat load and optimization. Larry said we need to explore the automation.

Larry asked Scott if the total for a realistic sized project at the time is 150kW but would that get us in trouble with the 100kW limit. Scott said if you have the school involved you could take the school off as they are separate from the Town. Larry said the School shares a well with the Library and Clinic. Scott said Xcel requires a tremendous amount of documentation if you go over 100kW, but if they are two separate systems, according to the PSC.....there is the tariff and then there is the interpretation.

Discussion of overproducing and pulling off the grid.

Glenn said at this point we do not know if the School is interested. Scott said we could say we are going to put in a 99kW system and see what we can get. Discussion of various systems.

Larry said he just called John. John was called out of the office so we will do the conference call for the scheduled Wednesday meeting next week. Larry also told John about the independent microgrids and that the 35kW system on his map is really a fall back and not part of the plan.

Larry would like Scott to clarify the wood needs for our gasifier and tell us what kind of cord we are talking about. Scott will email that information to Larry.

Larry would like to extend an invitation to the Bean house on Monday, June 22, 2015 to meet John Carroll. Thank you to Scott.
The recorder was turned off.

3. Set next meeting and agenda.

4. Adjourn.

Meeting ends at approximately 1:15pm.

Minutes taken from recorder and respectfully submitted by Kathy Erickson, Clerical Assistant

Minutes approved as presented August 27, 2015