

**Ad Hoc Community and Public Works Planning Committee (CAPP)**  
**Alternative Energy Committee (AEC)**  
**August 30, 2010**

Members present: Larry Bean, Chair; Burke Henry, Vice Chair; Alan Fischlowitz, Tom Banner and Carl Frederickson

Members absent:

Also present: Rory Artig, representing Windustry; Chuck Irvine

**1. Call to order.**

The Alternative Energy Committee meeting called to order by Chair, Larry Bean on Monday, August 30, 2010 at 10:01 a.m. at the Town Hall. A quorum of the committee is present as reflected in the members listed above.

Larry Bean would like to thank the committee and especially B. Henry for all the work they have done over the past year in his absence. Members are glad to have L. Bean back.

**2. Review and approval of the following AEC minutes:**

**a. July 13, 2010**

Motion by B. Henry to accept the July 13, 2010 AEC minutes as presented, second, A. Fischlowitz. All in favor, all aye, motion carried.

**3. Financial Status.**

Waiting for a bid from Wind Management, LLC, Rory Artig, owner, to move the met tower from Big Bay State Park (BBSP) and reassemble the tower on the north end of the Island. A bid has also been requested from Seventh Gen, though that bid request did not include reassembling the tower on the north end.

The committee would also like bids from Wind Management, LLC and Seventh Gen to dismantle and move the met tower back to Bad River.

Rory Artig asked Windustry about a conflict of interest in regards to submitting a bid to move the tower since he represents Windustry in regards to the RBEG (Rural Business Enterprise Grant) that was awarded to the Town of La Pointe Alternative Energy Committee. Windustry said Rory could bid as long as the bid was competitive.

A summary sheet from Barb Nelson, Administrative Assistant, dated 8/27/2010, is in committee folders. B. Henry hands out his AEC financial report dated 8/30/2010 to committee members.

There is a difference in the bottom line between Barb Nelson's summary and B. Henry's summary in the amount of an estimated -\$1,000.00; Barb Nelson reports approximately -\$4,000; B. Henry's report shows approximately -\$3,000. The two reports will be reconciled at a later date.

Discussion of how to cover the overrun. Seventh Gen has said the instrumentation on the tower does not have value and they recommend a customer replace all the instrumentation and anemometers because the life of the equipment is about 2 years.

The tower lease extension with Bad River in the amount of \$2,000 has been signed. If the tower would be dismantled and returned to Bad River there is a possibility that part of the lease money could be reimbursed. The committee could ask for help from the Windustry RBEG (Rural Business Enterprise Grant), the Island Association or the OEI (Office of Energy Independence).

**4. Final Report of SODAR Wind Measurements at Big Bay State Park and invoice.**

Bob Owen predicts that the wind shear above 50 – 100 meters would be in the .4 region. Rory did an analysis of the raw data and came out almost 10% less than what B. Henry's analysis. The SODAR project was funded by Xcel with the Town as the financial agent. Bob has submitted his report to Xcel and to this committee and included his final invoice. Motion by B. Henry to recommend to the Town Board that the Town Board pay the final invoice submitted by Bob Own for final Sodar measurements at Big Bay State Park (BBSP) in the amount of \$1500.00. Second, A. Fischlowitz. All in favor, all aye, motion carried.

## **5. Future Plans.**

### **a. Met Tower.**

### **b. Windustry Grant.**

### **c. Preparation of report to Town Board.**

These items will be discussed as one.

B. Henry prepared and gave a presentation at Museum as part of the MIWP lecture series.

C. Frederickson and B. Henry traveled to the public hearing held by the Public Service Commission (PSC) regarding wind siting regulations as well as viewing turbines and wind farms at Byron and Brownsville, WI. Their conclusion is that noise is a major issue and would affect potential home sites on the north end.

B. Henry said the PSC is in the process of establishing the following three classes:

- Small Wind (no more than three turbines, not more than 100 kW) with minimal requirements;
- Community Wind (15 megawatt projects for educational institutions, towns, etc.);
- Large Utility Sized Wind.

The PSC changed their position on setback from 3.1 x the total height of a turbine away from a non participating residence back to 1.1 x the total height. The noise requirement will be that a project will not produce more than 50dba at the wall of a non-participating residence. The PSC said anything less than 50dba does not affect health. However, the PSC did not take into consideration that annoyance could cause a person to be sick.

Rory said there is great variability in noise levels but it is important to know the decibel number at the base of the turbines. There is the whoosh of blades, the grinding of the transmission, the hum of the transformers and noise from huge fans kicking on.

L. Bean said the response he received from Larry Flowers, head of the Wind Powering America initiative was that the poison pill for community wind projects is the inability to come up with pre-development costs of about \$100,000 that are needed for the various studies.

Noise, the IMA (Important Bird Area) and finances are big issues. Finding funding is difficult. Independence is an important value on the Island so this committee needs to review past discussions and encourage individual solar and wind installations. The committee has done a fantastic job raising funds but now several hundred thousand dollars is needed for various studies.

If the decision is to proceed with a utility scale project the met tower will have to be moved, and the committee needs to find out how to proceed with the Windustry grant.

C. Frederickson said the DNR is anxious to see the tower go. Rory suggested that the met tower stay up until November so there would be two full years of data. If the decision is not to move the tower to the north end that would stop the project because it would be too expensive to bring the tower back. The numbers do not look good at this time but no one would invest if the data cannot be confirmed.

Rory said the Windustry RBEG grant money could be spent on a wind resource assessment and the committee could request a proposal from Wind Logistics of MN but they would need the type and height of the turbine to do the study. Another study would be to find out if there is a

technical barrier with the electrical grid. B. Henry did some load analysis and the committee met with Xcel Energy in this regard but there has to be an official study as very advanced voltage control equipment might be needed to regulate the flow through the transformers to and from the Island.

Decisions have to be made regarding the following:

- Noise analysis, estimated cost of \$6,000- \$8,000.
- Moving the tower to the north end, estimated cost of \$20,000, which includes an analysis contract with a meteorologist, installing and dismantling the met tower.
- Interconnection study, estimated cost \$2,000 - \$5,000 which Rory sees as the next step after deciding the size and height of the turbines. This would give you the capacity. After that study you would need a transmission study. These two studies can be funded by the Windustry grant.

However, if the dilemma is that this committee feels noise will be unacceptable on the Island, why proceed?

Discussion of options to proceed which are:

1. Join with Bayfield County;
2. Go from a community wind program to individual home sites;
3. Break our aim of 100% energy independence by 2025 to 25% energy independence by 2025. This could be accomplished with small equipment and using alternative sources of energy such as biodiesel or the use of wood fired boilers.
4. Say that the wind program will not work and ask the Town Board to give this committee some direction.

Rory said the Island could become energy independent tomorrow by buying wind energy from Xcel, which would cost more but would save in the long run.

Agreement that the wind farms developed in Byron, WI would not happen on the Island.

Question if the turbines could be placed on an unoccupied island in the Apostle Islands and the power transmitted back to the island? Transmission could be a problem. In full debate now is the possibility of wind or solar on public lands. Birds would have to be studied, also.

Discussion of the impact of noise on potential properties on the north end. There is no analysis that will guarantee 100% that there will not be a problem with noise so does the community really want to do a sound study?

Motion by B. Henry that the committee stop studying the potential for installing a community wind sized project on Madeline Island that is up to 15 megawatts, but the committee will continue to study a 100 kw project.

Discussion that 3 small wind turbines of 100 kw each could produce 300 kw.

Rory said the motion is to stop studying the large turbines in favor of studying 100 kw or less.

Motion dies for lack of a second.

Short discussion of the four site assessments completed by this committee.

Suggestion to use the word "acquisition" in the motion

Motion by B. Henry that we terminate the study of utility sized wind turbines on Madeline Island and continue studying the acquisition of wind energy benefits to Madeline Island, second, A. Fischlowitz.

Chuck Irvine asked about zoning regulations for individual units. The PSC is in the process of taking the regulations away from the local authority and giving that authority to the State.

No further discussion. All in favor to the motion on the floor, five ayes, motion carried.

Motion by B. Henry to move the met tower from BBSP and transport the tower back to Bad River, second, T. Banner. No discussion. All in favor, five ayes, motion carried.

When the bids are in from Seventh Gen and Wind Management, LLC the met tower dismantling will be discussed.

About \$3,000 is needed to balance the books.

Motion by L. Bean to ask Rory Artig to approve that not more than \$5,000 of the RBEG Windustry grant money for Madeline Island be used to complete this measurement program at BBSTP. Second A. Fischlowitz. All in favor, five ayes, motion carried.

B. Henry has scheduled a presentation at the Library on September 16<sup>th</sup> at 7 pm to update the presentation he gave at the Museum this summer. B. Henry has also requested that the AEC be placed on the September 14, 2010 Town Board meeting agenda. Agreement that the Town Board should be aware of the discussion at this meeting and that a final written report will be submitted to the Town Board at a later date.

B. Henry will include goals, steps taken, data, analysis, assumptions at the beginning of the project and now and major flaws in the final report that will be titled Phase I Final report. He will also include the residential assessments, and that this committee discussed solar/clouds/haze, geothermal and wood. L. Bean will help with this report. Report due date will be January 1, 2011.

L. Bean will contact Mike Amman of Bayfield County for an update as our interest has increased in sharing a project with them. If a connection study would be done that study would be in the context of a Bayfield study. Also need to meet with the Chequamegon Bay Consortium.

Rory said a met tower could be funded through the Windustry RBEG funds. B. Henry said Samantha of Windustry has submitted a grant application for Phase II and also to the Bremer Foundation.

L. Bean will negotiate with the DNR to keep the tower up until November 15<sup>th</sup>.

#### **6. Schedule next meeting.**

Next meeting scheduled for Monday, October 11<sup>th</sup> at 10:00 a.m.

#### **7. Adjourn.**

Motion by L. Bean to adjourn, second, B. Henry. All in favor, all aye, motion carried.

Thank you to Rory.

Meeting adjourned at 12:15 pm.

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

Minutes approved as presented October 8, 2010