

**Alternative Energy Committee
Ask the Assessor Meeting
July 8, 2013**

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

Members absent:

Also present: John Johanning, Let It Shine! Solar Site Assessor

Public present: Gary Krubsack, Lisa Potswald, Keith Sowl, Carol Sowl, Bill Fennell, David Thomas, Anne Lacy, Carl Frederickson, Marge Frederickson, Marina Lachecki and Barb With

1. Call to order.

The Alternative Energy Committee meeting called to order by Chair L. Bean on Monday, July 8, 2013 at 6:05 pm at the Town Hall. A quorum of the committee is present as reflected in the members listed above.

The Solar Site Assessor, John Johanning has completed site assessments for the Town and a number of residential properties on the Island. This meeting is being held to give people who have had site assessments or who have expressed interest in having a solar site assessment the opportunity to ask questions.

2. Introductions.

Introduction of John Johanning, solar site assessor, who conducted the 8 residential solar site assessments and the one solar site assessment for the Town of La Pointe at the closed landfill. Introduction of people who have had solar site assessments on their property: Gary Krubsack, Lisa Potswald, Bill Fennell, Marge Frederickson, Keith Sowl, Carol Sowl, Anne Lacy and Marina Lachecki.

Handouts are available including a list of 21 installers, an article from Time Magazine – solar is getting cheaper as well as an article from Home Power magazine on PV Array Siting. L. Bean has included copies of his site assessment.

3. Questions and discussion.

Discussion of the Larry Bean site assessment/possible installation and estimated costs for a 6kw top of two pole installation. J. Johanning said the pole rack cost does not include the poles so two poles would cost about \$1700.00. Might not need site prep (\$1,000)

L. Bean said the total estimate for the installation is \$24,430 with an additional \$1700 added for the poles. With the 30% tax credit and State support the total estimated cost is under \$15,000. With income from the system the payback period would be a little over 8 years. This is a rather optimistic example.

J. Johanning asks if L. Bean is taking the electricity he is producing and getting paid for and dividing that into the total estimated final cost of \$14,701. If so, after the 8 year payback time you would have a system that is worth \$15,000. L. Bean said according to research done at the University of CA a solar installation on a home adds \$17,000 to the value of the home.

G. Krubsack asked about life expectancy of the system. L. Bean said 30 years; J. Johanning said closer to 50 years.

C. Sowl asked if L. Bean's payback so short because he has so much off peak consumption?

L. Bean said yes. These are rough calculations but he calculates that he has an additional income of \$500-700/year.

K. Sowl asked how big a pole is needed. J. Johanning said he uses a schedule 40 pole but there are several different ways to install and several different types of poles but to be noted is once you move away from the specs of a manufacturer you will absorb some of the liability if there is a problem. You would need about 2-1/2 yards of concrete per hole.

G. Krubsack asked about a tracking system. J. Johanning said a tracking system would increase production by 25-30%. In 2007 the module panels were 4 xs as expensive as they are now so that is why tracking systems were used. Now it is cheaper to add panels and face south.

L. Potswald said a roof mounted system was suggested for their residence. J. Johanning said you could do a pole and a roof mount. The house was a good option but not the garage. A roof mount is cheaper but that depends on the condition of the roof as a roof wears out so, if you have a bad roof, reroof first!

L. Bean asked if there is anything a homeowner could do to lower the cost. J. Johanning said they could dig the hole, if they knew an electrician they could run the conduit and wires.

C. Frederickson asked about the installation weight per sq ft on the roof. J. Johanning said a panel weighs about 40 pounds; 17 sq ft = 3#/sq ft. L. Bean said with roof mounts you need to maintain a 3 foot aisle on one side and a 3 foot aisle across the ridge, bare, with no collectors. J. Johanning said that is code so firefighters and repair people can access the roof.

B. Henry said their use is about 10,000kw/year at an average cost of just below \$1200.00/yr. According to the assessment they would need a 7.8kw solar array. To calculate costs he used \$4,000/kw so the estimated installation cost, after State support and the tax credit would be \$21,000. He also included 3% per year for inflation and the end result shows a breakeven point of about 16 years. He added 16 years to his present ageand whether he will break even in his lifetime, he does I do not know.

According to the site assessment information in Wisconsin we receive an average of 4.4 hrs of sunlight a day. J. Johanning said that is based on a sun hour which is the actual radiance in the sun or 1000watts per square meter.

L. Potswald asked if there would be any other funding opportunities for the installation of a solar system. L. Bean said the committee has not talked about the next steps. C. Frederickson asked if the group could go with one contractor. L. Bean said he does not think that would work, but the group could say to the contractor - there are 6 or 8 people who want an installation and what could you propose to this customer base? G. Carlson said this would be similar to when the Island had an asphalt plant set up. The driveway materials would be less expensive but you still had to find a contractor to put the driveway in.

L. Bean asked about an alternative to digging holes for the poles. J. Johanning said a 3 ft auger is a possibility if you do not think you will hit rock 8 ft down. J. Johanning uses a backhoe to dig a 4 x 4x6 area. There are cement costs. Alternatives are sonotubes or ballasted mounting. The racks can be built out of pressure treated lumber but J. Johanning prefers to stay with manufactured product because of liability.

T. Banner asked about upgrades to the system. J. Johanning said he does not have a policy in place to upgrade or buy back old equipment.

L. Bean said another option is leasing. He has been talking to a person who is looking for someone in Wisconsin who could come to talk to us about leasing. With leasing, the company will size the system and install the system on your property. You then lease the system at a lease payment that is less than your monthly utility cost. After 10 years or so you will have a chance to buy the system at a residual value.

J. Johanning said there are legal issues with the utilities.

G. Carlson said the leasing company gets the tax benefit.

M. Lachecki has a unique circumstance as the consumption for three buildings: Woods Hall, the church and parsonage is about 30,000kw hours/year. G. Carlson said buildings such as these would not have the payback period restraint and because they are tax exempt and they would not get the tax credit. L. Bean said because the buildings would last so long leasing might be an effective option.

C. Frederickson asked who is responsible for the upkeep of a system, or if a branch falls on the installation if you are leasing. L. Bean said the leasing company is the owner so they would be responsible for upkeep, maintenance and operation. A. Lacy said if you owned the installation you would have to find someone to maintain the system.

No more questions.

A big thank you to all.

4. Set next meeting and agenda.

B. Henry has talked to the Island Association. Purpose of a request for funds would be to help finance the studies and recommendations in regard to solar systems and to meet with the DNR, Energy Office etc. in Madison. Suggestion to ask the Island Association for \$1,000. B. Henry will draft the request to the Island Association.

Discussion that if the landfill site would not work, there is the airport and other sites that would meet the requirements for a solar installation.

We now have a template from the solar site assessments that can be used by people to plug their information in. There is also a website: PVWATTS (use immersion 2) where you can calculate your solar assessment. To be noted is that both B. Henry and G. Carlson have watt meters.

Next meeting tentatively scheduled for July 29, 2013. L. Bean will send out notices and an agenda.

5. Adjourn.

Motion to adjourn by L. Bean, second, T. Banner, all in favor, all aye, motion carried.

Meeting adjourned at approximately 7:00pm

Minutes taken from recorder and respectfully submitted by Kathy Erickson, Clerical Assistant.
Minutes approved as presented August 15, 2013