

Renewable Energy Committee

Thursday, December 15, 2011 – 3:00 P.M.
Polk County Government Center, County Board Room
100 Polk Plaza, Balsam Lake, WI 54810

- Call to order
- Approve agenda
- Approve 11/17 minutes
- Public comments
- Marlin Baillargeon and Tom Engel report on Waste Oil furnace project at recycling center and energy saving improvements.
- Tim Anderson on Justice Center grant application status
- Members comments and reports
- Set next meeting
- Adjourn

(Agenda items may not be presented in this order)

This meeting is open to the public according to Wisconsin State Statute 19.83. Persons with disabilities wishing to attend and/or participate are asked to notify the County Clerk's office (715-485-9226) at least 24 hours in advance of the scheduled meeting time so all reasonable accommodations can be made. Requests are confidential

RENEWABLE ENERGY COMMITTEE
Polk County Government Center, County Board Room
Polk County Plaza, Balsam Lake, Wisconsin 54810

Minutes of December 15th, 2011 Meeting

Vice-chair Tom Engel called the meeting to order at 3:03 p.m.

Present were county board supervisors Jay Luke and Kathryn Kienholz and citizen members Marlin Baillargeon and Joe Cronick. Supervisor Kim O'Connell and citizen members Gary Dado, Timm Johnson, and Gregg Westigard were absent.

Also present was Tim Anderson, Polk County planner and representatives of LT Solutions Corp.

Motion by Luke / Kienholz to approve the agenda; carried by voice vote.

Motion by Baillargeon / Luke to approve the minutes of the November 17th meeting with the addition that Westigard was absent; carried by voice vote.

Public comments.

Three representatives of LT Solutions Corp. (Daniel Weiss, Myron Ostby, and Gary Vidlock) were present to give a presentation on their energy-saving LED bulbs that contain no hazardous materials.

Tube bulbs are available as a retrofit to 2-foot, 4-foot, and 5-foot fluorescent fixtures. The retrofit requires merely removing the ballast from the existing fixture. The LED bulbs use roughly half as much electricity as the same length fluorescent bulb while providing at least as much light. Their several other advantages over fluorescents include instant on, no warm-up, and being unaffected by cold temperatures, as well as being completely free of hazardous materials. They are available clear or frosted and are unbreakable. The quality of the light is equivalent to that of a sunshiny day, approximately 6,000 kelvin; they are also available in other temperatures down to 2,700 kelvin, equivalent to an incandescent bulb. The tube bulbs are available with or without a motion sensor or can be controlled by a wall switches or sensors.

The company also offers LED spot and floodlights that can be screwed into existing light sockets. These contain 100 LEDs and are dimmable with a proprietary dimmer.

All the bulbs are UL listed. The tube bulbs are manufactured in China; the spots will be manufactured in Brooklyn Park, Minnesota after January 1, 2012.

A single 4-foot bulb is \$50, but volume discounts such as the county would qualify for are available. Focus on Energy offers a \$25/bulb rebate; it is possible that Northwestern Electric may offer a rebate as well.

The statistic was offered that, as a general rule, roughly 40% of a building's electrical usage is

lighting. Given that the Justice Center's 2010 electric bill was \$170,000, the annual savings in electricity by replacing all existing bulbs by these low-heat, low-energy LEDs could save approximately \$30,000+ ($\$170,000 \times 40\% \times \frac{1}{2} \approx \$34,000$) annually.

Weiss and Ostby stated that they could give a better estimate to provide bulbs for the Justice Center once they knew the number of bulbs needed, the exact types, and the type of fixtures. With this information plus determination of the rebates available, the committee will be able to do a full cost/benefit analysis of relamping the Justice Center with these LED bulbs.

Luke will contact Weiss to get full product literature on the bulbs, then contact Deb Peterson, buildings director, to share the information with her. It was noted that she is already planning to update the lighting in the Justice Center garage.

Waste oil furnace at the recycling center.

Engel presented an analysis, based on installing two waste oil furnaces, the required berm, and the storage totes, that showed a 7.5-year payback. The committee discussed the possibility of installing just one furnace to keep the cost down and using the existing LP furnace as backup and auxiliary heat. The savings would still be roughly 75% of that by installing two furnaces.

The recycling center currently collects about 20 tons of waste oil a year and sells it for 40¢/gallon. This yields roughly ~~\$5,500~~ \$2,000 per year in revenue that would be lost by burning the waste oil (~~44,000~~ 40,000 lbs / ~8 lbs per gallon x 40¢ = ~~\$2,200~~ \$2,000). This lost revenue was taken into account in Engel's analysis. Engel stated that he believes the recycling center may still have excess waste oil to sell even if they are using it to heat the building, so the ~~\$2,200~~ \$2,000 figure is probably a maximum. (Note: figures are updated from those presented at the meeting, based on waste oil quantity and price information subsequently obtained from Peterson.)

The committee agreed to invite Peterson to the January meeting to discuss the furnace project.

Energy usage at the Justice Center.

Tim Anderson reported on his research to finding funding for a full energy audit of the Justice Center. He found that Focus on Energy, that did a small audit of the building, will not go deeper. A more comprehensive audit would have to be done by an engineering firm.

Luke will discuss this with Peterson when he contacts her.

Next meeting of the renewable energy committee will be Thursday, January 12 at 3 p.m.

Motion by Kienholz / Luke to adjourn; carried by voice vote.

Adjourned at 4:45 p.m.

Respectfully submitted,

Kathryn Kienholz
Substitute Secretary