

Minutes of the Montana Renewable Energy Association
Quarterly Meeting, October 11, 2006
Great Falls

Present: (6 of 9 board members present, 5 required for a quorum)

Dave Ryan (NCAT & WindPark Solutions America), President and Board Member
Chris Borton (Sage Mountain Center), Vice President and Board Member
Patrick Judge (MEIC), Secretary and Board Member
Steven Aagenes (InSolar), Board Member
Kathi Montgomery (DEQ), Board Member
Mikey Strickland (Dearborn Electric), Board Member
LuMarie Strickland (Dearborn Electric)
Conor Darby (Independent Power Systems)
Sean Micken (Independent Power Systems)
Orion Thornton (Independent Power Systems)
Gary Brumley (Independent Power Systems)
Roy Nollkamper (Glacier Electric Cooperative)
William "Logan" Bryce (Pine Ridge Products)
Jenni Bryce (Pine Ridge Products)
Matt Elsaesser (SAVE Foundation)
Jason Schmidt (Phanes Solar)
Wendy Kleinsasser (WindPark Solutions America)
Peyton Huffman, observer
Peggy Beltrone (guest speaker, Cascade County Commissioner)
also, Lisa Hardiman and her son attended the Wind Turbine Test Site Tour

Tour of the Pine Ridge Products Wind Test Facility: Logan and Jenni Bryce graciously opened their home to MREAers (and to both a reporter and photographer from the Great Falls Tribune), to discuss small-scale wind. The Bryce's have tested a variety of different designs (8+ turbines total), and currently have three turbines installed (and two solar arrays):

- the 1.8 kW Southwest Wind Power Skystream 3.7 (meter diameter) machine -- leading the new "urban turbine" revolution, with all the electronics housed in the nacelle -- simply plug into a 30 amp circuit breaker, and it will feed 240 volt singlephase AC -- the tower is 32 feet -- the price is \$5000 with the tower (they spent another \$700 installing it themselves) -- they've had this one for 3.5 months, and Southwest is hoping to launch major production in the next month or so, electronically controlled braking for high winds
 - a Bergey 10 kW Excel machine -- very reliable, 400 RPM, 80 foot tower, furls in high winds
 - a Eoltec 6 kW machine -- French company, quiet, low RPM (245), reliable (1.5 years and no problems), active blade pitch control (just like the utility-scale machines), it is also cost-effective -- \$20,000 with the tower, and it has produced 87% of the Bergey's output, 80 foot tower
- The Bryce's get an average wind of 13 mph, and have a net-metering agreement with Sun River Co-op (to whom they forfeited 1500 kwh last January).

Logan also mentioned that he is supplementing their wholesaling and installation business by moving more in the direction of design and manufacture, and showed the group a prototype of a injection-molded machine, with aluminum tail and neomagnets that doesn't flutter (making it quieter). He's calling it the Wren, and it will peak at 300 Watts in a 32 mph wind. Stay tuned!

President Dave Ryan called the meeting to order at 1:26 pm. He led a round of introductions.

Minutes: Patrick Judge moved that the minutes of the July 5, 2006 meeting be approved, and Kathi Montgomery seconded. The motion passed unanimously.

Treasurer's Report: Chris Borton presented the Treasurer's Report in Chris Daum's absence. According to an email from Chris Daum dated 9/26/06, MREA has \$6,618.83 in its bank account. There is one outstanding check, in the amount of \$250 to the SAVE Foundation for the Earth Day event. MREA currently has a record 40 members.

Officer Elections: Chris Borton moved that the officers of the board of directors for 2006 be the same as they were for 2005: Dave Ryan, President; Chris Borton, Vice President; Chris Daum, Treasurer; and Patrick Judge, Secretary. The motion passed unanimously.

License Plate Update: Both Kathi Montgomery and Matt Elsaesser have application forms. Matt proposed going in together with SAVE and maybe some other groups, with a "Sustainable Energy for Montana" or "Renew Montana" type message. Matt offered to report back with more information.

Keynote Speaker -- Peggy Beltrone: Peggy Beltrone has been a Cascade County Commissioner for 12 years. She spoke about the benefits of renewable energy to Cascade County, and the broader region. She is involved in numerous committees on the state and national level to advance wind development. She described the Horseshoe Bend project (6 x 1.5 MW GE Wind Turbines near the Great Falls airport). This project supplies power to United Materials, which is a gravel aggregate plant that formerly used a 3 MW diesel generator. It has 125 employees and is the 29th largest taxpayer in the county. She also spoke about another 54 MW project that is coming together in the county. Ms. Beltrone also addressed the issue of transmission, and came in as a supporter of the Montana-Alberta Tie Line project -- a proposed 230 kV line, 190 mile, \$90 million merchant line that would connect Great Falls with Lethbridge. According to Ms. Beltrone, the result of the "open season" bidding process was 600 MW worth of Montana wind projects (in Glacier, Toole, and possibly Cascade Counties). The developers (the line is owned by Canadian public power executives) are considering a follow-up 500 kV line. Ms. Beltrone also spoke of the "25 x 25" project, which has the goal of the US obtaining 25% of its energy from clean, domestic, renewable sources by the year 2525. For more information, see: www.25x25.org

NCAT Sustainability FEST Report: Chris Borton, Dave Ryan, and others reported that NCAT celebrated its 30th anniversary with a Sustainability FEST in Butte that was a tremendous success, with approximately 1000 participants. The event was held on Thursday, August 24th, and will be the first of many. In addition to the displays, vendors, and presentations, the belly dancers were a big hit, "especially the one in blue."

New MREA Brochures: Chris Borton passed around the box of 500 new brochures. The crowd seemed quite pleased with the quality.

Net Metering Monitoring: Chris Borton raised the issue of swapping out electric meters in NorthWestern's service territory so the utility and the customer-generators would have a better idea of the actual production of the net-metered renewable energy systems. Advanced digital meters would also allow for time-of-use (TOU) electricity pricing. Patrick Judge noted that NWE is conducting a pilot program on TOU in the Missoula area. Dave Ryan noted that Montana law already contemplates advanced meters. Subsequent emails clarified the current authority of the PSC to require such meters, if certain determinations are made. Patrick Judge agreed to research whether other states require such meters. Logan Bryce pointed out that many co-ops already require that type of meter (but that he also pays a \$8/month interconnection fee with Sun River). Several people pointed out that there is nothing preventing anyone from choosing such a meter at any time, and that installers might want to advise their clients to do so. It would be good to work with NWE to see if they can change their billing practices to reflect "banked" credits. There also needs to be some resolution with the demand meter problem Dirk Ellis and others have commented on. Dave Ryan spoke of the differences between "turtles and erts"

MREA Trailer Update: Chris Borton announced that he is using the MREA trailer for five of NWE's weatherization events. NWE had given MREA a USB grant to help support the trailer, with the understanding that MREA would cooperate with the company in this type of educational event. Chris Borton pointed out that it would be nice if the cart could be removed from the trailer, but that it currently does not have a ramp. Dave Ryan reminded everyone that the cart weighs approximately 800 pounds and is extremely dangerous to roll out of the trailer. There was talk of replacing the cart's castor wheels with fixed wheels, and getting a new ramp / winch system. Dave Ryan moved that MREA proceed with trailer improvements not to exceed \$500. Lu Marie Strickland seconded the motion, and it passed unanimously. Independent Power Systems' offered to help with the improvements. Chris Borton used the cart to inadvertently prove that a LED flashlight could run continuously for a full week! The secretary believes he heard Chris also report that the cart's incandescent bulb was replaced by a CFL donated by Solar Plexus. Logan Bryce offered to possibly donate other parts, should the trailer need them in the future.

Website Update: Chris Borton pointed out that the website remains miserably out-of-date. Patrick Judge promised to work on it. Kathy Swikowsky maintains it, and her email is kathys@ncat.org

Bioneers Conference: MREA will have a booth / trailer. Chris Borton, Steve Aagenes, the IPS team, and others will all be there.

Other Reports: Chris Borton passed around the new NWE "Field Guide to PV" that was produced by Saturn Resources. Logan Bryce reported on the Small Wind Tax Credit effort. He and Jenni have been actively advocating this legislation in DC. The idea is to replicate the small solar tax credit that was included in the Energy Policy Act of 2005. Logan felt the solar

credit would be reupped (as it is currently set to expire after 2007), and also felt optimistic about both the small wind credit and the extension of the wind energy Production Tax Credit. Currently, the solar credit is 30% (with a \$2000 cap on residential projects). In response to a question from Sean Micken, Patrick Judge described his view of potential energy legislation in the upcoming session in Montana. Pat promised to establish a "MREA" preference list once again, so interested members of MREA could track relevant bills.

Next Meeting Date: The next meeting will be held in Helena on Wednesday, January 10 at 12:30 pm -- unless rescheduled to accommodate legislative hearings.

Adjournment: The meeting was adjourned at 4:47 pm.

These Minutes were prepared by Patrick Judge, Secretary.

Addendum: Following the Board Meeting, Patrick Judge proposed membership in the NW Energy Coalition. Chris Borton argued for the full rate of \$200, and a majority of board members voted in favor. Dave Ryan signed a letter of interest to Sara Patton, NWECE Executive Director. NWECE approved the membership at its Board Meeting in Portland on December 1.

Board Members:

Dave Ryan - voted
Chris Borton - voted
Dirk Ellis - voted
Patrick Judge - voted
Steve Aagenes - voted
Kathi Montgomery - voted
Kathy Hadley - voted
Chris Daum
Mike Strickland

Members:

Logan & Jenni Brice - voted
Paul Farley - voted
Henry Dykema - voted
Corky Brittan - voted