

MMR ENERGY COMMITTEE MEETING MINUTES

Date: 25 Mar 08

Time: 2:00-3:00 pm

Location: IRP Conference Room

Agenda: MTC presentation
Mass Development Request
Energy Awareness Campaign
Daytime Lighting
Idling
Energy Audits
Organization Activities
Federal Wind Workshop (not discussed)

Attendees: See email attachment

1. Tyler Leeds from the Massachusetts Technology Collaborative (MTC) was the guest speaker at the Energy Committee Meeting. According to the MTC website (<http://www.mtpc.org/index.asp>), the MTC is “the state’s development agency for renewable energy and the innovation economy, which is responsible for one-quarter of all jobs in the state. MTC administers the John Adams Innovation Institute and the Renewable Energy Trust.” Tyler Leeds is the project manager for Green Building and Infrastructure and the Renewable Energy Trust. Tyler introduced MTC and discussed three of their programs as follows.

a. Commonwealth Solar - Commonwealth Solar provides rebates through a non-competitive application process for the installation of photovoltaic (PV) projects at residential, commercial, industrial, and public facilities. Non-residential projects are eligible for rebates for PV projects up to 500 kilowatts (kW) and residential projects are eligible for up to 5 kW. The applicant (and project site) must be a customer of a Massachusetts investor-owned electric utility, such as NSTAR.

b. Large Onsite Renewables Initiative (LORI) – MTC awards grants for feasibility studies and design & construction projects of qualifying renewable energy systems greater than 10 kW. A project is eligible for funding if it is located at a commercial, industrial, institutional, or public site, and if the electric system will be served by a Massachusetts investor-owned electric utility company. Qualifying renewable energy technologies include: wind energy, fuel cells, hydroelectric, landfill gas, and advanced biomass power conversion technologies.

Feasibility Grants are capped at \$40,000 with an applicant cost share of 15%. Design & Construction Grants are calculated based on an Incentive Matrix (see MTC

website). Design grants are capped at the lesser of \$125,000 or 75% of actual cost, and construction grants are capped at the lesser of \$275,000 or 75% of actual costs.

Applications for LORI are due on a biannual basis (usually in August and February). This year, the award deadline is 21 Aug 08. Awards are granted based on a competitive selection process. Prior to submitting a LORI application, each applicant must secure a consulting team.

Rose Forbes discussed AFCEE's experience with the MTC LORI grant process. AFCEE applied and received a \$300,000 grant toward construction of a large-scale (1.5 MW) wind turbine. AFCEE, along with its contractor CH2M Hill, prepared the grant. Rose has provided copies of the grant application to PAVE PAWS, Camp Edwards, and the USCG.

Bob Cannon mentioned the USCG is working with DOE to install a meteorological (met) tower to begin planning for a wind turbine. He discussed the possibility of recommending a Categorical Exclusion for his project.

A question was asked about using third party ownership for projects such as leasing roof space for a solar (PV) array. Because the MMR is a federal facility and has gate security, it might be more difficult to lease property to private parties. The Energy Committee may want to discuss this further.

c. Small Renewables Initiative (SRI) – MTC provides rebates up to \$50,000 through a non-competitive application process for the installation of wind and small hydroelectric projects that are up to 10 kilowatts and located at residential, commercial, industrial, institutional, and public facilities. The applicant (and project site) must be a customer of a Massachusetts investor-owned electric distribution utility.

2. Rose Forbes asked Tyler if there are grants available to assist with a Public Awareness Initiative/Energy Conservation Campaign for the MMR. Tyler stated there are grants available, however he was unsure of the requirements and suggested consulting the MTC website.

3. The Energy Committee thanked Tyler for the information. He stayed during the rest of the Committee's discussions which included the following:

a. Energy Awareness Campaign. Elizabeth Kirkpatrick mentioned some ideas MMR could pursue such as a message on the electronic ad billboards, producing flyers with energy messages, and contacting the schools. Bob Cannon mentioned that Gerry Cogliano will be adding information pertaining to energy conservation in the USCG's "Welcome Aboard" newsletter. Energy Committee Members are encouraged to contact Elizabeth with other suggestions (see attached distribution list for Elizabeth's contact info).

b. No Idling Policies – Rose Forbes mentioned their contractor CH2M Hill has a “no-idling” policy whereby personnel are required to turn off their vehicles rather than allow them to idle for long periods. Rose wanted to know if other organizations had a similar policy. No one stated they had a policy in effect. While a policy might not be needed, awareness could be increased. Paul Nixon thought it would be interesting to evaluate the fuel used during idling and savings associated with shutting vehicles down.

Paul researched the topic of idling and prepared a summary of his findings. The summary is included in the email with the Energy Committee minutes. Paul found that a variety of experts recommend that idling vehicles should be turned off. The "break even point" that they quote seems to vary from 10 seconds to about 3 minutes; however, most point out that idling vehicles for any length of time is wasteful and harmful to the environment and in most cases it is completely unnecessary. Paul acknowledges there may be some examples where it makes sense to idle vehicles, for example when personnel are working outdoors in extreme cold weather for extended periods of time and no other heated shelter is available. He suggests that as an initial recommendation, the Energy Committee should present these findings to the various commands at MMR with the recommendation that they consider creating policy or other direction to their staff to not allow their vehicles to idle except in extreme cases.

c. Day Time Lighting. It was noted that there are several lights that remain on during the day (i.e. base fire department building and some street lights). Energy Committee members are encouraged to let the 102 IW/CES know about these cases by contacting George (968-4247) or Jeff (968-4248) at the work control desk.

d. Energy Usage at MMR. Rose Forbes noted that Mr. Carter Hunt from MassDevelopment requested energy usage data for all the organizations on MMR. Specifically he wanted to know how much electricity (kW-hr) the base uses over a one year period. Greg Nancarrow from 102 IW/CES will be coordinating the request and compiling the information from all the agencies (see attached distribution list for Greg’s contact info).

e. DOE Wind Workshop at MMR. The Department of Energy (DOE) National Renewable Energy Lab will be hosting a Wind Workshop for federal agencies at MMR. They have tentatively scheduled the workshop for 20-22 May 08. Please contact Rose Forbes or Paul Nixon if you are interested in attending (see attached distribution list for contact info). Rose or Paul will be emailing out the meeting agenda to the Energy Committee when it is available.

4. Update on MMR Organization’s activities:

a. IAGWSP - Paul Nixon and the IAGSWP continue to work toward the installation of several 100 kW – 250 kW wind turbines to help offset the power used by their groundwater pump and treat systems. In addition, Paul has been evaluating their electric bills and noting circumstances whereby some buildings might be using excessive energy or the utility might be overbilling their program.

b. USDA – Ken Casson scheduled an energy audit through Cape Light Compact (CLC). Ken reported via an email that Rise Engineering (CLC's contractor) recommended energy improvements to their Building 1398 that can save \$8,045 annually (44,697 kWh annually) by updating their lighting and control systems. The cost of the upgrades is \$26,109, funded by the CLC. Ken signed up for the building upgrades. Rise Engineering also put Ken in touch with a firm that is coming in to look at their walk in chambers to see if they could cut their energy use further. In addition, Ken noted that Rise Engineering may be able to help technically and financially through CLC with an energy efficient solution to their current problematic HVAC system.

c. E&RC – Brian Nickerson is planning on requesting an energy audit through CLC. In addition, E&RC will be presenting the Draft MMR Renewable Energy Policy to the JOG in the next few weeks.

d. AFCEE – Rose Forbes continues to work on the AFCEE wind turbine project. Foundation construction is scheduled to begin in May 2008. The turbine tower is expected in November 2009. The nacelle and blades are expected end of summer 2009. Installation expected to be complete in fall 2009. In addition, Rose is working on a contract with NSTAR's Load Response Program whereby AFCEE will be paid by NSTAR to temporarily shut down the treatment plants during high load periods. Rose also scheduled an energy audit for Bldg 322 through CLC. Rise Engineering recommended several energy savings improvements (i.e. replacing inefficient lighting, installing occupancy sensors, upgrading exit lighting with LED technology, etc) and estimates a cost savings of \$820 annually.

e. PAVE PAWS – Steve Mellin is coordinating the evaluation of wind turbine technology for PAVE PAWS. He also scheduled an energy audit through CLC. The audit/site visit was performed on 24 Jan 08 and recommendations were provided on 27 Mar 08. Recommendations include replacing numerous obsolete lighting systems, installing occupancy sensors, installing variable frequency drives, replacing existing motors with NEMA Premium Efficiency motors, and to conduct a study of the chillers. Steve is also considering the NSTAR Load Response Program.

f. Senior Environmental Corps – John Brazier assisted AFCEE with an analyses of Bldg 322 using the Energy Star Portfolio Manager (see last month's meeting minutes for more information). Based on electricity and gas usage for 12 months beginning 1 Oct. 2006, John found the building's rating only 7%, that is, it is better than only 7% of comparably sized and utilized buildings in the U.S. The next step is to conduct an energy audit and make improvements and then rerun the analyses to see if the building's rating increases. John was impressed with the usability and methodology of the EnergyStar program. He has offered to extend its use to other buildings or groups of buildings. If other organizations are interested in asking John to conduct the analyses on buildings, please contact him directly (see attached distribution list for John's contact info).

g. Army National Guard – Major Layton is scheduling energy audits through CLC.

5. Next meeting: The next meeting will be held toward the end of June 2008 (date and location to be determined). Please feel free to email me agenda items you would like to discuss. One potential item to be presented is the result of John Brazier's Energy Star assessment of Bldg 322.

6. Remember to schedule your energy audits if you have not done it yet. Contact Cape Light Compact at <http://www.capelight-compact.org/> or call 1-800-797-6699.

7. Please contact Rose Forbes at 508-968-4670 x 5613 or email rose.forbes@brooks.af.mil if you have any questions, comments, or suggestions about the minutes or the MMR Energy Committee.