

## MMR ENERGY COMMITTEE MEETING MINUTES

Date: 29 Jan 08

Time: 2:00-3:30 pm

Location: IRP Conference Room

Agenda: 102 FW/CES electrical grid and billing/utility tracking spreadsheet

Attendees: See email attachment

1. Bob Cannon, Committee Chair, was unable to attend the meeting. Rose Forbes chaired the Committee in Bob's absence.
2. The purpose of this meeting was to educate the committee members on the 102 FW/CES electrical grid and billing procedures. In addition, Paul Nixon provided an overview of a simple, yet elegant, spreadsheet he created to track energy usage.
3. The organizations provided an update on their energy-related projects.
  - a. AFCEE (Air Force cleanup program) and the IAGWSP (Army cleanup program) had conducted an energy audit through Cape Light Compact over two years ago and have implemented energy savings initiatives (i.e. changed out inefficient lighting, installed occupancy sensors, LED exit lighting, and programmable thermostats).
  - b. In addition AFCEE has awarded a contract to install a 1.5 MW wind turbine. The IAGWSP is evaluating the installation of several medium scale wind turbines (50-200 kw size). Paul Nixon announced the IAGWSP had scheduled a tour to see the Army wind turbine locations and invited the Energy Committee members to participate. Those interested should meet at the Visitor's Center at 0930 on Thursday, 31 Jan 08.
  - c. PAVE PAWS conducted an energy audit last week with Cape Light Compact and is awaiting the report. PAVE PAWS is also interested in wind turbine technology.
  - d. The USDA has scheduled an energy audit and noted there is a wait of eight to ten weeks for the appointment.
  - e. The USCG noted they would call Cape Light Compact and schedule an energy audit.
4. Rose Forbes welcomed the representatives from the 102 FW Civil Engineering Squadron (CES). She explained the Energy Committee members were interested in finding out more about the base electrical grid structure and the billing procedures. Guests from the 102 CES included Mr. Bill Stirling (Deputy Base Civil Engineer), Mr.

Anthony Fizzuoglio (CE Electrical Engineer), Mr. Greg Nancarrow (CE Budget Analyst) and Mr. Jerry Demeusy (CE Budget Analyst).

5. Tony Fizzuoglio handed out a map showing the Otis ANG electrical distribution system. The green and blue lines represent USCG feeder lines, red lines represent Army feeders, and the other colors represent the 102 FW feeders. Tony explained master metering and circuiting associated with the distribution system. Greg Nancarrow provided two handouts (Atch1): (1) Energy Delivery, 2008-2009. Time-of-Use Rate and (2) NStar Electric Load Analysis from 10/2005 to date. Discussion centered around energy savings if loads could be decreased during peak demand charge timeframes. Tony noted the peak timeframes change from summer to winter. Generally from March to November, the peak demand charge is 0.023583/KWH from 9 am to 6 pm. From November to March, the peak demand charge is 0.023583/KWH from 4 pm to 9 pm.

6. Rose Forbes asked if renewable energy and conservation charges are applied to the base electric bills as they are for the NSTAR bills. Tony and Greg confirmed that they are.

7. Greg Nancarrow also handed out a listing of recommended energy conservation measures (Atch 2). He mentioned that new electric meters are being installed. The new meters will provide quick, accurate readings and enable electronic billing. CE noted that the owners of a new building, or a retrofit, will be responsible for the meter upgrades, after which CE would take over responsibility.

8. In addition to saving energy and taxpayer's dollars, energy conservation is critical for the base due to a problem with the base transformers. As Bill Stirling explained, the base lost one of its two 5000 kVA transformers during a storm last April. CE would like to either replace the one 5000 kVA transformer or upgrade it; however, budget issues between all the base organizations have not been resolved. Bill mentioned there have been times in the summer when the base load on the transformer has been at its maximum. Additional loads for new projects may also contribute to transformer overload. Bill explained if the base loses the second 5000 kVA transformer, which is the same year and model as the failed transformer, there will be no power, except where there are backup generators. The delivery time for a new transformer ranges from 10 months to one year.

9. Paul Nixon then presented an excel-based program he developed to track energy usage at facilities (Atch 3). Using the spreadsheet, he showed how he was able to input electric use and, through graphing the data, quickly compare energy used from one building to another and identify which buildings used the most energy. This program can also be used to show the impacts of energy conservation measures. Please call Paul Nixon at 508-968-5620 if you have any questions.

10. Elizabeth Kirkpatrick mentioned the idea of an Energy Conservation Campaign for the base. The committee members agreed that this is a good idea. We will add this topic to the next meeting agenda for more discussion.

11. Remember to schedule your energy audit with Cape Light Compact if you haven't already done it. It's easy...either call 1-800-797-6699 or visit the following web address: <http://www.capelightcompact.org>

12. Next meeting: The next meeting will be held toward the end of February 2008, likely on 26 Feb 08 at 2 pm in the IRP conference room. NSTAR will be invited to present their program, electrical distribution, rebates, energy conservation programs, rate structures, billing, etc. Bring a copy of your NSTAR bill with you. The Energy Conservation Campaign will also be on the agenda. Please also be prepared to provide a quick update on your organization's energy conservation activities.

13. I would like to have the Massachusetts Technology Collaborative (MTC) present at the following meeting in March 2008. The MTC is responsible for many of the renewable energy projects in Massachusetts. If you look on your NSTAR electric bills, you will see a line item for "energy conservation". This is the funding that goes to MTC to provide grants for projects like wind turbines, photovoltaic installations, community education, etc.

14. Please contact Rose Forbes at 508-968-4670 x 5613 or email [rose.forbes@brooks.af.mil](mailto:rose.forbes@brooks.af.mil) if you have any questions, comments, or suggestions.