

MMR ENERGY COMMITTEE MEETING MINUTES

Date: 24 Feb 2009

Time: 2:00-3:30 pm

Location: Bldg 322, East Inner Road

Agenda:

- Gloria Spire Solar Presentation/Discussion
- Cape Light Compact Presentation/Discussion
- EnerNOC Presentation/Discussion

Attendees: See attached distribution list

1. Rose Forbes (AFCEE) opened the meeting by welcoming the attendees and providing an overview of the agenda. She distributed a copy of the organization update sheet and asked the attendees to update it if applicable.
2. Mark Goodreau and George Smith from Gloria Spire Solar, located in Bedford MA, provided company literature and explained Gloria Spire specializes in large, commercial solar projects. They indicated there are larger solar markets in Europe and Asia but that the U.S. is catching up. The Federal and MA state tax credits, along with MA Commonwealth Solar rebates, are making solar projects more affordable.

Mark and George explained the existing photovoltaic technology uses crystalline silicone but that thin film technology and solar collectors/concentrators are becoming more popular. Thin film tends to have a lower cost but also a lower energy efficiency. Solar collectors/concentrators require a tracking system and are more expensive. The cost of solar technology is approximately \$6/watt installed and typically has a capacity factor in the higher teens. The capacity factor of wind energy technology is typically in the mid to high 20%.

A few Energy Committee members asked about the possibility of using solar in base housing or integrated into roof top energy systems. Committee members should contact George Smith directly with specific questions. George's contact information is provided in the attached meeting sign-in sheet.

3. John Burns, Vin Graziano, and Margaret Song from Cape Light Compact (CLC) attended the meeting to discuss potential energy conservation activities at MMR. John Burns provided an overview of the CLC to the Energy Committee and noted that the CLC is funded through an energy conservation budget which is indicated on electric bills as a line item of \$0.0025/kWh. John said the CLC is awaiting approval of the budget before proceeding with additional conservation work. John also requested that MMR projects try to take advantage of available federal funding before using the CLC funds.

Vin Graziano works for RISE Engineering, a subcontractor to CLC. He helps identify projects for CLC, conducts energy audits, and implements the conservation activities. Vin mentioned available training opportunities such as the Building Operator Certification Courses and LEED training.

Margaret Song discussed advances in lighting technology and showed an example LED light. She mentioned the LEDs work especially well for directing focused light, such as in a street light. Margaret mentioned that the MA Maritime Academy in Buzzards Bay has installed LED streetlights. She also mentioned that DOE has a grant program that provides funding for manufacturers to work with energy efficiency organizations such as CLC for certain lighting applications.

Energy Committee members interested in scheduling energy audits, signing up for training courses, or asking about LED lighting applications should contact John Burns. John's information is provided in the attached meeting sign-in sheet.

4. James Berry and Eric Graham from ENERNOC attended the meeting to discuss energy management, including energy curtailment (i.e. demand response). They walked through a presentation that covered their company's locations, capabilities, and current customers, along with the details of the demand response program including why it is necessary, how it is implemented, what the guidelines are, and example projects. Energy Committee members are encouraged to visit ENERNOC's facility in Boston or to contact them directly with questions. See sign-in sheet for contact information.
5. Next meeting: The next energy committee meeting will be held the second or third week of April at a location to be determine. Rose will send out a meeting announcement. Potential

agenda items include a presentation on power supply and distribution and an update on wind/solar initiatives at MMR.

6. 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, next meeting's agenda or the MMR Energy Committee.