

Waltham Energy Action Committee

Monday 8 AM, June 28, 2010

Trustees Room, Waltham Public Library, 735 Main St.

Minutes

Members Present:

Guy Compagnone, Rick Ochse, Kathy Randel, Leo Keightley, Andy Greene, Eileen Zubrowski, Melissa Downs

Others Present:

Eric Olson (Environmental studies, Brandeis)

Steve Fugarazzo (Raytheon)

Richard Farrell (Facilities Manager, Raytheon Global Headquarters, Waltham)

Special meeting with Steve Fugarazzo (Manager Facilities Engineering & Enterprise Energy Team Leader, Integrated Defense Systems (IDS), Raytheon) to discuss outreach.

Note:

The following minutes are arranged by topic, and entries are not necessarily chronological.

Introductions:

All members and guests introduced themselves

Differences - Corporation / City:

Leo asked Steve what differences he sees in addressing energy conservation & greenhouse emissions in a City, the WEA problem, and in a large corporation, Steve's charge.

- Steve started with 3 definitions of "scope" through which he has approached the corporation problem:
 - Scope 1 .. Direct Fire: Burning fuel on site (Oil, Natural Gas, certain chemical/material processes)
 - scope 2 .. Indirect: Fuel burned elsewhere to provide a product used on site (electricity is the most obvious example)
 - scope 3 .. Result of Business: Fuel burned in the course of doing business, but not directly by the business itself (two examples are gasoline and diesel fuels burned for employee commuting and truck deliveries)
- One way Steve saw a City as different is how one might go about encouraging the population to change without having people feel the City is too controlling.
- Steve said this is one thing he was at the meeting to learn.
- Louisville KY is an example of success of a city approach that he has made note of and suggested we look at.

There are significant municipal and residential accomplishments

Louisville's mayor is the first to receive credit for the scale and scope of the City's

accomplishments.

Waltham Specifics:

- Andy reviewed the WEA committee's origins and charge.
- Rick cited the photo Voltaic installation planned for the Municipal Building at 165 Lexington Street as example of how things can stall and an opportunity for this group.
- Andy discussed details of some technical, financing, and political realities of undertaking such a project in Waltham.
- Guy reviewed some technical possibilities and issues in Waltham, adding that there is a lot involved here .. more than we thought.

Steve: Are there any WEA subcommittees yet? Steve suggested a few possibilities:

(note: not mentioned by WEA is the subcommittee working with Ralph on the Municipal Bldg. PV)

- A pie chart or notion of what can be done immediately to create "wow."
 - "Nervana:" What does it look like? What are the "spokes in the wheel?"
 - Strategic and tactical plans without constraints
 - Assessment of "now"
 - Focus on particular municipal energy hogs? .. like HVAC, vehicular .. get that going.
 - Come back to data - maybe the overall city/community energy use (business and residential): What's the biggest bang there?
- PV:
 - Raytheon installed pretty well optimized system .. 20 year life in system .. the roof can be replaced without removing PV.
 - People not necessarily interested in simply saving energy.
 - People want to know: "What's in it for me?"
 - Borrego is a good outfit for a city installation.
 - Look for an alternative energy business that might want to do residential deal.
 - Leo asked if the total environmental PV cost, including equipment fabrication is included in claims of environmental gain. The answer seems to be yes (affirmed by further research).
 - Steve, also consider solar HW.
 - There was discussion of tube collector structures for PV as well as HW. These systems appear to have advantages.

Catalysts:

- Eric mentioned, in getting things like PV going, that Newton (**Green Decade?**) has tours and this gets people to follow on .. gets the ball rolling. He pointed out that the biggest \$ savings are in efficiency (insulation and reduction of energy use).
- Andy mentioned the Waltham Land Trust Earth Day event and also some of our efforts along these lines (encouraging people to contact MASSAVE, etc.). Andy feels this has been very effective, but has been limited to date.

Public Outreach:

Eileen asked in Steve had any public outreach suggestions for residents and city employees. Steve had the following examples:

- "Energy Champions"

These people would be experts and pass ideas along to peers. The approach is not "executive."

- "Energy Citizens"
 - How to get everyone on the block in this is Energy Citizens.
 - Energy Quiz: web based .. people get an email from the Energy Champions advocating participation in the Energy Quiz. People get a pin and badge for successful quiz completion. Energy Star has recognized the program as a great way to raise awareness.
 - For Steve, at Raytheon, the goal was 15% participation. Actual participation in the 1st year was 25%, this year's goal is 50%.
 - Every year is new year so everyone has to re-take the test.
 - Steve suggested using the school system for education. His children don't turn lights off, but do recycle.
 - Kathy asked if there any measurable change from this program?
Steve said it is not all that measurable because things (people and facility uses) change a lot. There are certain examples where Energy Citizens are up and energy use is down. But in other cases there is a change such as: a third shift is added, which increases load. They do look into areas when this happens and ask what has happened.

Discussion:

- Show what people can gain in \$. Show what people and businesses can do.
Penny Connor .. Enstar, 781 441 8526 .. is involved in outreach. We should contact her.
- Melisa: has Steve tried competition between groups?
Steve said they did challenge 2 labs and they got a 10% improvement. So they initiated competitions (including competitions for energy citizen involvement). They also have events on Earth day, and Energy Awareness Month (energy star appliances, cars, etc.) .. giveaways ..
- Melissa: Can we use Raytheon as an example to put before other businesses and say Raytheon has done this and you can too?
Leo suggested mentioning Raytheon successes on our web site possibly with a pointer to a related Raytheon web site. Steve said something could be worked out.
- Steve suggested hooking up with Science and Environmental/Energy-savings groups and clubs (specifically those in Waltham schools and Universities).
- Bring in speakers at meetings: Chamber of Commerce, Town Council or Committee meetings of some kind. There are plenty of capable govt. people who can speak.
- Think strategically, act tactically. If you bring someone in, what's next.
If comments are solicited, be sure to respond.
- Richard: Office savings: Lights, printers, computers. Steve: go after "plug load."

Misc:

- Andy ; Does Raytheon use Energy efficiency Savings Companies?
Steve: Raytheon tends to do things with their own resources. Also Raytheon doesn't use methodologies until they are shown to be effective. Possibly Waltham can participate in load shedding methods when there are overloads. There are management companies that will monitor & manage your loads. Programs can be implemented to use people living and working in a location (city employees, residents, business owners and employees, etc.) to identify opportunities for energy savings: lights left on, for example.

- Andy ; In looking at buildings can Raytheon help us analyze? Otherwise we have to contract.
Steve interested: but not sure about consultants. ESCO (business model) might be a very good approach .. service company for profit will want to make things work (pay linked to savings). Also, it may be worth it to have an "energy zar."
- Steve: In the future, all new programs will have an energy aspect.
- Andy: How will things like stretch code be seen as resident of business.
Steve: It has to be shown to be and presented as a win for everyone. It has to be shown to be a competitive advantage to go green. People need to be educated. We don't want it to be viewed as Waltham "pushing down on them."

Setting goals

- Climate Leaders program (Raytheon participates in this EPA program)
Raytheon's 1st plan was to reduce energy use by 20% (the fed. goal was (18%).
EPA said no .. industry should be a leader. In the end Raytheon's goal was set at 30%.
Raytheon put together a team. They achieved 38% reduction in "Scope 1" the 1st year.
To stay in program a new goal is set. The next year was set for an additional 10%.

Heat exchanger:

Leo asked about the use of counter flow heat exchangers to reduce fresh air heating and cooling loads. This doesn't seem to be on anyone's radar.

Infra.

The meeting adjourned at 10:00 AM.