

**Cape Elizabeth Alternative Energy Committee  
Minutes: April 28, 2009**

**Present:** Wyman Briggs, Alan Lishness, Bill Slack, David Whitten, Ted Hawkes, Sarah Lennon, Kathy Ray

**Absent:** Ernie McVane

**Guests:** Rick Fontana

**I. Approval of Meeting Minutes**

- February meeting minutes were approved.
- March meeting minutes were approved.

**II. Discussion of Audit by CM3**

- The list of energy conservation measures proposed by CM3 was reviewed. See below.

| Building         | Scope                               | Cost         | Savings   | Effic<br>Maine | Simple<br>Payback |
|------------------|-------------------------------------|--------------|-----------|----------------|-------------------|
| MS / Pond Cove   | Control Upgrades & Recommissioning  | \$ 263,055   | \$ 18,166 | \$ 8,172       | 14.03             |
|                  | Insulation 1930'3 Bldg              | \$ 6,188     | \$ 355    |                | 17.43             |
| HS               | Control Upgrades & Recommissioning  | \$ 142,420   | \$ 15,454 | \$ 3,902       | 8.96              |
|                  | Boiler Replacement & Biomass Boiler | \$ 1,033,500 | \$ 88,733 |                | 11.65             |
|                  | Pool Unit replacement               | \$ 184,600   | \$ 3,948  |                | 46.76             |
|                  | Insulation                          | \$ 55,372    | \$ 8,666  |                | 6.39              |
| Public Works     | Control Upgrades & Recommissioning  | \$ 8,080     | \$ 1,125  |                | 7.18              |
|                  | Pump Redundancy                     | \$ 2,340     |           |                |                   |
|                  | Boiler Controllers                  | \$ 5,950     | \$ 1,132  |                | 5.26              |
|                  | Insulation                          | \$ 5,247     | \$ 614    |                | 8.55              |
| Community Center | Control Upgrades & Recommissioning  | \$ 2,340     |           |                |                   |
| Police Station   | Insulation                          | \$ 818       | \$ 85     |                | 9.62              |
|                  | Economizer Repair                   | \$ 1,624     |           |                |                   |
|                  | Boiler Controllers                  | \$ 4,950     | \$ 1,444  |                | 3.43              |
| Transfer Station | Install Split System                | \$ 6,845     | \$ 778    |                | 8.80              |

|                     |  |                    |                   |                 |              |
|---------------------|--|--------------------|-------------------|-----------------|--------------|
| Town Hall           | Control Upgrades & Recommissioning       | \$ 16,994          | \$ 1,900          |                 | 8.94         |
|                     | Boiler Controller                        | \$ 3,990           | \$ 571            |                 | 6.99         |
|                     | Insulation                               | \$ 3,525           | \$ 415            |                 | 8.49         |
|                     | Dom Hot Water Replacement                | \$ 5,810           | \$ 629            |                 | 9.24         |
| Library             | Boiler Replacement                       | \$ 15,360          | \$ 2,993          |                 | 5.13         |
|                     | Boiler Controllers                       | \$ 5,340           | \$ 900            |                 | 5.93         |
|                     | DHW Replacement                          | \$ 6,810           | \$ 708            |                 | 9.62         |
|                     | Control Upgrades & Recommissioning       | \$ 4,560           | \$ 550            |                 | 8.29         |
| Light All Buildings |  | \$ 733,074         | \$ 113,719        | \$ 18,710       | 6.28         |
|                     | Bonds / Permits/ Contingency Engineering | \$ 145,000         |                   |                 |              |
| <b>Totals</b>       |  | <b>\$2,663,792</b> | <b>\$ 262,885</b> | <b>\$30,784</b> | <b>10.02</b> |

- Team observations included:

- The largest impact for ECM's will be at the high school
- The in kind pool unit replacement has a poor economic payback and should be removed from consideration. Most were in agreement that a solar thermal application should be pursued for the pool unit, considering the stimulus money that may be available to help finance. **Dave to contact Phil Coupe at Revision Energy to pursue a detail proposal for a solar thermal application for the pool.**
- Some of the proposed lighting changes have already been initiated by Ernie.
- The high school is 40 years old and some questioned whether it would be worth investing in efficiency improvements if the school was to be replaced in the near term with a net-zero energy building. Kathy Ray cautioned that it is highly unlikely that there could be funding available to replace the high school in the near term, especially in during this current economic downturn. Dave said that he is aware of net zero schools that are currently in the development process. Although beyond the energy committee scope to estimate cost of a new school building, we can estimate the NPV of zero energy cost as a starting point for discussion. **Bill to calculate NPV of zero energy cost at high school for discussion purposes.**
- Most were in agreement that high school boilers should be replaced as they are oversized, inefficient and at the end of their useful life. Replacement with biomass should be considered, unless natural gas can be brought to the school

economically. Rick suggested that we look at some variations to what was proposed by CM3, such as keeping one of the existing boilers in service for standby only. **Bill to develop several variations to boiler replacement option for further review and discussion.**

- Bill had tried to contact provided by Peter Ingraham at Unitil regarding gas line extension with no success. **It was suggested that we task Ernie to pursue gas line extension question with Unitil so we can get real information to work with.**
- Most were in agreement that ECM's with payback 10 years or less should be proceeded with.
- Dave was concerned that the audit did not focus enough on building envelope solutions. Dave believes that a better solution to energy savings would be to invest more in insulation and air sealing than the multiple "mechanical" solutions that were proposed by CM3. **Since there has not been an economic basis developed for a "building envelope" strategy to make any decisions on, Dave will request to CM3 through Ernie, that an alternative analysis be performed to consider "building envelope" solutions versus the solutions proposed by CM3**

### III. Wind Measurement Progress

Wyman re-capped on-going activities related to wind turbine development.

- Wyman has submitted a draft agreement for access rights to Herb Strouts cell towers for anemometer to Town manager for approval. **Bill to check on status of agreement for access rights to Herb Strouts cell towers for wind measurement equipment with Town Manager.**
- Wyman has submitted a proposal to Town Manager from Jonathon Markey to install and analyze two anemometers on the cell towers. **Bill to check on review and approval status with Town Manager of proposal from Jonathon Markey to install and analyze two anemometers on the cell towers.**

### IV. Council Workshop

Council workshop is scheduled for  
May 14 at 7:30

**Agenda is:**

Alternative Energy Committee Report  
Energy Audit

Request from Cool Cape Regarding Mayors' Climate Protection Resolution

### VI. Action Items/Schedule for Next Meeting

- **Dave to contact Phil Coupe at Revision Energy to pursue a detail proposal for a solar thermal application for the pool.**
- **Bill to calculate NPV of zero energy cost at high school for discussion purposes.**
- **It was suggested that we task Ernie to pursue gas line extension question with Unitil so we can get real information to work with.**
- **Since there has not been an economic basis developed for a "building envelope" strategy to make any decisions on, Dave will request to CM3 through Ernie, that**

- an alternative analysis be performed to consider “building envelope” solutions versus the solutions proposed by CM3**
- **Bill to check on status of agreement for access rights to Herb Strouts cell towers for wind measurement equipment with Town Manager.**
  - **Bill to check on review and approval status with Town Manager of proposal from Jonathon Markey to install and analyze two anemometers on the cell towers.**
  - **Next Meeting: Council workshop is scheduled for May 14 at 7:30**