

Cape Elizabeth Alternative Energy Committee
Minutes: October 28, 2009

Present: Wyman Briggs, Ted Hawkes, Bill Slack, Ernie McVane

Absent: Dave Whitten, Alan Lishness, Sarah Lennon, Kathy Ray

Guests: Dave Clay, Rick Fontana, Joan Daly, Rebecca Lambert, Ben Lake

1. Approval of September Meeting Minutes

September meeting minutes approved

2. GPCOG ICLEI project update (Rebecca Lambert, Ben Lake)

Rebecca Lambert and Ben Lake from GPCOG attended meeting. Rebecca and Ben will be taking over the ICLEI modeling to develop a greenhouse gas baseline report for Cape Elizabeth. They have most recently completed a baseline report for Yarmouth and provided a copy at the meeting. Most of the data from the Town has already been submitted to GPCOG for the ICLEI modeling; however there will be additional requests for information. Ben Lake will communicate directly with Ernie with additional requests.

3. Energy Efficiency and Block Grants

a. Custom Grant (\$85,000)

Ernie has initiated the custom grant application based on completion of the lighting upgrades as substantially outlined in the CM3 report. The primary objective is to replace 32 watt T8 light fixtures with higher efficiency 25 watt T8 fixtures. Efficiency Maine does not cover this type of work in their standard lighting program (because the efficiency is greater than what they support in standard program) so it is considered acceptable for the grant application. Ernie has estimated that this work will cost \$159,056 and the town will committed to match \$60,000. The project is estimated to save 423,243 kwh's annually (\$73,177 annually). The custom grant is competitive and it is believed that this project will score well on the custom grant scoring:

50% for Energy and Economic Benefit

25% for Project feasibility

25% for Cost Effectiveness

The committee supports this approach to the custom application. Ernie provided an initial draft of the application and requested input from the committee on completing the application. The application due date has been extended from Nov 4 to Nov 18, but Ernie would like to have it completed by Nov 4.

b. Template Grant (\$10,000)

The committee also felt that it made sense to complete the forms for the template grant. Both grants can be applied for but only one will be awarded. In the event that the larger grant (custom grant) is not successful, we should at least apply for the template grant as a backstop. All template grants will be approved (unless a municipality is awarded the custom grant) Rebecca Lambert will provide fill in data she has provided to other communities for the template grant, Bill will customize for Cape Elizabeth.

4. Energy Conservation Measures List

Ernie has simplified and re-formatted the energy conservation measures list per September AEC meeting recommendations as shown below. After the grant application is completed, the

Committee will prioritize working with Ernie to finalize the recommendation from the list for submittal to town council.

								1 - 5 Years	P1	
								5 to 10	P2	
								10 +	P3	
Long Term Emerging Technologies									P4	
								Simple Pay		
Middle / Pc	Material Cost	Est. Labor	Est. Rebate	Total Cost	BTU's	KW	Years	Savings	Back	Priority
Insulation	\$ 6,188.00							\$ 355.00	17.43	
Lighting Middle School	\$ 30,400.00	\$ 15,255.00	0	\$ 45,655.00				\$ 8,530.00	5.3	P1
Lighting Pond Cove School	\$ 22,860.00	\$ 11,280.00	0	\$ 34,140.00				\$ 6,930.00	4.9	
Occupancy 28 Sensors VAVs'	\$ 3,000.00	\$ 7,500.00	0	\$ 10,500.00	140,000,000	13,500	15			
Occupancy Sensors Re-heat 84	\$ 12,000.00	\$ 13,000.00	0	\$ 25,000.00		18,000	15	\$ 2,700.00		
VFD Heat Recover Units	\$ 25,000.00	\$ 20,000.00	0	\$ 45,000.00	294,000,000	45,300	15			
AHU 1,2,7	\$ 6,000.00	\$ 6,000.00	0	\$ 12,000.00		16,000	15	\$ 2,400.00		
CO2-VFD Middle School GYM	\$ 2,500.00	\$ 4,000.00	0	\$ 6,500.00	128,000,000	4,300	15	\$ 2,600.00		
Controls	\$ 9,120.00	\$ 13,680.00		\$ 22,800.00						
Alternate Fuels										
Natural Gas										
Biomass / Pellets										
Renewable Energy										
Wind										
Solar										
High School	Cost	Est. Labor	Rebate	Total Cost				Savings Per Year	Simple Pay Back	Priority
Insulation	\$ 55,372.00	\$ -	0	\$ 55,372.00				\$ 8,666.00	6.39	P2
Lighting	\$ 38,232.00	\$ 23,025.00	0	\$ 61,257.00				\$ 16,399.00	3.17	
Class Rm UV / CO2 Oc Sensor	\$ 22,000.00	\$ 18,000.00	0	\$ 40,000.00	280000000	10000	15	\$ 6,500.00		
CO2-VFD Library HS.	\$ 2,500.00	\$ 1,500.00	0	\$ 4,000.00	187000000	6700	15			
CO2-VFD GYM	\$ 7,620.00	\$ 11,500.00	0	\$ 19,120.00	180000000	9000	15	\$ 3,200.00		
Controls	\$ 9,060.00	\$ 13,590.00	0	\$ 22,650.00						
Alternate Fuels										
Oil boilers replacement	\$ 335,000.00							\$ 17,000.00		
Natural Gas	\$ 1,000,000.00							\$ 122,184.00	8.19	P1
Biomass / Pellets /Boiler	\$ 700,000.00							\$ 119,054.00	8.6	P3
Geothermal HP System	\$4 to \$6 Million							\$ 131,000.00	11.65	P4
Renewable Energy										
Solar										
Wind										
Public Works	Cost	Est. Labor	Rebate	Total Cost				Savings Per Year	Simple Pay Back	Priority
Insulation	\$ 5,247.00	\$ -	0	\$ 5,275.00				\$ 614.00	8.55	P3
Alternate Fuels										
Geothermal HP System										
Renewable Energy										
Solar										
Wind										
Community Center	Cost	Est. Labor	Rebate	Total Cost				Savings Per Year	Simple Pay Back	Priority
Insulation										
Lighting	\$ 3,800.00	\$ 2,880.00	0	\$ 6,680.00				\$ 2,004.00	3.3	P1
Alternate Fuels										
Natural Gas										
Renewable Energy										
Solar										
Police Station	Cost	Est. Labor	Rebate	Total Cost				Savings Per Year	Simple Pay Back	Priority
Insulation	\$ 818.00							\$ 85.00	9.62	P1
Lighting										
Alternate Fuels										
Hybrid Vehicals										
Natural Gas										
Renewable Energy										

5. Natural Gas Pipeline

Ernie and Mike McGovern met with representatives from Unitil regarding the extension of the gas line into the town center. Unitil indicated that they would evaluate the gas line extension option for the Town after the first of the year. They will need to evaluate the cost of gas line, loads that will be served, capacity at tie-in point etc... to determine feasibility of this alternative.

6. Wind Measurement Progress

- a. Herb Strout Cell tower

Herb Strout installed a wind anemometer on his tower this past month with monitoring and recording equipment. Herb will provide data to the committee from the anemometer. Ernie is in discussion with Herb on arrangements to compensate Herb for this effort. The system has the capability to transmit the data to other computers as desired by the committee, for data collection and analysis. This can be to multiple locations, one of which may be the school, to provide opportunity for the students to get involved in real time data analysis and collection and evaluation of this wind energy alternative. The committee felt that it would be important to have Jonathon Markey (wind consultant) review the installation and data collection to make sure that we will get the necessary info at end of year to support our needs. Ernie will contact with Jonathon Markey directly.

b. Efficiency Maine Anemometer program.

It was decided to not apply for the Efficiency Maine anemometer program because we were much further along with the cell tower program.

7. Solar Thermal Proposal

The committee tabled this discussion in order to benefit from Dave Whitten's input at future meeting.

8. Wastewater Heat Exchanger

Rick Fontana is waiting to receive additional system data from Portland Water District to determine initial feasibility of this concept. Ernie thought Bob Malley may be able to help provide data if Rick hits a road block with Portland water district.

9. International Wood Fuels Proposal.

International Wood fuels has proposed the committee with a proposal to supply a pellet fuel boiler for free with a long term supply agreement for pellets. Cost of pellets to be indexed of cost of fuel oil. The committee decided at this point in time not to pursue this alternative, at least until the natural gas analysis is completed.

10. Plan for Next Council Meeting

Next workshop to be scheduled after the new council is in place after the first of year. Sarah will talk with Mike McGovern about the timing of the next meeting.

11. Schedule for Next Meeting

Bill to send out doodle schedule for next meeting for week before thanksgiving.