

# Town of Harvard Energy Advisory Committee

BRIAN SMITH - CHAIR  
 ERIC BROADBENT - VICE CHAIR  
 BILL BLACKWELL  
 DAVID FAY  
 FORREST HODGKINS

ASSOCIATE MEMBERS:  
 LIAISONS:

RENÉ ROY  
 TIM CLARK, BOARD OF SELECTMEN  
 PAT WENGER, SCHOOL COMMITTEE  
 KEITH CHEVERALLS, CAPITAL PLANNING

## Meeting Minutes 6/22/11

Attendees: B. Smith, E. Broadbent, B. Blackwell, D. Fay, F. Hodgkins, R. Roy  
 Matt Coke (Guest), Jim Elkind(Guest)

| Action / Topic                           | Meeting Discussion/Status  |
|--|--|
| 1. Approve the previous meeting minutes. | <b>The minutes of the 5/25/11 and 6/8/11 meetings were approved.</b>   |
| 2. Solarize Program                      | <b>The CEC Solar 201 workshop will be held 6/23 at Volunteers Hall. The “solar community garden” concept is being evaluated. Commitments are due by 9/30. New England Breeze was selected as the supplier for Harvard (\$5.5/Watt up to 200 people).</b>   |
| 3. Energy Retrofit Projects              | <b>1. See Attachment (1) for a list of projects, status and next steps.</b>  |
| 4. Other Items                           | <p><b>a. Still River Fire Station Lighting Upgrade</b> – Bill contacted Prism Energy Services to perform an evaluation of this building and the smaller building not audited during the last group of lighting upgrades. – still pending</p> <p><b>b. Energy Manager</b> – HEAC discussed the roles and duties of an Energy Manager and the types of duties that would make sense for a Town Facilities resource being considered by the Town. Some of the duties could be handles by a part time resource to support the Green Communities program and some by a part time resource focused on the use of the buildings.</p> <p><b>c. FY12 Goals</b> – topics to address include Energy Manager duties and implementation, solar landfill plan, Building updated audits/assessments, Green Community projects, Monitoring</p> <p><b>d. Annual appointments</b> - for Jim E and Matt C are scheduled for BOS on July 19.</p> <p><b>e.</b> David Fay requested HEAC support for bringing in a Residential Energy Savings speaker (Blasnick) for the Town.</p> <p><b>f.</b> David Fay reported that he has been selected by the Energy Insight software maker, Peregrine, as an Expert User.</p> |

# ENERGY COMMITTEE PROJECTS

| Building                                 | Project   | Status Category                    | Status  | Next Steps  | HEAC Contact | Planned Complete |
|--|---|------------------------------------|---|---|--------------|------------------|
| <b>Funded and In Progress or Planned</b> |   |                                    |   |   |              |                  |
| <b>FY11</b>                              |   |                                    |   |   |              |                  |
| Bromfield High School                    | Solar Panels - 5 kW system  | In Process                         | Equipment procured.<br>6/8 - Inspector signoff expected 6/13.<br>5/11 - Final Drawings done. Drawing submitted to inspector for permit 5/16.<br>5/25 - School Committee approval not required for mounting change.  | 1. Obtain approval of Building inspector.<br>2. Install structural roof supports.<br>3. Connect to electric grid.<br>4. Set up DAS and educational plan/curriculum.<br>5. Arrange PR.                     | Bill B       | Jun-11           |
| Bromfield High School                    | Mechanical Upgrades - DCV, BAS Upgrade, Retrocommissioning, RTU Fan VSDs      | In Process                         | 1. Equipment Installed.<br>2. 5/25 B2Q waiting for controls contractor to provide list of items that require repair.  | 1. B2Q to provide list of repairs to equipment discovered during the retrocommissioning.<br>2. Need final Ngrid signoff.<br>3. Electrical issues regarding electrical protection to be <u>evaluated</u> . | Brian S      | May-11           |
| Bromfield High School                    | Mechanical Upgrades - Options - Boiler HW VSDs, Pneumatic Controls Conversion | In Process                         | Equipment Installed   | 1. Need final Ngrid signoff.  | Brian S      | May-11           |
| Hildreth Elementary                      | Boiler HW VSDs and Digital Controls   | In Process                         | Equipment Installed   | 1. Need final Ngrid signoff.  | Brian S      | May-11           |
| Town Hall                                | Energy Monitoring   | In Process                         | 4/27 - 5/25 - Dave Woodsum reviewed the monitoring equipment and electric panel.<br>5/25 - Completed circuits in Town Hall make this project more difficult than expected.<br>6/8 - David considers Hildreth House as best building to monitor circuits. Bromfield House would be a backup. | 1. Select building and set up circuit monitors.   | David F      | May-11           |
| <b>FY12</b>                              |   |                                    |   |   |              |                  |
| Hildreth Elementary School               | Mechanical Upgrades - DCV, New BAS, Retrocommissioning                        | Funded (\$100k) Planned            | 1. Scope defined and updated in Jan 2011 by B2Q.<br>2. B2Q to contact Ngrid superiors to expedite incentive approval.   | 1. Need official confirmation of Ngrid incentives.  | Brian S      | Q4 2011          |
| Police Station                           | HVAC / EMS Upgrade  | Partially Funded (\$22k); Planning | 1. Determining the controls and boiler replacement changes with the largest impact and lowest cost. Investigation has included a site visit, Fitchburg Heating history review, Chief interview, B2Q site visit, EED audit.<br>2. Ngrid agreed verbally to a WBA evaluation.                 | 1. Ngrid to arrange B2Q to perform engineering audit.<br>2. Compile results of investigation.<br>3. Recommend mod to GC grant proposal based on B2Q proposal.   | Brian S      | Q4 2012          |
| Fire Station                             | Replace Boiler  | Funded (\$15k) Planning            | 1. Boiler quoted for budget estimate in Dec 2010 by Fitchburg Heating.<br>2. 6/22 Met with Fire Chief; distribution not controlled well.  | 1. Review with new Fire Chief.<br>2. Prepare short bid request and obtain 3 updated bids (one from Fitchburg Heating).  | Forrest H    | Q4 2011          |
| Town Hall                                | Energy Study of Building Envelope   | Funded \$12.5k)                    | Study to be integrated with design effort.  | 1. Contact Ngrid to see if work needs to be implemented first.  | Eric B       | Q4 2011          |
| Bromfield High School                    | Gas Installation  | Funded (\$30k) Planning            |   | 1. Ensure special natural gas rate provided by Ngrid.<br>2. Review project status with Mark Force - funded in FY12.   | Forrest H    | Q3 2011          |
| <b>FY13 and Future</b>                   |   |                                    |   |   |              |                  |
| <b>Active</b>                            |   |                                    |   |   |              |                  |
| Transfer Station PV Site                 | Solar PV Array 250 kW min PPA   |                                    | 4/14 reviewed Scituate experience with Scituate DPW Director Al Bangert.<br>Discussed landfill history with Tim Bragan. Landfill covered in early 80's prior to EPA regulations.  | 1. Determine if Solar PV can be installed on uncapped landfill without capping.<br>2. Layout planning process.<br>3. Determine DEP permits required.  | Brian S      | Q3 2012          |

## ENERGY COMMITTEE PROJECTS

6/22/11

|                            |   |  |   |  |        |         |
|----------------------------|---|--|---|--|--------|---------|
| <b>Not Active</b>          |   |  |   |  |        |         |
| Town Hall & Fire Station   | Insulation  |  |   |  |        | Q4 2011 |
| Town Hall                  | HVAC System Replacement/ Insulation                           |  | Assume 20% savings on baseline energy for heat  |  |        | Q3 2013 |
| Town Hall & Fire Station   | Heating Controls - TH Heat Zones; FS Door Timer & Thermostats |  |   |  |        | Q3 2011 |
| Public Library             | Recommission EMS  |  |   |  |        | Q1 2013 |
| Public Library             | Volunteer Hall Fan VSD, heating system outdoor reset control  |  |   |  |        |         |
| Hildreth Elementary School | Secondary Boiler(not burner)                                  |  | Pursuit of MSBA and GC funds cancelled Mar 2011 |  | Eric B | FY12    |
| Hildreth Elementary School | K Wing Windows  |  | Pursuit of MSBA and GC funds cancelled Mar 2011 |  | Eric B | FY14    |
| Bromfield High School      | Secondary Boiler  |  |   |  |        |         |
| Fire Station               | Remaining Projects from EED Audit                             |  |   |  |        |         |
| Bromfield High School      | Solar PV Array Roof PPA                                       |  |   |  |        |         |
| Bromfield High School      | Solar Thermal for Kitchen                                     |  |   |  |        |         |
| Hildreth House             | HVAC System Replacement/ Insulation                           |  |   |  |        | Q3 2013 |
| Hildreth House             | Energy Audit  |  |   |  |        |         |
| Old Library                | HVAC System Replacement/ Insulation                           |  |   |  |        | Q3 2013 |
| Town Highway Building      | Remaining Projects from EED Audit                             |  |   |  |        | FY13    |
| Bromfield House            | Energy Audit  |  |   |  |        |         |
| Pond Pump                  | 3 Phase Power?  |  |   |  |        |         |
| Town Buildings             | Energy Monitoring System                                      |  | Integrate with Schools BAS interface            |  |        |         |