

# Town of Harvard Energy Advisory Committee

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

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

## Meeting Minutes 5/25/11

Attendees: B. Smith, B.Blackwell, F. Hodgkins

| Action / Topic                           | Meeting Discussion/Status   |
|--|---|
| 1. Approve the previous meeting minutes. | The minutes of the 5/11/11 meeting were approved.   |
| 2. Solarize Program                      | <b>5/12 Meeting – 63 people attended to learn about the program, Worth Robbins is working to publicize the program on Facebook, town site, googlegroup, etc.. The CEC Solar 101 workshop is scheduled for 5/31.</b>   |
| 3. Energy Retrofit Projects              | <b>1. See Attachment (1) for a list of projects, status and next steps.<br/>2. Green Community Grant Program – Lorraine Leonard will put together summary documents about the procurement process requirements for Green Communities grant projects. Lorraine and Tim are also working on clear guidelines for department heads to follow for reporting and financial accounting for GC projects.</b> |
| 4. Other Items                           | <b>a. Still River Fire Station – The Fire Chief asked about a lighting upgrade for this building. It was not included in the previous audit because of the minimal use which may be misunderstood. Bill will call previous auditor to see if they can audit this building.<br/>b. July 4<sup>th</sup> parade – HEAC is invited to participate, specifically with a solar or efficient vehicle.</b>    |

# 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>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.<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 evaluated. | 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 School               | 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.  | 1. Evaluate what circuits at Town Hall to monitor or whether to monitor a different building.   | David F      | May-11           |
| <b>FY12</b>                              |   |                            |   |   |              |                  |
| Hildreth Elementary School               | Mechanical Upgrades - DCV, New BAS, Retrocommissioning                        | Funded 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; 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 Planning            | Boiler quoted for budget estimate in Dec 2010 by Fitchburg Heating.   | 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 Planning            | 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 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>                   |   |                            |   |   |              |                  |

# ENERGY COMMITTEE PROJECTS

| Active                     |  |  |   |  |         |         |
|----------------------------|--|--|---|--|---------|---------|
| Transfer Station PV Site   | Solar PV Array 250 kW min PPA                                    |  | 4/14 reviewed Scituate experience with Scituate DPW Director Al Bangert. 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. | Brian S | Q3 2012 |
| Not Active                 |  |  |   |  |         |         |
| 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;<br>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  |  |         |         |