



## **Massachusetts Energy Efficiency Programs**

**1/27/2011**

### **Residential Technologies**

#### **Assessment of Residential New Technologies: Requirements for Assessing the Energy Savings and Program Eligibility of Energy Efficient Equipment**

The eight Massachusetts Program Administrators<sup>1</sup> (PAs) offer incentives to customers who install cost effective, eligible equipment that reduce their electricity and natural gas consumption. The incentivized equipment can replace an existing, functioning but less efficient energy-consuming measure or system (a “retrofit”), replace a failed piece of equipment with a more efficient alternative, or can be a part of an entirely new installation.

The Massachusetts Technical Assessment Committee (MTAC) has the responsibility for managing a consistent and clearly understandable process by which the energy savings and program eligibility of new technologies can be established on a statewide basis. Technologies that are examined and approved by the MTAC will be authorized for incentive offerings by all Massachusetts PAs. Conversely, technologies disapproved by the MTAC will be ineligible for incentives from any PA. MTAC requests that parties seeking to have technologies assessed for eligibility adhere to this process in order to expedite consideration by the Committee.

For equipment to be considered for program incentive eligibility, it must meet the requirements identified in this document.<sup>2</sup> Please see Section 5 of this document for a listing of several categories of technology that have been determined to be ineligible for program incentives. The ineligibility of specific equipment for energy efficiency program incentives does not in any way imply that the given equipment performs poorly or does not save energy; only that technology does not fit within our Program requirements to receive incentive funding.

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<sup>1</sup> Program administrators include Columbia Gas of Massachusetts, The Berkshire Gas Company, Cape Light Compact, National Grid, New England Gas Company, NSTAR, Until, and Western Massachusetts Electric Company.

<sup>2</sup> Specific projects utilizing eligible technologies must also meet the detailed project eligibility requirements listed on the project applications specific to each Program Administrator.

## **SECTION 1: Threshold General Equipment Requirements**

Documentation that the following seven criteria are met must be provided to the MTAC before the Committee will undertake an assessment for potential program eligibility. (For technologies without an established “track record” see Section 3 of this document.) The proposed technology must:

- 1- Be listed, certified, and tested by a recognized national testing laboratory for safety.
- 2- Be currently commercially available.
- 3- Meet all applicable local, state, and federal codes.
- 4- Not void or conflict with warranties of equipment to which it is applied. (Written confirmation of this may be required.)
- 5- NOT be a maintenance measure or substitute for a maintenance measure or procedure.
- 6- Be automated and not require manual operation to achieve savings.
- 7- Not be considered marketplace “standard practice” for replacement or new construction.

## **SECTION 2: Energy Savings Requirements**

Once the Committee is satisfied that the Section 1 threshold requirements are met, then it will examine applicant-submitted documentation that can establish that adequate energy and non energy benefits and savings are present. The requirements for this are the following:

- 1- Energy savings must be calculated using industry-accepted engineering formulas and information based on Massachusetts related conditions.
- 2- Site-specific energy savings must be measured and documented using industry-accepted metering equipment and procedures.
- 3- Site-specific operating parameters that were used in the estimation of energy savings must be clearly identified and be field measurable.
- 4- Equipment installation must have predictable and repeatable natural gas (therm) or electricity (kWh) saving values.
- 5- Project energy savings must be adequate to pass all appropriate program benefit-cost tests.
- 6- Equipment must be tested for energy savings by a nationally recognized and independent testing laboratory. The test must include and determine any impact on the performance of the underlying system.
- 7- Equipment must have been installed and proven to save energy at multiple installations.

### **SECTION 3: Assessment of New Technologies**

Section 3 criteria may be applied to the assessment of new equipment or technologies that have not yet completed national testing or do not yet have an “established and proven record.” The MTAC Committee may, at its discretion, consider the implementation of a “pilot project” to assess the new equipment in the field. In order to merit such Committee consideration, equipment vendors must be able to meet the following requirements:

#### **Pilot Project Testing Requirements**

- 1- The equipment vendor must submit to the MTAC a detailed engineering description of the operation and the application of the proposed energy saving device.
- 2- With the assistance of the vendor, the MTAC will determine the required operational data to be measured along with the type of equipment to be used in conducting these measurements. Pre and post installation data will be collected.
- 3- With the assistance of the vendor, the MTAC will analyze the data collected to determine the magnitude of energy savings.
- 4- Pilot project cost sharing between the vendor and Program Administrators may be required.

The Committee reserves the right to approve or not approve the tested device for program eligibility based on the results of the completed analysis. All work products completed by the MTAC are the property of the Committee. The Committee reserves the right to disclose or not to disclose the detailed findings of any pilot project analysis.

### **SECTION 4: Application to the Committee**

In order to expedite the consideration of potential program eligibility, applicants are required to submit, in well organized form, a variety of documentation and other written materials. In addition to providing documentation addressing each numbered item in Sections One and Two, the Committee requests that the following additional materials be submitted:

- 1- Detailed documentation of the technology to be assessed.
- 2- Documentation that describes the appropriate application of the technology to be considered.
- 3- Applicants are requested to identify any other energy efficiency Program Administrators or utilities that have assessed or adopted the specific technology under consideration for program eligibility in jurisdictions outside of Massachusetts.
- 4- To enable an analysis of program cost effectiveness applicants are requested to provide an estimation of the complete installation costs of the technology, with hardware and labor costs detailed and broken out separately.

All required materials or documentation as identified in this document should be submitted to the MTAC at the email address listed below. The MTAC checklist of required documentation should be used to ensure the completeness of the submission and rapid review by the Committee.

Residential MTAC committee Email – [Residential\\_MTAC@masssave.com](mailto:Residential_MTAC@masssave.com)

## **SECTION 5: EXAMPLES OF INELIGIBLE MEASURES**

Prior evaluation research or stated program policy has established that the following categories of technology are not eligible for program incentives. The ineligibility of specific equipment for energy efficiency program incentives does not in any way imply that the given equipment performs poorly or does not save energy; only that technology does not fit within our current Program requirements to receive incentive funding.

- 1- Power quality and power conditioning technologies
- 2- Voltage controllers
- 3- Refrigerant and oil additives