



# MASSACHUSETTS NEW HOMES WITH ENERGY STAR®



The Major Renovations Pilot Program is sponsored by Cape Light Compact, National Grid Electric, NSTAR Electric, and Western Massachusetts Electric Company.

## 2012 MAJOR RENOVATIONS PILOT PROGRAM OVERVIEW

The Major Renovations Pilot Program, an affiliate program to the Massachusetts New Homes with ENERGY STAR® program, provides incentives to contractors who are partially gutting and renovating a home, or building an addition, to increase the energy performance of the home.

### **Technical Support**

- An initial assessment will be provided to identify upgrade opportunities as well as support for implementation.
- Onsite inspections will occur with the insulation and other contractors during key phases of the construction process to ensure the project meets efficiency goals.

### **Financial Incentives**

- Up to \$2,000 in energy efficient upgrades are available plus additional incentives for air sealing. Rebates for high efficiency heating, cooling, and water heating equipment are also available through Mass Save®
- The Program, through independent Mass Save verifiers, will help identify additional rebates and incentives available to participants.

### **Compact Fluorescent Lighting at No Cost**

- A wide range of screw-in compact fluorescent lamps (CFL)s for appropriate fixtures in the home will be provided at no cost.

## **Project Requirements**

### **EXISTING AREAS**

- Any new windows must be ENERGY STAR® qualified, having a U factor  $\leq .30$ .
- Seal the accessible ductwork in unconditioned space using mastic and insulate to code requirements: Supply ducts in attics shall be insulated to a minimum of R-8. All other ducts shall be insulated to a minimum of R-6.

**Exterior Walls** – Any empty wall cavities must be filled with insulation that meets or exceeds an R value of R-3.2/inch.

**Flat Attic Ceilings** – Seal all air leakage locations including all accessible top plates. Install loose blown insulation to achieve a minimum insulation level of R-38, or completely fills the cavity and meets or exceeds an R value of R-3.2/inch

#### **Basement/Crawl Space –**

- Insulate unfinished basement/crawl space walls with a code approved insulation with a minimum of R-10 continuous or R-13 cavity insulation. Insulate sill perimeter with R 19 blockers. –OR–

- Insulate the unfinished basement/crawl space ceiling with insulation that:

- ♦ Is installed to RESNET (Residential Energy Services Network) defined grade I or grade II standards – AND –
- ♦ Either meets or exceeds an R value of R-30, or completely fills the joist bay with insulation that meets or exceeds an R value of R-3.2/inch.

### **GUTTED AREAS**

Gutted areas must comply with sections 3 and 5 of the ENERGY STAR® Thermal Enclosure System Rater Checklist, excluding the foam sill gasket requirement of section 5.2.1.

- Any new windows must be ENERGY STAR® qualified, having a U factor  $\leq .30$ .
- Seal the accessible ductwork in unconditioned space using mastic and insulate to code requirements: Supply ducts in attics shall be insulated to a minimum of R-8. All other ducts shall be insulated to a minimum of R-6.

**Exterior Walls and Vaulted Ceilings** – Any exposed cavities must be filled with insulation that meets or exceeds an R value of R-13 for 2x4 walls and R-21 for 2x6 walls. Other wall cavities must be filled with insulation that meets or exceeds an R value of R-3.2/inch. Insulation must be installed to RESNET defined grade I or grade II standards.

**Flat Attic Ceilings** – Install loose blown insulation to achieve R-38 minimum insulation level, or completely fills the cavity and meets or exceeds an R value of R-3.2/inch installed to RESNET defined grade I or grade II standards.

## NEW CONSTRUCTION

Newly constructed areas must meet the 2009 IECC prescriptive requirements from table 402.1.1, including R-30 basement ceilings, R-20 walls, and R-38 attic ceilings. The following additional requirements must be met:

- The project must meet sections 3 and 5 of the ENERGY STAR® Thermal Enclosure System Rater Checklist
- Insulation must be installed to RESNET defined grade I or grade II standards.
- Sealed Ductwork– Completely new duct systems must be tested at  $\leq 4\text{cfm}$  per 100 sf of floor area to the outside.
- Windows must be ENERGY STAR® qualified, having a U factor  $\leq .30$ .

## MECHANICAL SYSTEMS

**HVAC** – New heating, air conditioning and water heating equipment must all be ENERGY STAR® qualified.

**Thermostat** – Must be ENERGY STAR® qualified

### Ventilation –

- A BPI (Building Performance Institute) or RESNET combustion safety test must be performed by the Mass Save verifier if there are any naturally or induced draft mechanical equipment (i.e. non-sealed combustion located inside the building envelope).
- Homes with infiltration rates less than 0.25 ACHn must install a program approved ventilation device (see below) with the flow rate set to at least  $0.01 \times \text{CFA} + 7.5 \times (\text{Nbr}+1)$  where: CFA =

### Basement/Crawl Space –

- Insulated basement/crawl space walls with a code approved insulation installation with a minimum of R-10 continuous or R-13 cavity. Insulate sill perimeter with R 19 blockers. –OR–
- Insulate the basement/crawl space ceiling with insulation that:
  - ♦ Is installed to RESNET defined grade I or grade II standards – AND –
  - ♦ Either meets or exceeds an R value of R-30, or fills the joist bay and meets or exceeds an R value of R-3.2/inch.

conditioned floor area and Nbr = number of bedrooms. The permanent flow rate shall NOT exceed the required flow rate by more than 20 percent on any home.

- Program approved mechanical ventilation devices:
  - ♦ A bath fan rated for continuous use at  $< 1.5$  sones and controlled by a 24-hour programmable timer OR
  - ♦ One whole house mechanical ventilation system (includes an ERV or HRV) OR
  - ♦ A balanced supply and exhaust system without heat recovery OR
  - ♦ A multi-port exhausts only system with a remote mounted fan

***Home inspections are mandatory, as described on the Application.***

# 2012 MAJOR RENOVATIONS PILOT PROGRAM PARTICIPATION

## Qualification Requirements

Must have a renovation that includes gutted portions of the house and/or any size addition.

- The following mandatory inspections must be scheduled by the participant and completed by the Mass Save verifier. Contact the Mass Save verifier at the times indicated below.
  1. A pre-construction assessment of the existing home. Homes that have started construction are still eligible to participate.
  2. An insulation inspection must be conducted after the insulation and air sealing are complete and prior to the start of the wallboard installation. If you have a new duct system, it should be tested at this time, prior to the wallboard installation.
  3. Toward the end of the shell completion of the project and once the HVAC systems are installed if applicable, a final inspection must be scheduled. This includes blower door testing and the installation of energy-efficient light bulbs.

## Incentives

Building envelope upgrades are incentivized on a per square foot basis. Upgrades to the unrenovated portions of a home are incentivized differently than gutted and new portions. Please refer to the incentive worksheet for specific incentives.

The envelope upgrade incentives are capped at \$2,000 per legal residence plus additional incentives for air sealing. All projects must complete and be submitted to the program by the Mass Save Verifier before November 30, 2012 in order to receive incentives.

## Mass Save Verifier Incentive

In addition to the incentives mentioned above, the Program will also pay a \$300 incentive to the Mass Save verifier for reporting information to the Program with a \$200 bonus for early reporting. This incentive is paid directly to the Mass Save verifier the participant hires for their project, at the successful completion of the project. This fee is only paid to Mass Save verifiers registered to work with the Major Renovations Pilot Program. Please be aware that each Mass Save verifying company is a private company with its own pricing structure. The fees charged by the Mass Save verifier are in no way fixed by the Program. As with any other subcontractor, the fee the Mass Save verifier charges can be affected by the size and complexity of the project, amount of consulting work required, travel time, etc.

## Additional Rebates

Participants in the Major Renovation Pilot Program are eligible to receive additional incentives through Mass Save, such as incentives for energy efficient heating, cooling and water heating equipment. Participants must apply for these additional rebates separately if they choose to do so, they will not be processed through the Major Renovations Program and are subject to the terms and conditions set forth by each program. Please visit [MassSave.com](http://MassSave.com) to learn about additional rebates. Participants in the Major Renovations Pilot Program will not be eligible for the Home Energy Services Program (Home Energy Assessment) or affiliated programs in the same calendar year.

## How to Participate

1. Consult the Program for information and pre-qualification, and to obtain a list of Mass Save verifiers registered to work with the Program.
2. Fill out the application below.
3. Hire a certified Mass Save verifier who will enroll your project, review plans and advise on appropriate inspection times. The Mass Save verifier will submit for incentives on the participant's behalf.

**YOUR PROJECT MUST BE SUBMITTED TO THE PROGRAM BY A MASS SAVE VERIFIER IN ORDER TO OFFICIALLY ENROLL AND RECEIVE INCENTIVES.**

## 2012 MAJOR RENOVATIONS PILOT PROGRAM APPLICATION

Applicant/Incentive Recipient:		Applicant Company (if applicable):	
Mailing Address (include city, state, zip):		Phone:	Email:
Applicant Contact:		Mass Save Verifier Company Name:	
Please Circle All That Apply:     Single Family     Multi-Family		Heating Fuel Type:	
Electric Service Provider :		Estimated # of Units to Complete by 11/30/12:	
Electric Account #:			
<b>Incentive Guidelines</b> <ul style="list-style-type: none"> <li>The submission of this Application does not guarantee receipt of incentives. Written approval from the Program will state the number of incentives awarded, incentives will not be paid prior to home testing and verification.</li> <li>The incentives awarded are to assist in the defrayment of certification cost to the applicant and help cover some of the incremental costs, if applicable. The applicant may need to contribute to the construction costs to meet the program defined performance requirements. Sponsors pay the Mass Save Verifier Company a fixed certification incentive for verifying a home earns the program performance requirements. Any certification fee balance is the sole responsibility of the Participant and should be paid directly to the Mass Save Verifying Company.</li> <li>Participating homes must be located in the service territory of Cape Light Compact, National Grid Electric, NSTAR Electric, or Western Massachusetts Electric Company, as evidenced by town, zip code and, ultimately, a permanent electric meter number.</li> </ul>		<ul style="list-style-type: none"> <li>SPONSORS, ITS AGENTS, AND EMPLOYEES DO NOT WARRANT THE PERFORMANCE OF INSTALLED OR SERVICED EQUIPMENT EXPRESSLY OR IMPLICITLY. Program sponsors make no warranties or representation of any kind whether statutory, expressed or implied, including without limitations, warranties or merchantability or fitness for a particular purpose regarding the HVAC equipment or services provided by a manufacturer or vendor. Contact your contractor for details regarding equipment performance or warranties.</li> <li>Participation in the Major Renovations Pilot Program is voluntary on behalf of the Sponsors and the applicants. The Sponsors have the right to change or modify the existing Program at any time. The Sponsors of the Program, its agents, and employees are indemnified against all loss, damage, expense, and liability resulting from injury to or death of persons, and against all injury to property arising out of or in any way connected with the performance of this Agreement.</li> <li>The Energy Efficiency Program Provider (EEPP) is entitled to 100% of the energy benefits associated with the Energy Cost Measurements, excluding the value of energy cost savings realized by the customer, but including all rights to all associated ISO-NE Energy Capacity and Reserves Products, and the customer agrees to provide the EEPP with such further documentation as the EEPP may request to confirm the EEPP's ownership of such benefits and products.</li> </ul>	
Applicant Signature:		Date:	

Please submit application by mail, fax or email to:

**MAJOR RENOVATIONS PROGRAM**  
 c/o ICF International  
 33 Hayden Avenue, 3<sup>rd</sup> Floor  
 Lexington, MA 02421  
[majorreno@icfi.com](mailto:majorreno@icfi.com)  
 1.800.628.8413 (t) | 781.676.4061 (f)

