

# NEW CONSTRUCTION

## A Memorandum of Understanding for the Integrated Design Path for Small Buildings

The Integrated Design Path for Small Buildings (“Program”) is provided by the Mass Save Program Administrators (PAs)<sup>1</sup>, as a comprehensive new construction offering for buildings between 20,000 and 100,000 sf when PAs are engaged early in the project’s design process.<sup>2</sup> The purpose of the Program is to reduce building electrical and thermal energy demand and consumption by implementing cost-effective design alternatives early, before the end of design development, when changes are still feasible.

**Applicability: Eligible projects are new buildings, building additions, and major renovations of existing buildings. Lab buildings, grocery stores, industrial projects (including data centers) and multi family projects may NOT be eligible for this Program. The Mass Save PAs offer a different program for new and renovated multi family buildings. Lab buildings, grocery stores and industrial projects may be able to participate in the Large Buildings Program. Ask your PA for details. Qualifying major renovations involve complete replacement of the existing HVAC system, replacement of the lighting system and measures that improve the building envelope. Eligible projects should operate year round with the exception of some educational buildings. Core and shell projects are eligible.**

The PAs offer incentives to both building owners and their design teams based on expected annual site energy savings<sup>3</sup>. The incentive dollars for owners are intended to cover a cost-effective portion of the incremental construction costs associated with energy efficient building measures. The incentive dollars for design teams are intended to cover a portion of extra services (e.g., additional meetings and analysis, product research, etc.) necessary to achieve deeper energy savings in participating projects. In addition to the customer and design team incentives, PAs offer technical assistance and design support for the project team.

This document outlines the roles and responsibilities of each party in order to set transparent expectations for all parties participating in the Program. Under no circumstances does this Memorandum require customers or design teams to incorporate any particular energy conservation measure or group of measures into a project. Building designs proceed at the direction of customers and their design teams. All assistance offered by PAs through this Program is offered in an advisory capacity only.

The Mass Save PAs understand that the following customer

\_\_\_\_\_ (“the Owner”):

has undertaken the following new construction or major renovation project at the following address:

\_\_\_\_\_ (“Premises”)

This project is being designed by the following design professionals (collectively, the “Design Team”):

\_\_\_\_\_ (“Architect”)

\_\_\_\_\_ (“Electrical Engineer”)

\_\_\_\_\_ (“Mechanical Engineer”)

Participating Mass Save Program Administrators:

\_\_\_\_\_ (“Electric PA”) \_\_\_\_\_ (“PA Company”)

\_\_\_\_\_ (“Gas PA”) \_\_\_\_\_ (“PA Company”)

<sup>1</sup> To determine your electric and/or gas provider, please visit [masssave.com/en/contact](http://masssave.com/en/contact).

<sup>2</sup> For projects ineligible for this path, there may still be applicable incentive offerings. Ask your PA.

<sup>3</sup> Neither combined heat and power (CHP) nor electricity generating renewables, such as photovoltaic (PV) or wind turbine technology contribute towards annual site energy savings. Mass Save advises customers to select light fixtures that are either ENERGY STAR® certified or listed on the Design Lights Consortium (DLC) list of Qualified Products to ensure quality. Incentives for lighting savings may be limited for non ENERGY STAR/non DLC fixtures.

## Requirements for Participation in the Program:

### Owner or Owner's Design Team will:

- Engage PAs between pre-schematic design and completion of the design development phase of the project
- Target a combined gas and electric site energy savings of at least 10% better than the Program's baseline, which generally reflects the state energy code (ask your PA for more details)
- Work collaboratively with each other and with the PAs' technical assistance (TA) vendor toward the beyond 10% energy savings goal
- Participate in an energy efficiency charrette before the end of design development

**PLEASE NOTE: Advise purchasing agents this project cannot participate in the Mass Save Upstream program with respect to HVAC and lighting equipment. For more information please contact PA.**

### PAs will:

- Assign a pre-qualified technical assistance (TA) vendor to lead an Energy Charrette and provide technical assistance throughout design (vendor participation in charrette and all design assistance is funded 100% by PAs)
- Provide energy modeling, where needed, to determine savings and incentives (the need for energy modeling is determined by the PAs, and where needed, it is funded up to 100%, capped at \$8,000, by PAs)
- Assist customer in making informed decisions about including energy conservation strategies in the project
- Pay customer a custom incentive based on annual site electric and gas savings predicted by the energy model if there is one, or direct customer to complete prescriptive incentive applications. Custom incentives are capped at 100% of the combined incremental cost of the energy conservation measures for the project. Projects must be cost effective in order to receive the full customer incentive. Payment will occur upon site verification. Any incentive greater than \$100,000 is subject to 20% hold back pending receipt of commissioning report or trend data. See incentive rates below:

### Small Building Customer Incentives\*

Savings Beyond Code	\$/kwh	\$/therm
Berkshire Gas <sup>4</sup> , Cape Light Compact, Columbia Gas <sup>4</sup> , Eversource, Unitil Service Territories		
≥30%	\$0.50	\$2.10
20-30%	\$0.40	\$2.00
10-20%	\$0.30	\$1.90
<10%	\$0.20	\$1.80
Berkshire Gas <sup>5</sup> , Columbia Gas <sup>5</sup> , Liberty Utilities, and National Grid Territories		
<b>All Projects</b>	\$0.35	\$1.70

\*Projects must be cost effective to receive full incentive and are subject to applicable PA budget

- Pay a separate incentive to the design team<sup>6</sup>, capped at \$15,000 per PA, to encourage the integrated design that is necessary to achieve greater than 10% savings and to ensure that agreed upon ECMs remain in the project throughout construction. Design team incentives are available for modeled projects only, if the model shows at least 10% whole building savings. Design team incentives are paid to the design team lead, which may disperse to other team members as appropriate. Fifty percent (50%) of the design team incentives are paid once the PAs have determined the project's energy savings and have issued a customer incentive offer letter, and the remaining 50% is paid at the conclusion of construction.

<sup>4</sup> When Eversource is the lead electric utility.

<sup>5</sup> When National Grid is the lead electric utility.

<sup>6</sup> Where the project has a contract that may restrict payments to the design team (as can happen with some municipal projects), it is upon the design team lead to work with the customer to ensure that the design team can obtain design team incentive payments per this Program offering.

## Small Building Design Team Incentives\*

Savings Beyond Code	\$/kwh	\$/therm
Berkshire Gas <sup>6</sup> , Cape Light Compact, Columbia Gas <sup>6</sup> , Eversource, Unitol Service Territories		
≥30%	\$0.07	\$0.34
10-30%	\$0.04	\$0.20
Berkshire Gas <sup>7</sup> , Columbia Gas <sup>7</sup> , Liberty Utilities, and National Grid Territories		
≥10%	\$0.07	\$0.34

\*Each PA capped at \$15,000

### Detailed Process:

#### Step 1—Coordination with PA

During schematic design or in pre schematic design, inform your PA of your new construction project to see if the Small Buildings Program is a good fit. The Small Buildings Program is only available when PAs are engaged early in design and an Energy Charrette (see Step 2) can be scheduled during schematic design or design development. The earlier you contact your PA, the better the opportunity for energy savings and incentives. Following your initial conversation with your PA, your PA will identify a vendor who will provide design support and technical assistance to the project team, starting with an Energy Charrette.

#### Step 2—Energy Charrette

During the schematic design or design development phase of the project, the PAs' vendor will lead an Energy Charrette with the project's design team. There is no customer cost share required for the vendor's services in leading the charrette. The owner, the architect, the MEP (Mechanical, Electrical and Plumbing) Engineers, the lighting designer (if there is one), the commissioning agent (if there is one) and the general contractor (if selected) together with the PAs should participate in this brainstorming session intended to identify, discuss/analyze and compare potential building ECMs. The charrette, which can be part of a larger green building/LEED charrette, or a separate meeting, should be long enough to enable a full discussion of each energy system in the building and a wide range of energy conservation measures for each of these systems (2-3 hours is usually sufficient). In advance of the Energy Charrette, the owner shall ensure that the PAs are provided with any existing project drawings and design narratives.

- The outcome of Energy Charrette shall be a report that identifies the ECMs that the team agreed to pursue further, and ideally include in the building design.

#### Step 3—Design Assistance

- After the charrette, the PAs' vendor will be available as needed to answer questions and otherwise consult with the design team on the best way to include the efficiency measures discussed in the charrette into the design.
- The PAs' vendor will conduct a mid design review at a point between the 100% design development drawing set and the 60% construction documents, depending on the project, to assess progress on incorporating the strategies agreed upon during the charrette into the design, and at this time will provide feedback on additional changes to the design that will result in further energy savings. The vendor will issue a report to the PAs and the customer based on this mid design review.
- At the appropriate time during design, the customer will provide the following language to the purchasing agent procuring equipment: **"This project will be receiving incentives through an Mass Save energy efficiency program directly. Equipment Distributors: Please Do Not include an upstream program incentive in the bid response, as this project can't be reported through the Commercial Upstream Program."**

<sup>6</sup> When Eversource is the lead electric utility.

<sup>7</sup> When National Grid is the lead electric utility.

- The design assistance and reporting will be provided free of charge to the customer and design team.
- The PAs will determine, based on the mid design review, if the energy conservation strategies included in the project warrant energy modeling, or whether the customer should instead pursue prescriptive incentives. The PAs' decision to model the project would be based on the type and interactivity of the project's ECMs and expected savings.

#### **Step 4—Energy Modeling, if Needed**

The TA vendor will submit a proposal to the customer and the PAs for energy modeling services, if PAs advise that modeling is appropriate. The energy modeling service will be provided at up to 100% cost share by the PAs, capped at \$8,000 paid to the TA vendor. Once the vendor's proposal for modeling services is approved by the PAs, the TA vendor will begin an analysis of the potential energy savings and incremental construction costs of the ECMs identified, using a building energy use simulation model (i.e., eQuest or Energy Plus if eQuest cannot adequately handle the analysis of certain ECMs). The TA Vendor will evaluate the ECMs against the Mass Save baseline. The baseline should be clearly established during the charrette and during the TA study proposal review process.

#### **Step 5—Reporting and Incentive Offer**

- The TA vendor will prepare the draft final energy model and report for the PAs to review based on the 100% construction document (CD) set. The TA vendor will prepare these draft final documents for PA review within 4 weeks of receipt of the 100% construction documents set.
- PAs will review the draft final energy model and report, may issue comments to the TA vendor for incorporation, and will then request the final model and report from the TA vendor. The final model and report will be accompanied by a completed Custom Application, including the Minimum Required Documents (MRDs) which describe in detail the ECMs that are contributing to the project's energy savings. Customer must review and sign both the Custom Application and the MRDs in order to receive incentive offer letters from participating PAs.
- PAs will screen the combined set of ECMs through their benefit cost tool. Note that all projects must be cost effective in order for the customer to receive the maximum incentives. If an ECM with a very long payback causes the whole project to fail the PAs benefit cost screen, PAs may remove that ECM from the analysis for purposes of calculating the incentives.
- Upon acceptance of the final analysis and report, the signed Custom Application and MRDs, each PA will issue a formal letter offering an incentive to the customer.
- At this time, if the project savings exceed 10%, the design team lead may submit an invoice to each PA totalling 50% of the available design team incentive. The remaining 50% may be invoiced at the conclusion of construction. PAs pay the design team incentives to the design team lead, who may disperse to other team members as appropriate.

#### **Step 6—Project Completion and Incentive Payment**

- The owner and design team must keep the list of final ECMs in mind during construction administration so that ECMs for which incentives are being offered are not substituted or removed during construction.
- A few weeks before substantial completion, the PAs may request a set of the approved submittals and invoices associated with all of the ECMs being supported with incentives, including controls submittals. PAs may also request a copy of the project's schedule of values.
- All projects participating in the Program are subject to inspection by each participating PA. Owners may be asked

## Engagement with PAs after Design Development:

**Project teams and customers who engage with PAs on qualifying projects after the end of design development, may participate in Mass Save as follows:**

- Engagement with PAs after the end of Design Development and before the end of Construction Documents:

Project teams may still participate in the modeling-only portion of the Small Buildings Program at up to 50% PA and 50% customer cost share. The charrette, the design team incentives, and additional design support offered to integrated projects will not be available for project teams that engage PAs after 100% Design Development. Customer incentive rates will vary from those published in this document.

- Engagement after 100% Construction Documents:

The Small Buildings Program as described above is not available, but teams may participate with PAs by completing appropriate prescriptive and custom applications via the New Construction Systems Approach.

## Disclaimers:

Except for payment of incentives as set forth hereunder, the Mass Save PAs do not make any representations, warranties, promises or guarantees in connection with the Program, ECMs, energy savings, benefits, adequacy or safety of ECMs or other items, or any work, services or other item performed in connection with the Program including, without limitation, the warranty of merchantability or fitness for a particular purpose. Also, other than the energy cost savings realized by Customer, the Program Administrator is entitled to 100% of the benefits and rights associated with the EEMs, including without limitation ISO-NE products and all other attributes, credits or products associated therewith under any regional initiative or federal, state or local law, program or regulation or program, and Customer waives, and agrees not to seek, any right to the same. The Mass Save PAs are not responsible for the payment of any taxes assessed by federal, state or local governments on either benefits conferred on the owner by the PAs or design incentives paid to the design team.

By signing below, the owner represents that he/she (1) shall be the sole and lawful owner of the Premises and (2) has read, understands, accepts and agrees to the terms and conditions for participation in the Program outlined above.

**Owner Signature:** \_\_\_\_\_

**Owner Printed Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Email:** \_\_\_\_\_

**Phone:** \_\_\_\_\_

**Architect Signature:** \_\_\_\_\_

**Architect Printed Name and Company Affiliation:** \_\_\_\_\_

**Date:** \_\_\_\_\_

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**THIS DOCUMENT MUST BE SIGNED BEFORE ENGINEERING SERVICES APPLICATION CAN BE REVIEWED**