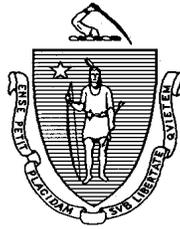


Regional Greenhouse Gas Initiative
CO₂ Budget Trading Program



Massachusetts
Department of Environmental Protection

Massachusetts CO₂ Budget Trading Program

Offset Project Monitoring and Verification Report

Building Sector Energy Efficiency

Version 1.0

Issued by

Issued on

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1. Overview

To demonstrate the achievement of carbon dioxide (CO₂)-equivalent (CO₂e) emissions reductions from a building sector energy efficiency offset project that has received a consistency determination from the Massachusetts Department of Environmental Protection (MassDEP), a Project Sponsor must submit to MassDEP in accordance with the instructions (see accompanying instructions packet), a fully completed *Offset Project Monitoring and Verification Report – Building Sector Energy Efficiency Version 1.0 (M&V Report)*, consisting of the coversheet and all forms and related attachments. Following the instructions will ensure that the *M&V Report* contains all necessary information and is submitted properly.

The Project Sponsor should review the Massachusetts CO₂ Budget Trading Program regulations, 310 CMR 7.70(10) for information regarding offset projects and the award of CO₂ offset allowances. All Massachusetts offset project submittal materials and documents are available at <http://www.rggi.org/offsets>.

2. Submission Instructions

The Project Sponsor should submit the completed *M&V Report*, and all attachments, via the Regional Greenhouse Gas Initiative (RGGI) CO₂ Allowance Tracking System (COATS) at <http://www.rggi-coats.org> under the established general account identified in the Massachusetts *Consistency Application* for the project. For additional information, consult the RGGI COATS User's Guide, available at <http://www.rggi-coats.org>.

The *M&V Report* has three (3) parts, as described below. Each part comprises specified forms and required documentation. The *M&V Report* has been created as a Microsoft Word document with editable fields. Enter information directly in the fields provided or submit information or documentation as an attachment, as instructed. Include headers on all attachments indicating the form to which each is attached, and the offset project name, and offset project ID code. If attachments are being submitted as separate electronic documents, please include the form numbers in the file names of the documents.

When submitting documents electronically via RGGI COATS, it is not necessary to submit a scanned or paper hardcopy of the application forms. The Project Sponsor must retain the completed original copy of the *M&V Report* and attachments with the original signed documents. MassDEP reserves the right to request the original signed application documents at any time.

A completed hardcopy and/or CD of the *M&V Report* may also be mailed to: Climate Strategies Group, Massachusetts Department of Environmental Protection, Bureau of Waste Prevention, 6th Floor, One Winter Street, Boston, MA 02108-4747.

Questions about this form and how to submit it should be directed to climate.strategies@state.ma.us or 617-574-6815.

3. M&V Report Forms

The *M&V Report* consists of eight (8) forms divided into three (3) parts, as follows:

Part 1. General Information Forms

- Form 1.1 – Coversheet
- Form 1.2 – General Information
- Form 1.3 – Attestations
- Form 1.4 – Project Sponsor Statement
- Form 1.5 – Disclosure of Greenhouse Gas Emissions Data Reporting

Part 2. Category-Specific Information and Documentation Forms

- Form 2.1 – Demonstration of Conformance with M&V Plan
- Form 2.2 – Determination of Emissions Reduction

Part 3. Independent Verification Form

- Form 3.1 – Independent Verifier Certification Statement and Report

Note that although some of the forms include embedded instructions, Project Sponsors are advised to consult the accompanying instructions packet for full instructions and documentation requirements.

Offset Project Name

Offset Project ID Code

Form 1.1 – Coversheet

Project Sponsor (RGGI COATS Authorized Account Representative)

Project Sponsor Organization

Reporting Period

RGGI COATS General Account Name

RGGI COATS General Account Number

Check the boxes below to indicate submission of the following required forms:

- Form 1.2 – General Information
- Form 1.3 – Attestations
- Form 1.4 – Project Sponsor Statement
- Form 1.5 – Disclosure of Greenhouse Gas Emissions Data Reporting
- Form 2.1 – Demonstration of Conformance with M&V Plan
- Form 2.2 – Determination of Emissions Reduction
- Form 3.1 – Independent Verifier Certification Statement and Report

Offset Project Name **Offset Project ID Code**

Form 1.2 – General Information

Project Sponsor (RGGI COATS Authorized Account Representative)

Telephone Number **Fax Number** **Email Address**

Street Address

City **State/Province** **Postal Code** **Country**

RGGI COATS General Account Name

RGGI COATS General Account Number

Name of Offset Project **Project Commencement Date**

Summary Description of Offset Project

Project City **Project County** **Project State**

Project Sponsor Organization

Primary Street Address

City **State/Province** **Postal Code** **Country**

Brief Description of Project Sponsor Organization

Telephone Number **Website URL**

Independent Verifier (Company/Organization) **States Where Verifier Accredited**

Primary Street Address **Website URL**

City **State/Province** **Postal Code** **Country**

Point of Contact for Project

Contact Telephone Number **Contact Fax Number** **Contact Email Address**

Contact Street Address

City **State/Province** **Postal Code** **Country**

Offset Project Name

Offset Project ID Code

Form 1.3 – Attestations

The undersigned offset Project Sponsor and licensed Professional Engineer (PE) certifies the truth of the following statements:

1. All offset projects for which the Project Sponsor has received CO₂ offset allowances, under the Project Sponsor's or project sponsor organization's ownership or control (or under the ownership or control of any entity which controls, is controlled by, or has common control with the Project Sponsor or project sponsor organization) are in compliance with all applicable requirements of the CO₂ Budget Trading Program in all participating states.
2. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this *M&V Report* and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Project Sponsor Signature

Date

Printed Name

Title

Organization

Offset Project Name

Offset Project ID Code

Form 1.3 – Attestations (continued)

<hr/> Licensed Professional Engineer Signature	<hr/> Date
<hr/> Printed Name	
Title	
License Number	
<hr/> License States	
Organization	

Offset Project Name

Offset Project ID Code

Form 1.4 – Project Sponsor Statement

The undersigned Project Sponsor hereby confirms and attests that the offset project upon which this *Monitoring and Verification Report* is based is in full compliance with all of the requirements of 310 CMR 7.70(10). The Project Sponsor holds the legal rights to the offset project, or has been granted the right to act on behalf of a party that holds the legal rights to the offset project. The Project Sponsor understands that eligibility for the award of CO₂ offset allowances under 310 CMR 7.70(10) is contingent on meeting the requirements of 310 CMR 7.70(10). The Project Sponsor authorizes MassDEP or its agent to audit this offset project for purposes of verifying that the offset project, including the Monitoring and Verification Plan, has been implemented as described in the *Consistency Application* that was the subject of a consistency determination by MassDEP. The Project Sponsor understands that this right to audit shall include the right to enter the physical location of the offset project and to make available to MassDEP or its agent any and all documentation relating to the offset project at MassDEP's request. The Project Sponsor submits to the legal jurisdiction of Massachusetts.

Project Sponsor Signature

Date

Printed Name

Title

Organization

Offset Project Name

Offset Project ID Code

Form 1.5 – Disclosure of Greenhouse Gas Emissions Data Reporting

Check the box below that applies:

- No greenhouse gas emissions data related to the offset project referenced in this *M&V Report* have been or will be reported to a voluntary or mandatory program other than the Massachusetts CO₂ Budget Trading Program.
- Greenhouse gas emissions data related to the offset project referenced in this *M&V Report* have been or will be reported to a voluntary or mandatory program other than the Massachusetts CO₂ Budget Trading Program. Information for all such programs to which greenhouse gas emissions data have been or will be reported is provided below.

Name of Program to which GHG Emissions Data Reported

Check all that apply:

- Reporting is currently ongoing
- Reporting was conducted in the past
- Reporting will be conducted in the future
- Reporting is mandatory
- Reporting is voluntary

Enter Frequency of Reporting

Enter Reporting Start Date

Program Contact Information – Address

Program Website

Categories of Emissions Data Reported

Name of Program to which GHG Emissions Data Reported

Check all that apply:

- Reporting is currently ongoing
- Reporting was conducted in the past
- Reporting will be conducted in the future
- Reporting is mandatory
- Reporting is voluntary

Enter Frequency of Reporting

Enter Reporting Start Date

Program Contact Information – Address

Program Website

Categories of Emissions Data Reported

Add extra pages as needed. Each attachment must include a header that indicates it is an attachment to Form 1.5, identifies the number of the appropriate table and the reference number in the left-hand column of the table, and includes the offset project name and offset project ID code. If attachments are being submitted as separate electronic documents, please include the form numbers in the file names of the documents.

Offset Project Name

Offset Project ID Code

Form 2.1 – Demonstration of Conformance with M&V Plan

Attach documentation that procedures and protocols specified in the M&V Plan were performed and records specified in the M&V Plan were generated and retained. Each attachment must include a header that indicates it is an attachment to Form 2.1 and includes the offset project name and offset project ID code. If attachments are being submitted as separate electronic documents, please include the form numbers in the file names of the documents.

Check the boxes below to indicate that the following required documentation is attached:

- 1. Documentation of Project Implementation (required only for first M&V Report, if applicable). Documentation of project implementation for projects not completed as of submission of *Consistency Application*, including:
 - A. Final post-installation equipment and materials specifications for as-installed offset project
 - B. Final post-installation building plans and technical schematics representing as-installed offset project
 - C. Final post-installation documentation of ECM installation for as-installed offset project
 - D. Confirmation of application of design intent statement for HVAC installation best practice (as applicable)
- 2. Quality Assurance/Quality Control (QA/QC) Report. Report documenting QA/QC of project monitoring and documentation during the reporting period.

Offset Project Name

Offset Project ID Code

Form 2.2 – Determination of Emissions Reductions

Provide documentation of reporting period energy use and CO₂ emissions reductions where indicated in the form or as an attachment, as directed below. Each attachment must include a header that indicates it is an attachment to Form 2.2 and includes the offset project name and offset project ID code. If attachments are being submitted as separate electronic documents, please include the form numbers in the file names of the documents.

	Natural Gas	Propane	Fuel Oil	Kerosene	Total
Baseline fuel use	<input type="text"/>				
Post-installation use	<input type="text"/>				
Annual energy use savings	<input type="text"/>				
Emissions factor	116.98	139.04	161.27	159.41	
Oxidation factor	0.995	0.995	0.99	0.99	
Emissions reductions	<input type="text"/>				

Check the boxes below to indicate that the following required documentation is attached:

- 1. Documentation of Energy Monitoring Approach. Narrative documentation of energy monitoring procedures used during reporting period to determine energy use for each building included in the offset project. If project eligible for use of representative sampling, copy of sampling protocol (for projects implementing similar energy conservation measures (ECMs) in multiple residential buildings).
- 2. Reporting Year Energy Use Data. Documentation of energy use for each building included in offset project.
- 3. Isolation of Energy Use. Documentation of isolation of energy use for each end-use or building system targeted by eligible ECMs.
- 4. Adjustments to Reporting Year Energy Use. Documentation of adjustments to address operating and weather conditions, as applicable.
- 5. Total Reporting Year Energy Use. Spreadsheet documenting calculation of total reporting year energy use.
- 6. Reporting Year CO₂ Emissions. Spreadsheet documenting calculation of reporting year CO₂ emissions

Offset Project Name

Offset Project ID Code

Form 3.1 – Independent Verifier Certification Statement and Report

An accredited verifier and licensed Professional Engineer (PE) must sign and date the form. Attach the accredited verifier report. The attached accredited verifier report must include a header that indicates it is an attachment to Form 3.1 and includes the offset project name and offset project ID code. If attachments are being submitted as separate electronic documents, please include the form numbers in the file names of the documents. Note that the Project Sponsor must retain the completed original copy of the *M&V Report* and attachments, including the verifier's original signed documents and the licensed PE's original signed documents. MassDEP reserves the right to request the original signed documents at any time.

Name of Accredited Independent Verifier

I certify that the accredited independent verifier identified above reviewed this *M&V Report*, including all forms and attachments, in its entirety, including a review of the following:

1. The verifier has reviewed the entire *M&V Report* and evaluated the contents of the report in relation to the applicable requirements of 310 CMR 7.70(10) and the required documentation that must be provided in the *M&V Report*.
2. The verifier has evaluated the adequacy and validity of information supplied by the Project Sponsor to determine CO₂-equivalent (CO₂e) emissions reductions in accordance with 310 CMR 7.70(10)(e)4, and the required documentation that must be provided in the *M&V Report*.
3. The verifier has evaluated the adequacy and consistency of methods used by the Project Sponsor to quantify, monitor, and verify CO₂-equivalent (CO₂e) emissions reductions in accordance with 310 CMR 7.70(10)(e)4, and the Monitoring and Verification Plan submitted as part of the *Consistency Application*.

A verification report is attached that documents the verifier's review of the items listed above and includes evaluation conclusions and findings.

<i>Offset Project Name</i>	<i>Offset Project ID Code</i>

Form 3.1 – Independent Verifier Certification Statement and Report (continued)

_____ Verifier Representative Signature	_____ Date
_____ Printed Name	
_____ Title	
Organization	

_____ Licensed Professional Engineer Signature	_____ Date
_____ Printed Name	
Title	
License Number	
_____ License States	
Organization	