

Regional Greenhouse Gas Initiative CO₂ Budget Trading Program



Offset Project Monitoring and Verification Report Forms

Reductions in Emission of SF₆

Version 1.0

Issued by CT Department of Environmental Protection

www.ct.gov/dep

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1. Overview

To demonstrate the achievement of CO₂-equivalent emissions reductions from an SF₆ offset project that has received a consistency determination from the Connecticut Department of Environmental Protection (“Department”), a Project Sponsor must submit to the Department in accordance with instructions (see accompanying instructions packet) a fully completed *Offset Project Monitoring and Verification Report – Reduction in Emissions of SF₆ Version 1.0* (“M&V Report”), consisting of the coversheet and all forms and related attachments. Following these instructions will ensure that the M&V Report contains all necessary information and is submitted properly.

The Project Sponsor should review the CO₂ Budget Trading Program regulations at (section 22a-174-31a of the Regulations of Connecticut State Agencies (“RCSA”) addressing offset projects and the award of CO₂ offset allowances. All offset project submittal materials and documents are available at www.ct.gov/dep/cwp/view.asp?a=2684&Q=440696&depNav_GID=1619.

2. Submission Instructions

Please complete this form and supporting documents in accordance with section 22a-174-31a of the RCSA (www.ct.gov/dep/lib/dep/air/regulations/mainregs/22a-174-31a.pdf), the RGGI Model Rule (www.rggi.org/model_rule_key_documents_link) and accompanying instructions to ensure the proper handling of your application. These instructions are not a substitute for the requirements of the relevant statutes and any regulations thereunder. You should review all applicable laws prior to completing this application. Remember, it is your responsibility to comply with all applicable laws. There is no fee associated with the submission of this application.

Submit one (1) complete paper hardcopy original and one (1) electronic copy of the M&V Report in the form of a CD disk. Submit hardcopies of forms requiring signatures as originally-signed copies and scan such signed forms for electronic submission. Facsimiles of the M&V Report are not acceptable under any circumstances.

ATTN: PAULA GOMEZ
CO2 BUDGET TRADING PROGRAM
BUREAU OF AIR MANAGEMENT
CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106-5127

If you have any questions about this application, please contact Paula Gomez at paula.gomez@ct.gov or at (860) 424-3088.

The M&V Report includes three 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, the offset project name, and offset project ID code.

The Project Sponsor should save an electronic copy for his or her file to serve as a reference for any necessary remediation.

3. M&V Report Forms

The M&V Report consists of eight (8) forms divided into three 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 the forms themselves include many embedded instructions, Project Sponsors are advised to consult the accompanying instructions packet for full instructions and documentation requirement.

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
<input type="text"/>	<input type="text"/>

Form 1.2 – General Information

Project Sponsor (RGGI COATS Authorized Account Representative)

Telephone Number	Fax Number	Email Address
<input type="text"/>	<input type="text"/>	<input type="text"/>

Street Address

City	State/Province	Postal Code	Country
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

RGGI COATS General Account Name

RGGI COATS General Account Number

Name of Offset Project	Project Commencement Date
<input type="text"/>	<input type="text"/>

Summary Description of Offset Project

Project City	Project County	Project State
<input type="text"/>	<input type="text"/>	<input type="text"/>

Project Sponsor Organization

Primary Street Address

City	State/Province	Postal Code	Country
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Brief Description of Project Sponsor Organization

Telephone Number	Website URL
<input type="text"/>	<input type="text"/>

Independent Verifier (Company/Organization)	States Where Verifier Accredited
<input type="text"/>	<input type="text"/>

Primary Street Address	Website URL
<input type="text"/>	<input type="text"/>

City	State/Province	Postal Code	Country
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Point of Contact for Project

Contact Telephone Number	Contact Fax Number	Contact Email Address
<input type="text"/>	<input type="text"/>	<input type="text"/>

Contact Street Address

City	State/Province	Postal Code	Country
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Offset Project Name

Offset Project ID Code

Form 1.3 – Attestations

The undersigned Project Sponsor certifies the truth of the following statements:

1. All offset projects for which the Project Sponsor or project sponsor organization 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.

Signature of Project Sponsor

____/____/_____
Date (MM/DD/YYYY)

Name of Project Sponsor (printed)

Title

Organization

Notary

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 section 22a-174-31a of the RCSA. 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 section 22a-174-31a of the RCSA is contingent on meeting the requirements of section 22a-174-31a of the RCSA. The Project Sponsor authorizes the Department 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 the Department. 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 the Department or its agent any and all documentation relating to the offset project at the Department's request. The Project Sponsor submits to the legal jurisdiction of Connecticut.

Signature of Project Sponsor

____/____/_____
Date (MM/DD/YYYY)

Name of Project Sponsor (printed)

Title

Organization

Notary

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 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 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.

Offset Project Name

Offset Project ID Code

Form 2.1 – Demonstration of Conformance with M&V Plan

Provide 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. Check the boxes in the tables below to indicate that the referenced documentation is provided as an attachment to Form 2.1. All attached documentation must include a header that indicates it is an attachment to Form 2.1, identifies the appropriate table number and the reference number in the left-hand column of the table, and includes the offset project name and offset project ID code.

Table 1. SF₆ Inventory Management and Auditing Protocol

Procedures and Documentation Required by the M&V Plan	Documentation Provided (check the boxes to indicate attachment of required documentation)
SF₆ Inventory Management and Auditing Protocol	
1. Procedures for records retention	<input type="checkbox"/> A list of all records retained
2. Procedures for the maintenance of cylinder-specific logs, including maintenance of a master sheet identifying all cylinders using unique identifiers, and a standardized cylinder log form	<input type="checkbox"/> Copy of master sheet identifying all cylinders <input type="checkbox"/> Copy of one representative completed standardized cylinder log form for each substation or other designated location
3. Procedures for confirming meters and scales for the filling and weighing of cylinders are consistently calibrated to manufacturer specifications	<input type="checkbox"/> Demonstration that meters and scales are consistently calibrated to manufacturer recommendations (e.g., dated receipts of calibration activities, etc.)
4. An entity-wide training plan for the inventory management team in the use of the Entity-wide SF ₆ Inventory Tracking System as a data source, the use of the SF ₆ mass-balance method, and recordkeeping and retention practices	<input type="checkbox"/> Copies of training records (e.g., presentations or training materials and signed attendance lists) for training in the use of the Entity-wide SF ₆ Inventory Tracking System as a data source, the use of the SF ₆ mass balance method, and recordkeeping and record retention practices
5. Procedures for audits of all aspects of inventory management, including all inventory tracking systems, data entry, and maintenance of cylinder logs	<input type="checkbox"/> Copies of training records (e.g., presentations or training materials and signed attendance records) for training in auditing procedures
6. A template for a report on the findings of audits including identification of needs for corrective actions that should be taken	<input type="checkbox"/> Copies of the reported findings of audits performed, including the date of audits and any corrective actions that were taken

Offset Project Name

Offset Project ID Code

Table 2. Quality Assurance/Quality Control (QA/QC) Protocol

Procedures and Documentation Required by the M&V Plan	Documentation Provided (check the boxes to indicate attachment of required documentation)
Quality Assurance/Quality Control (QA/QC) Protocol	
1. QA/QC procedures for: (i) entity-wide inventory of SF ₆ gas procurements and disbursements; (ii) entity-wide inventory of all SF ₆ -containing operating equipment; (iii) all cylinder logs; and (iv) emissions calculations	<input type="checkbox"/> A copy of the annual quality assurance and quality control report that describes all procedures taken to QA/QC the following in accordance with the M&V Plan: (i) entity-wide SF ₆ gas procurements and disbursements; (ii) entity-wide inventory of all SF ₆ -containing operating equipment; (iii) all cylinder logs; and (iv) review of emissions calculations
2. An entity-wide training plan for QA/QC officers	<input type="checkbox"/> Copies of training records (e.g., presentations or training materials and signed attendance records) for training in QA/QC procedures

Offset Project Name

Offset Project ID Code

Form 2.2 – Determination of Emissions Reduction

Provide the Entity-wide SF₆ Inventory Tracking System for the reporting year as an attachment to Form 2.2. The 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. Using data from the Entity-wide SF₆ Inventory Tracking System, enter the requested information below:

1. Enter SF₆ emissions in baseline year (lbs):
2. Enter SF₆ emissions in reporting year (lbs):

Enter the following data (all SF₆ values in lbs):

V_{iby} = SF₆ inventory in cylinders, gas carts, and other storage containers (not SF₆-containing operating equipment) at the beginning of the reporting year

V_{iey} = SF₆ inventory in cylinders, gas carts, and other storage containers (not SF₆-containing operating equipment) at the end of the reporting year

= **Change in SF₆ Inventory in cylinders, gas carts, and other storage containers (not SF₆-containing operating equipment) (V_{iby} - V_{iey})**

PA_{psd} = SF₆ purchased from suppliers or distributors in cylinders

PA_e = SF₆ provided by equipment manufacturers with or inside SF₆-containing operating equipment

PA_{rre} = SF₆ returned to the reporting entity after off-site recycling

= **Total Purchases/Acquisitions (PA_{psd} + PA_e + PA_{rre})**

SD_{op} = Sales of SF₆ to other parties, including gas left in SF₆-containing operating equipment that is sold

SD_{rs} = Returns of SF₆ to supplier (producer or distributor)

SD_{df} = SF₆ sent to destruction facilities

SD_{sor} = SF₆ sent off-site for recycling

= **Total Sales/Disbursements (SD_{op} + SD_{rs} + SD_{df} + SD_{sor})**

CNP_{ne} = Total SF₆ nameplate capacity of new SF₆-containing operating equipment at proper full charge

CNP_{rse} = Total SF₆ nameplate capacity of retired SF₆-containing operating equipment at proper full charge

= **Total Change in SF₆ Nameplate Capacity (CNP_{ne} - CNP_{rse})**

= **Total SF₆ Emissions [(V_{iby} - V_{iey}) + (PA_{psd} + PA_e + PA_{rre}) - (SD_{op} + SD_{rs} + SD_{df} + SD_{sor}) - (CNP_{ne} - CNP_{rse})]**

3. Enter emissions reduction (short tons CO₂e) (emissions in reporting year (lbs) – emissions in baseline year (lbs)) X GWP of SF₆ (22,200)/2000:

Offset Project Name

Offset Project ID Code

Form 3.1 – Independent Verifier Certification Statement and Report

An accredited independent verifier must sign and date the form. Attach the accredited verifier report. The attached 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

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 section 22a-174-31a of the RCSA 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 emissions reductions in accordance with subsection 22a-174-31a(e) of the RCSA, 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 emissions reductions in accordance with subsection 22a-174-31a(e) of the RCSA 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.

Signature of Verifier Representative

____/____/_____
Date (MM/DD/YYYY)

Name of Verifier Representative (printed)

Title

Notary