Verification Report for
CommonWealth Bethlehem Energy, LLC
North Country LFG Utilization Project
Bethlehem, New Hampshire

October 20, 2010

Prepared by: **First Environment, Inc.**
91 Fulton Street
Boonton, New Jersey 07005

TABLE OF CONTENTS

1. Introduction

This report is provided to CommonWealth Bethlehem Energy LLC (CBE), a wholly owned subsidiary of CommonWealth Resource Management Corporation (CRMC), as a deliverable of the Chicago Climate Exchange's (CCX) and American Carbon Registry's (ACR) project verification processes. This report covers the verification of landfill gas (LFG) destruction emissions reductions for the period from January 1 through June 30, 2010 for the North Country LFG Utilization Project (the Project). First Environment, Inc. (First Environment) performed the verification from July through October 2010.

CBE asserts that 59,098 metric tonnes of CO_2 equivalents are eligible for registration with the ACR or 35,398 metric tonnes of CO_2 equivalents are eligible for registration with the CCX. Emission reductions will only be registered with one of the programs at any given time, either the ACR or the CCX, to ensure no double-counting. The emissions reductions were quantified in accordance with the *CCX® Project Guidelines: Landfill Gas Version 1, February 2, 2004* and the revised *ACR Monitoring, Reporting, and Verification Protocol (MRV CBE 2005 15), May 2009* and were verified against these standards. The verification process was conducted according to the *CCX Offset Program Verification Guidance Document, January 21, 2010* and the *ACR Verification Guideline for GHG Projects, Version 1.0, July 2010*, including other greenhouse gas (GHG) accounting best practices such as the ISO 14064-Part 3 standard.

As owners and operators of the Project, CBE represented the Project during verification and addressed all requests for documentation, clarification, and corrective action. First Environment served as the verifier for the Project for this reporting period. Contact information is provided below:

CommonWealth Bethlehem Energy LLC
Anton Finelli
199 Corey Street
Boston, Massachusetts 02132
(617) 327-8146

First Environment, Inc.
91 Fulton Street
Boonton, New Jersey 07005
(973) 334-0003

2. Objectives

The purpose of this verification was, through review of appropriate evidence, to establish that:

- the project conforms to the requirements of the verification criteria discussed in Section 4; and
- the data reported are accurate, complete, consistent, transparent and free of material error or omission.

3. Verification Scope

The scope of the verification is outlined in the table below:

Geographic Boundaries	North Country Environmental Systems Landfill, Bethlehem, NH
Greenhouse Gases Verified	Emissions Offsets (expressed in units of Carbon Dioxide equivalents (CO_2-e)) resulting from the capture and destruction of methane
Reporting Years	January 1, 2010 through June 30, 2010[1]
Data Sources	Metered Data and Emissions Offset Estimates

4. Standards Used to Certify Emissions

The following table outlines the guidance and protocols used to conduct this verification:

Verification Process	CCX Offset Program Verification Guidance Document, January 21, 2010 and the ACR Verification Guideline for GHG Projects, Version 1.0, July 2010
Standard of Verification	CCX Project Guidelines: Landfill Gas Version 1, February 2, 2004 as amended (see Attachment A), ACR Monitoring, Reporting and Verification Protocol (MRV CBE 2005 15), May 2009
Level of Assurance	Reasonable assurance
Materiality	Misstatements greater than five percent of the GHG assertion are considered material

5. Overview of the Verification Process

The verification process for the Project was as follows:

- conflict of interest review;
- selection of Audit Team;
- kick-off conference call with CBE;
- development of the verification plan;
- site visit;
- review and evaluation of raw data and calculations for period under review;
- follow-up interaction with CBE for corrective action or supplemental data as necessary; and
- final statements and report development.

The verification process was utilized to gain an understanding of the Project's emission sources and reductions, to evaluate and verify the collection and handling of data, the calculations that lead to the results, and the means for reporting the associated data and results.

[1] Flow total from June 30, 2010 includes approximately 11 hours of flow data from July 1, 2010 based on the date and time of the weekly totalizer reading.

5.1 Conflict of Interest Review

Prior to beginning any verification project, First Environment conducts an evaluation to identify any potential conflicts of interest associated with the project. No potential conflicts were found for this Project.

5.2 Audit Team

First Environment's Audit Team consisted of the following individuals who were selected based on their verification experience as well as familiarity with landfill operations.

Lead Verifier – Iris Caldwell
Verifier – Heather Moore
Verifier – Jeff Daley
Internal Reviewer – Jay Wintergreen

5.3 Audit Kick Off

The verification audit was initiated with a kick-off conference call on July 23, 2010 between First Environment and the primary CRMC contact, Thomas Yeransian. The communication focused on confirming the verification scope, objectives, criteria, schedule, and the data required for the verification.

5.4 Development of Verification plan

The team formally documented its verification plan as well as determined the data-sampling plan. The verification plan was developed based on discussion of key elements of the verification process during the kick-off meeting and review of the MRV CBE 2005 15. CBE was afforded the opportunity to comment on key elements of the plan for verification. Based on items discussed and agreed upon with CBE, the plan identified the First Environment team members, project level of assurance, materiality threshold, and standards of evaluation and reporting for the verification. It also provided an outline of the verification process, established project deliverables, and presented a data-sampling plan designed to review all project elements in areas of potentially high risk of inaccuracy or non-conformance. The plan was provided to CBE on July 27, 2010.

5.5 Site Visit

First Environment performed a site visit on May 5, 2010 as part of the previous verification process. The site visit included review of site operations, data collection processes, and information management systems, as well as interviews with key project personnel. CRMC confirmed during the kick-off meeting that no significant operational or data management changes had occurred since the site visit; therefore, a repeat site visit for this verification period was deemed unnecessary.

5.6 Emissions Reduction Data and Calculation Assessment

This assessment used information and insights gained during the previous steps to evaluate the collected data and the reported emissions reduction quantities, and identify if either contained material or immaterial misstatements.

5.7 Corrective Actions and Supplemental Information

The Audit Team issued requests for clarification and corrective action as discussed in further detail in Section 7. Through communications with the Audit Team, CBE was able to adequately resolve all requests.

5.8 Verification Reporting

Verification reporting, represented by this report and additional audit statements, documents the verification process and identifies its finding and results. Verification reporting consists of this report for CBE, project attestation for the ACR, and a verification statement and attestation to be submitted to the CCX.

6. Site's Conformance With Verification Protocols

6.1 Site Overview

The North Country Environmental Systems Landfill (the Landfill) contains a network of vertical and horizontal well, laterals, and header pipes to actively extract LFG. The original LFG collection system was installed in 1998 and has since been expanded multiple times, including in 2001 when the Landfill installed a leachate evaporation facility and later condensate evaporation system. The Project under ACR is defined as the capture and destruction of LFG from the original active collection system and all subsequent expansions. The Project under CCX is defined as the capture and destruction of LFG from the expanded 2001 system and all subsequent expansions.

The Project includes two flares – an enclosed flare that was used to generate the heat energy for the leachate and condensate evaporation system and an open flare used as backup. Although the evaporation system is still in place, the evaporation of leachate and condensate was discontinued in March 2007. Both flares were in use during the current reporting period; however, the enclosed flare was only in operation during the month of January, after which time the open flare was used solely.

The Landfill is owned by North Country Environmental Systems, Inc. (NCES). NCES granted CRMC Bethlehem, LLC the right to extract and utilize the LFG in an agreement dated September 10, 1998. CRMC Bethlehem, LLC subsequently entered into a LFG purchase agreement with CBE on September 8, 2000 whereby CBE was given the right to claim emissions credits from the destruction of LFG. First Environment reviewed these agreements in order to confirm ownership of carbon credits associated with the Project.

The Landfill has a design capacity of greater than 2.5 million megagrams. The most recent non-methane organic compound (NMOC) sampling conducted at the Landfill in 2009 indicated a NMOC emission rate less than 50 megagrams per year; therefore, the Landfill is not subject to the New Source Performance Standard (NSPS) requirements to collect and control LFG. First Environment reviewed this emission rate report as well as recent facility inspection reports, permits, and the Landfill's operating plan, which indicated that the regulatory additionality arguments presented in the MRV CBE 2005 15 are still valid and the project is not mandated by local, state, or federal regulations.

The MRV CBE 2005 15 provides additional details regarding the Landfill and the gas collection and control system.

6.2 Data Collection and Monitoring Processes

The Audit Team discussed the following topics with project personnel during the site visit on May 5, 2010, performed during the previous verification of the Project, and confirmed the information during the current verification process:

- the data collection process to generate reports, and
- internal documents and protocols that set guidelines for the data collection process.

The information gathered during these discussions was used to assess the Project's management systems and its controls for sources of potential errors and omissions. The primary aspects of the Project's monitoring plan are described below.

The LFG from the header pipes passes through a knock-out tank to remove condensate and then through a blower to the flares. There are two Thermal Instruments Model 62-9 flow meters located after the blower, which continuously measure flow to the flares. The flow meters correct to standard conditions of 68 degrees Fahrenheit and one atmosphere of pressure. Flow data are recorded using a Honeywell chart recorder as well as a Yokogawa totalizer. From January 1, 2010 to January 29, 2010, the flow was monitored separately from two parallel pipes – one leading to the open flare and the other to the enclosed flare. As such, the Honeywell chart recorder recorded flow to the open flare, while the Yokogawa totalizer recorded flow to the enclosed flare. After January 29, 2010, LFG was only routed to the open flare and flow was recorded by the Honeywell chart recorder. Circle charts are changed weekly and stored on site. Totalizer readings are taken approximately weekly from both recording devices, recorded in the well monitoring report, and provided to CBE.

The flow meters were factory calibrated in March 2001 and are field checked at least quarterly using a pitot tube. During this verification period, the Yokogawa totalizer was last field checked on December 21, 2009. The flow meters were field checked using a pitot tube on January 2, March 25, April 22, May 27, and June 1, 2010. The results of the pitot tube tests indicate the flow meters were operating within plus or minus five percent of their readings.

Methane content readings are taken approximately weekly using a Landtec GEM-2000 portable gas analyzer. The sample port is located immediately before the blowers. The methane content readings are recorded in the well monitoring reports and provided to CBE.

The Landtec GEM-2000 portable gas analyzer is checked against a gas of known concentration prior to each use, as indicated on the Well Balancing Calibration Log. Additionally, the analyzer is factory calibrated twice per year. The Landtec GEM-2000 analyzer was factory calibrated on July 29, 2010. The field checks and calibration indicated the instrument was performing accurately.

Operation of the enclosed flare is monitored by an ultraviolet eye and thermocouple. Operation of the open flare is monitored by a thermocouple. If the ultraviolet eye does not detect a flame, the enclosed flare temperature drops below 1400°F, or the open flare temperature drops below 100°F, the blowers automatically shut down and an automatic valve prevents LFG flow from passing through the flow meters.

6.3 Emissions Reduction Calculation Assessment

As part of the emissions reduction calculation assessment, the Project's assumptions and calculations were reviewed. Consistent with the MRV CBE 2005 15, the baseline scenario is defined as the unmitigated release of methane from the Landfill for the emissions reduction calculation under ACR. Meanwhile, under CCX, the Project's baseline year is considered 1998. Therefore, emissions from the pre-2001 system were deducted from the total amount of project emission reductions, as approved by CCX.

Total methane destroyed by the Project was calculated by multiplying the difference of flow between the totalizer readings from the beginning and end of a monitoring period by the average of the methane readings taken during the same period. In January, when both flares and flow meters were being utilized, the sum of the totalizer differences from both recording devices was multiplied by the average of the methane readings taken during the same period. For the remaining reporting period, when only the open flare was in operation, weekly flow totals were determined from the Honeywell chart recorder totalizer readings. Consistent with the MRV CBE 2005 15, a 98 percent flare destruction efficiency was applied to total methane destroyed over the verification period in the ACR calculations. In accordance with CCX, no deduction is taken for flare efficiency in the CCX calculations.

The calculations provided separately for ACR and CCX were each tested for accuracy. The formulas were tested to ensure they were consistent with the calculation methodologies described in each of the protocols. Copies of the raw data used in the calculations were compared with the data used in the final calculations and tested for transcription and mathematical errors. All raw data from the Honeywell Chart recorder, Yokogawa totalizer, and portable gas analyzer were reviewed. First Environment performed recalculations of emissions reductions for the entire verification period to assess whether they were free of material misstatement.

6.4 CCX® Project Standards

The CCX provides project guidance for landfill gas offset and early action credit projects. This guidance document, *CCX® Project Guidelines: Landfill Gas Version 1*, outlines specific requirements that acceptable projects must meet in order to qualify for credits. The following table lists these specific requirements and identifies how the Project meets those requirements:

Guideline Requirement	Site Compliance	Method of Evaluation	Comments
Eligibility			
Project Proponent has title to the GHG mitigation rights.	Yes	Review of project documentation	CBE has rights to emissions credits from the Project per the September 2000 purchase agreement.
Confirm Project began on or after January 1, 1999.	Yes	Review of project documentation	Previously verified.
Confirm the Project is not required by federal, state, local law or other legally binding framework	Yes	Review of project documentation	Previously verified.

Guideline Requirement	Site Compliance	Method of Evaluation	Comments
LFG Flow Rate			
Measurement at control device not individual wells.	Yes	Site visit (May 5, 2010)	Flow is measured upstream of the flares and downstream of the blowers. CBE confirmed that no operational changes have occurred since previous site visit.
Flow meter type and date of installation.	Yes	Site visit (May 5, 2010) and review of project documentation	The flow is measured using one of two Thermal Instruments Model 62-9 flow meters installed in March 2001. CBE confirmed that no operational changes have occurred since previous site visit.
Flow meter upstream of control device and downstream of blower.	Yes	Site visit (May 5, 2010)	Placement is sufficient to ensure laminar flow. CBE confirmed that no operational changes have occurred since previous site visit.
Records on flow meter calibration.	Yes	Review of project documentation	The first calibration of the flow meter occurred at Project start up and records are kept on and off site. The flow meter was field checked using a pitot tube attached to a manometer that is inserted into the LFG flow near the flow meter. Records of dates and results of field calibrations were reviewed by First Environment.
Capable of recording flow every 15 min.	Yes	Review of project documentation	Flow data is monitored continuously. Flow data is recorded on Honeywell circle charts and aggregated in two-minute intervals by the Yokogawa totalizer.
Shutdown hours recorded and flow data adjusted.	Yes	Review of project documentation	The automatic shut-off mechanisms ensure that the flow meters only capture actual flow to the operating flares.
Monthly tabulations of daily LFG flow rate.	Yes	Review of project documentation	For the purpose of quantification, flow data is tabulated on a weekly basis. Daily flow totals can be obtained from the Honeywell circle charts and by summing the Yokogawa two-minute totalizer data.

Guideline Requirement	Site Compliance	Method of Evaluation	Comments
Methane Concentration			
Location of methane concentration measurements.	Yes	Site visit (May 5, 2010) and review of project documentation	The methane concentration is measured near the same point as LFG flow using a GEM-2000 portable gas analyzer. CBE confirmed that no operational changes have occurred since previous site visit.
Methane concentration measured on monthly basis.	Yes	Review of project documentation	The methane concentration is measured approximately weekly.
Measuring instrument calibrated.	Yes	Review of project documentation	The GEM-2000 portable gas analyzer is field checked against a gas of known concentration prior to each use and is sent for factory calibration twice per year.

6.5 ACR Protocol MRV CBE 2005 15

The MRV CBE 2005 15 document outlines specific requirements that the Project must meet in order to be verified. The following table lists these requirements and identifies how the Project meets them:

Project Boundaries:	The project boundaries are consistent with those described in the MRV CBE 2005 15.
Additionality & Leakage:	First Environment previously verified that the Project is not required by NSPS regulations. All other additionality assertions made by the Project were verified by ACR and are outlined in the MRV CBE 2005 15. No leakage of emissions outside the project boundaries was identified.
Baseline:	The baseline is unmitigated release of all methane.
Monitoring, Data Collection, & Methodology:	In general, procedures were consistent with the MRV CBE 2005 15. These procedures were discussed in greater detail in previous sections of this report.
Quality Control, Reporting, Documentation, & Uncertainties:	Quality control, reporting, and documentation procedures followed were consistent with the MRV CBE 2005 15.

7. Audit Results

CBE provided good documentation for its emissions estimates as well as its procedures surrounding the data collection process. To complete the verification process, First Environment requested one corrective action and one clarification. The responses provided by

CBE were sufficient to resolve the issues raised by the Audit Team. First Environment's requests and CBE's responses are summarized in the table below:

ID	Clarification (CL) or Correct Action Request (CAR)	Participant Response	Verification Conclusion
CAR-1	The January 1, 2010 landfill gas flow total from the Yokogawa DAQExplorer was incorrectly included in the January 4, 2010 flow total. Please revise emissions reduction calculations as necessary.	CBE clarified how the totalizer value from January 1, 2010 was subtracted from the January 4, 2010 total to ensure that the quantity was not double-counted.	Response is acceptable.
CL-1	Please clarify the source of methane data and totalizer readings for May 5, 2010 and June 3, 2010.	CBE provided copies of the methane and totalizer data for both May 5, 2010 and June 3, 2010.	Response is acceptable.

The calculations were consistent with the CCX and MRV CBE 2005 15 methodologies. CBE has adequate management and operational systems in place with respect to monitoring and reporting, as determined through observation during the site visit during the previous verification and desktop review of project documentation from the current reporting period.

Verified results show 59,098 metric tonnes of CO_2 equivalents eligible for registration with the ACR or 35,398 metric tonnes of CO_2 equivalents eligible for registration with the CCX.

8. General Conclusion

Based on the assessment performed and the evidence collected, First Environment concludes that the Project GHG emissions reductions due to the flaring of landfill gas for the period of January 1 through June 30, 2010, can be considered:

- consistent with the *CCX Project Guidelines: Landfill Gas, Version 1, February 2, 2004,* the ACR *Monitoring, Reporting and Verification Protocol, MRV CBE 2005 15*, *May 2009*;
- without material discrepancy; and
- meeting the minimum level of accuracy of at least 95 percent.

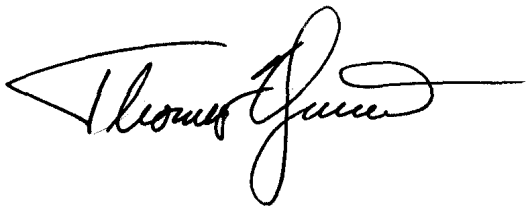
First Environment provides reasonable assurance as to the accuracy of the emissions reduction estimates for this period.

American Carbon Registry Attestation Statement

As an officer of CommonWealth Bethlehem Energy LLC (CBE), I hereby certify that the emissions reductions reported in connection with methane capture and combustion have been calculated according to the methods and procedures as outlined and described in the MRV Protocol and are a true representation of the emission performance of the Project.

Thomas Yeransian
Name

Principal of CRMC, the sole member of CBE
Title



Signature Date: September 13, 2010

CCX
Chicago Climate Exchange

Verification Statement

This statement confirms that First Environment, Inc. (CCX-Approved Verifier) has evaluated the GHG assertion by CommonWealth Bethlehem Energy LLC (Project Proponent) covering the period from 01/01/10 to 06/30/10 according to the protocols outlined by the Chicago Climate Exchange and that this verification statement is consistent with ISO 14064-3:2006.

First Environment, Inc. confirms all verification activities as documented in the verification report entitled Verification Report for the North Country LFG Utilization Project and dated 09/13/10 are complete and concludes without any qualification or limiting conditions that the GHG assertion by CommonWealth Bethlehem Energy LLC is without material discrepancy and that the verification activities provide a reasonable level of assurance as defined by CCX program rules.

The GHG assertion provided by CommonWealth Bethlehem Energy LLC has resulted in the removal, emission reduction, or removal enhancement of:

CCX Vintage:	2010	Metric Tons CO_2e:	35,398
Beginning (mm/dd/yy):	01/01/10		
End (mm/dd/yy):	06/30/10		
CCX Vintage:		Metric Tons CO_2e:	
Beginning (mm/dd/yy):			
End (mm/dd/yy):			
CCX Vintage:		Metric Tons CO_2e:	
Beginning (mm/dd/yy):			
End (mm/dd/yy):			

(Repeat for each vintage verified)

Attestation:

Iris Caldwell
Lead Verifier (Print Name)

Lead Verifier (Signature)
Engineer II
Title

Date 9/13/10

James Wintergreen
Senior Internal Reviewer (Print Name)

Senior Internal Reviewer (Signature)
Senior Associate
Title

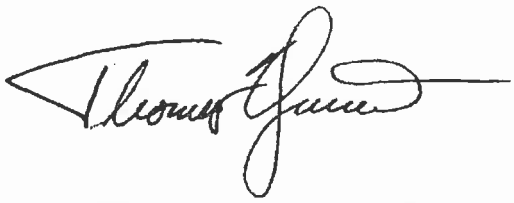
Date 9/13/10

Project Proponent Authorization:

I, CommonWealth Bethlehem Energy LLC, a wholly owned subsidiary of CommonWealth Resource Management Corporation (CCX member), authorize the above-named verifier to submit this Verification Evaluation to the Chicago Climate Exchange.

Thomas Yeransian
Member Representative (Print Name)

CCX Chicago Climate Exchange



Member Representative (Signature)
09/13/10
Date (mm/dd/yy)

ATTACHMENT A

Chicago Climate Exchange

CCX Advisory 2008 - 15

MEMO TO: CCX Members

FROM: Nathan Clark, Director – Emission Offsets

DATE: October 2, 2008

Re: Revisions to CCX Rulebook Chapter 9

Chicago Climate Exchange (CCX) has recently made several changes and clarifications to Chapter 9 of the CCX Rulebook. These rule changes are effective as of September 9, 2008. The following is a summary of those modifications:

- Entities with emissions greater than 10,000 metric tons of CO_2 equivalent per year during their most recent complete calendar year must enroll in CCX as an emitting Member and commit to the CCX reduction schedule in order to be eligible to earn CCX Offsets. Entities with emissions less than 10,000 metric tons CO_2 equivalent per year may register offsets with CCX without committing to the reduction commitment. (Reference: Rulebook section 9.1)

- The project accounting approach has been amended for methane capture and destruction projects where project related CO_2 emissions from the combustion of methane are biogenic in nature. As a result, the emission reductions for affected project types increases from 18.25 to 21 metric tons CO_2 per metric ton of methane captured and destroyed. (Reference: Rulebook section 9.7.1)

- At this time hydropower projects are ineligible in CCX. A methodology to address eligibility, sustainability and project accounting for hydro-electric power projects was considered by CCX. Included in the methodology for hydropower projects was a requirement for a sustainability assessment. With a view to adopting a sustainability protocol with broad acceptance, CCX continues to monitor the stakeholder consultation efforts of the International Hydropower Association. CCX will notify members should a determination on the eligibility of hydropower projects be made.

- The scope of eligible projects for the capture and destruction of Ozone Depleting Substances (ODS) has been expanded to include ODS from any country where production of ODS is phased out, importation is not allowed, and destruction is not required by law. These requirements match the existing circumstances found in the U.S. (Reference Rulebook section 9.13.1)

- The crediting rate for renewable energy generation projects has been changed from a standard value of 0.4 metric tons per MWh to region-specific values as determined by

the U.S. EPA's Emissions and Generation Resource Integrated Database (eGRID) tool. (Reference Rulebook section 9.12.5)

- The rule regarding issuance of offsets produced by eligible facilities using renewable fuel along with, or in place of, non-renewable fuel has been clarified to establish a methodology for determining emission reductions on an energy equivalent basis. (Reference Rulebook section 9.12.3.1)

- In reference to CDM project and methodology eligibility, the following project types are not eligible to be registered on CCX unless the project also satisfies the CCX project methodologies:
  - Hydro power
  - Forestry
  - Other CDM-approved projects or methodologies that result in net increases in emissions to the atmosphere relative to the pre-project period.

  (Reference Rulebook section 9.6.1.4)

- The rulebook now contains revised language on the eligibility requirements for the capture of methane at active and abandoned coalmine operations (Reference Rulebook section 9.7.3), and a correction of the listing of fallow-eligible counties in Montana (Reference Rulebook section 9.3A)

- Finally, CCX added/amended language in certain rules or their related footnotes to provide clarification. (Reference: Rulebook section 9.1, 9.7.1.1 and 9.12.2)

The CCX Rulebook is available to Members in their registries and Chapter 9 is also posted on the CCX webpage.