

VERIFICATION REPORT

DEMPSEY RIDGE WIND PROJECT



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Summary:

Dempsey Ridge Wind Farm, LLC. (Project Proponent) commissioned Conestoga-Rovers & Associates Limited (CRA) to perform the third verification of the Dempsey Ridge Wind Project, VCS Project ID: 780 (Project Activity) located near Cheyenne, Oklahoma, U.S.A. The third verification period extends from 01 January 2014 through 31 December 2014.

The Project Activity consists of the installation and operation of 66 Gamesa G90/2000-IEC II A, 2.0 MW turbines for a total rated nameplate capacity of 132 MW. The turbines are located over an area of approximately 7,500 acres of rural and agricultural/grazing lands. Electricity generated by the turbines is upgraded from a 34.5 kilovolt (kV) collection line rating to a 230 kV rating at the Project Activity's substation and then transferred via approximately 15 miles of transmission line to the Sweetwater Substation (Point of Interconnection, POI) where the electricity is then delivered to the Southwest Power Pool (SPP) grid. The Project Activity's intent is to generate electricity from renewable sources and therefore displace electricity that otherwise would have been produced for or distributed to the SPP grid in the absence of the Project Activity.

The Project Proponent utilizes the United Nations Framework Convention on Climate Change (UNFCCC) Clean Development Mechanism (CDM) methodology entitled: "Consolidated baseline methodology for grid connected electricity generation from renewable sources (ACM0002), Version 12.1.0", which is valid from September 17, 2010 to May 10, 2012. This methodology has been accepted for use by the VCS.

The scope of this verification is such that CRA, as an independent third party recognized as a Validation and Verification Body by the VCS (Registration Number 027) is responsible for reviewing the VCS Monitoring Report including accompanying materials, the previous VCS Validation Report, and the VCS Project Document (PD) including the monitoring plan, baseline assessment, and any supporting documentation. CRA utilized a risk based analysis against the relevant requirements of both the interpretation from the CDM and of VCS Program Guide Version 3.5 and VCS Standard Version 3.5 as applicable.

As part of the verification process, CRA reviewed the completeness, conservativeness, and accuracy of the underlying evidence for the assumptions and claims made, and data sources used. The results of this investigation were then, together with the results of the review of other areas, combined to form the necessary input for the verification report and opinion.

The verification report and associated annexes document a total of seventeen (17) findings which include:

- Zero (0) Corrective Action Requests (CARs)
- Seventeen (17) Clarification Requests (CLs)
- Zero (0) Forward Action Request (FARs)

Upon review of the documentation and explanations provided by the Project Proponent, all CL findings were closed in a clear and transparent manner.

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1 INTRODUCTION

1.1 Objective

Dempsey Ridge Wind Farm, LLC (Project Proponent) commissioned Conestoga-Rovers & Associates Limited (CRA) to complete an independent third party verification for the registered Verified Carbon Standard (VCS) project entitled:

- Dempsey Ridge Wind Project located near Cheyenne, Oklahoma, U.S.A., VCS Project ID: 780. (Project Activity)

CRA completed the verification pursuant to the relevant requirements of the VCS guidance (VCS Program Guide, Version 3.5, and VCS Standard, Version 3.5) as well as translational guidance from the United Nations Framework Convention on Climate Change (UNFCCC) Clean Development Mechanism (CDM). As detailed in Section 5.1.1 of the VCS Standard Version 3.5, "Verification is the periodic ex-post independent assessment by a validation/verification body of the GHG emission reductions and removals that have occurred as a result of the project during the monitoring period, conducted in accordance with the VCS rules." The objective of CRA, on behalf of the VCS, is to ensure that only Project Activities that meet the established criteria receive a positive and unconditional verification statement. Specifically, the criteria states that the registered Project Activity must result in emission reductions that are:

- Relevant
- Complete
- Consistent
- Accurate
- Transparent
- Conservative

In the verification of this VCS Project Activity, CRA used a risk-based verification approach to focus and determine the detailed scope of the verification. The VCS and the CDM are rules-based mechanisms; CRA has ensured that the rules for requesting registration as a proposed VCS Project Activity are complied with, in accordance with the VCS Program Guide Version 3.5, and the VCS Standard Version 3.5.

The key risks associated with the project design, baseline, monitoring plan, emission reduction estimates, environmental impacts, and stakeholder comments are elements that are critical for meeting VCS criteria for achieving real, measurable, permanent, additional, independently audited, unique, transparent, and conservative greenhouse gas (GHG) reductions.

1.2 Scope and Criteria

The Project Proponent commissioned CRA to perform the independent third party verification for the third monitoring period (01 January 2014 through 31 December 2014) of the registered Project Activity, which is located near Cheyenne, Oklahoma, U.S.A.

Utilizing a risk-based approach as part of the verification process, CRA reviewed the completeness, conservativeness, and accuracy of the underlying evidence for the assumptions and claims made, and data sources used. The results of this investigation then, together with the results of the review of other areas, gave the necessary input for the verification opinion which is completed pursuant to guidance provided within the VCS Program Guide Version 3.5, and the VCS Standard Version 3.5.

1.3 Level of Assurance

CRA has conducted the verification activities and has prepared this report to a reasonable level of assurance with a maximum allowable materiality threshold of 5 percent as outlined in Section 5.3.1 of the VCS Standard, Version 3.5 for projects.

1.4 Summary Description of the Project

The Project Activity consists of the installation and operation of 66 Gamesa G90/2000-IEC II A, 2.0 MW turbines for a total rated nameplate capacity of 132 MW. The turbines are located over an area of approximately 7,500 acres of rural and agricultural/grazing lands near Cheyenne, Oklahoma, U.S.A. Electricity generated by the turbines is upgraded from a 34.5 kilovolt (kV) collection line rating to a 230 kV rating at the Project Activity's substation and then transferred via approximately 15 miles of transmission line to the Point of Interconnection (POI) at the Sweetwater Substation where the electricity is then delivered to the Southwest Power Pool (SPP) grid. The Sweetwater substation is owned and operated by American Electric Power (AEP) West, which is an electric utility that is a member of SPP. The Project Activity's intent is to generate electricity from renewable sources and therefore displace electricity that otherwise would have been produced for or distributed to the SPP grid in the absence of the Project Activity.

2 VERIFICATION PROCESS

2.1 Method and Criteria

The CRA Project Team has assessed and verified that the implementation of the Project Activity and the steps taken to report emission reductions comply with the VCS criteria and relevant guidance provided by the VCS and the UNFCCC. The verification included a review of relevant documentation, records, and an on-site visit.

CRA followed a risk-based verification approach. CRA identified the key reporting risks related to the claimed emission reductions and assessed to what extent the Project Activity's control systems are adequate for mitigating any perceived reporting risks.

Key reporting risks that are not sufficiently addressed by the Project Activity's control systems represent residual risks. The CRA Project Team conducted detailed verification/testing to investigate the residual risks. Key issues assessed during verification included: verification of correct use of emission factors, accurate fuel consumption estimates, correct use of conversion factors, and consistency in aggregation of emissions data, as applicable. Wherever practical, direct reading instruments are preferred to be used to ensure that any reporting risks are kept with equipment and instrumentation performance limits.

The CRA Project Team ranked reporting risks and assessed the control systems implemented to mitigate these risks. The ranks are assigned as follows:

- Fully Implemented - All best practice expectations are implemented, resulting in a low risk
- Partially Implemented - A portion of the best practice expectations are implemented, resulting in a moderate risk
- Limited Implementation - Few or none of the expected system components or best practice expectations are implemented, resulting in a high risk

During the verification process, the CRA Project Team considered both quantitative and qualitative information on emission reductions. Quantitative data was comprised of the monitoring report and accompanying information submitted to the CRA Project Team by the Project Proponent. Qualitative data was comprised of information on internal management controls, calculation procedures, and procedures for transfer, frequency of emissions reports, and review and internal audit of calculations/data transfers.

The audit conclusion was based on the interaction of three key verification principles as follows:

1. Compliance with the monitoring plan
2. Accuracy
3. Quality of evidence

During the desk review, the CRA Project Team became familiar with the Project Activity in order to be able to compare the situation and status on site with the situation as described in the underlying documentation. The CRA Project Team reviewed the following items:

- Review of the data and information presented to verify completeness
- Review of the monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures
- Evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions
- Review of the last revision of the previous verification and validation reports (as applicable)
- Review of the written management manual (as applicable)
- Review of operation licenses from local authorities (as applicable)

Other documents such as process flow diagrams, technical drawings, manuals of equipment suppliers, and performance records were reviewed, if applicable to the Project Activity.

The CRA Project Team used a risk-based approach for on-site investigation conducted during the verification process. The Lead Auditor and other Project Team members followed the audit trails and data sets on site for specific indicators, and cross-checked with the monitoring plan and records. Direct reading instrumentation and redundancy in the data used to support the verification was identified in the verification reporting.

During the on-site assessment, the CRA Project Team focused on the key areas identified as follows:

- An assessment of the implementation and operation of the VCS Project Activities as per the registered VCS PD
- A review of information flows for generating, aggregating, and reporting the monitoring parameters
- Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the monitoring plan in the VCS PD
- A cross-check between information provided in the monitoring report and data from other sources such as plant log books, inventories, purchase records, or similar data sources
- A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the VCS PD and the selected methodology
- A review of calculations and assumptions made in determining the GHG data and emission reductions
- An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters

The outcome of the on-site assessment and the desk-top review was the creation of a Draft Findings Assessment. The Draft Findings Assessment was issued to the Project Proponent for response to any corrective actions or clarification requests. Upon receipt of the Project Proponent's response to these requests, the CRA Project Team prepared a Draft Verification Report. The CRA Independent Technical Reviewer completed a peer review of this Draft Verification Report. Any additional findings were presented to the Project Proponent. Upon receipt of the Project Proponent's response, the CRA Project Team issued a Final Verification Report along with a completed Verification Statement and Verification Representation.

2.2 Document Review

The VCS verification process relies heavily upon documentation review. The primary document for review is the VCS Monitoring Report. The Project Proponent provided CRA with the VCS Monitoring Report and revised VCS Monitoring Reports as detailed below:

Document Date	Date Issued to CRA	Version Number	Methodology
10 February 2015	11 February 2015	1	ACM0002, Ver. 12.1.0

Each of the above submissions was reviewed by CRA. As part of the verification process, additional documentation supplemental to the VCS Monitoring Report was requested and reviewed by CRA. This supplemental information included the following documents:

Issued to CRA Date	Document	Description and Document Date
11 February 2015	Dempsey Ridge Third Monitoring Report_v1.doc	VCS Monitoring Report (VCS PD) "Third Monitoring Report" Version 1, dated 10 February 2015
03 March 2015	AEP 230kV Check Meter Hourly Data 2014.xlsx	Check Meter Electrical data
03 March 2015	AEP 230kV Revenue Meter Data 2014.xlsx	Revenue Meter Electrical Data
03 March 2015	Public service 95933322000 010715.pdf Public Service 95933322000 040314.pdf public service 95933322000 050614.pdf Public Service 95933322000 060914.pdf Public service 95933322000 072114.pdf public service 95933322000 080814.pdf Public Service 95933322000 090914.pdf Public service 95933322000 100314.pdf Public service 95933322000 111014.pdf public service 95933322000 120414.pdf	Electrical Invoices for Electricity Purchased from the Grid
03 March 2015	Test Dempsey Ridge WF 230KV Sub - PSO Sweetwater Fdr IPP BU - Dem. copy 08-14-13.pdf Test Dempsey Ridge WF 230KV Sub - PSO Sweetwater Fdr IPP PRI - Dem. copy 08-14-13.pdf	Calibration Records for the Electrical Meters
11 March 2015	Dempsey Ridge REC Sales Attestation – 03112015 – Executed.pdf	Attestation Letter for REC Sales in 2014
08 April 2015	Acciona 34.5kV Check Meter Calibration Certificate.pdf Acciona 230kV Check Meter Calibration Certificate.pdf	Check Meter Calibration Certificates
08 April 2015	Dempsey Ridge Verification Report 2.0.pdf	Verification Report for the 2013 Reporting Year, Completed by Ruby Canyon Engineering

Issued to CRA Date	Document	Description and Document Date
14 May 2015	AEP Check Meter Picture.jpg AEP Main Meter Picture.jpg	Photos of the Serial Numbers for the AEP Revenue Meters
14 May 2015	Authorization_to_Discharge_effective_April_112013.pdf letter_for_Authorization_to_Discharge_effective_April112013.pdf	Environmental Permitting Information

2.3 Interviews

CRA completed a Site Inspection for the verification on 08 April 2015. During this portion of the verification process, CRA was able to interview a series of project stakeholders regarding various aspects of the Project Activity. Mr. Brent Boss and Mr. Jason Clarke of CRA completed the Site Inspection. The following Project Stakeholders were interviewed by CRA:

Name of Interviewee	Position and Company	Details of Items Discussed
Chris Vickery	Energy Director – Acciona	• Major maintenance events and weather issues. • Capacity factor of the Site • Losses between the meters and point of inter-connect • Agreement between the Project Proponent and Southern Power Pool (SPP) • Previous FAR from the first verification • Billing with SPP • Calibration of meters and certificates • Meter data and SCADA system • QA/QC principles
Chris Petrola	Interim Site Manager – Acciona	

2.4 Site Inspections

The verification process is primarily a document review process. The completion of a Site Inspection provided the CRA Project Team with an added level of assurance that the information provided within documentation from the Project Proponent is complete and accurate as it relates to the registered Project Activity. As stated above, CRA completed a Site Inspection for the verification on 08 April 2015. Aside from interviewing project stakeholders as per Section 2.3 of this report, the CRA Project Team reviewed the implementation status of the Project Activity. During the Site Inspection the CRA Project Team noted that there were a total of 66 installed turbines. The turbines were in compliance with the registered VCS PD. The implementation status of the Project Activity will be discussed in Section 4.1 below.

2.5 Resolution of Findings

Each CAR, and CL raised by CRA is presented in individual tables below and throughout this report as they apply to their respective Sections. The Project Proponent was required to complete the appropriate responses and to provide, where necessary, documentation as evidence of their assumptions and/or responses.

A summary of the final results of the findings assessments is presented as follows:

Finding Category	Number of Findings
CAR	0
FAR	0
CL	17
Total	17

No material discrepancies were observed by CRA in the verification of the Project Activity.

ID #	Clarification Request	Response
CL#2	CRA is requesting that the Project Proponent clarify that a verification was completed for the 2013 reporting year. If so, CRA requests that a copy of the 2013 verification report be provided as it is not available on the VCS project database.	The verification for the 2013 reporting year was discussed during the Site visit on 08 April 2015 and a copy of the 2013 verification report completed by Ruby Canyon Engineering was provided by the Project Proponent via e-mail on 08 April 2015.
CL#3	CRA request that the Project Proponent disclose if there were any turbines added to the Project Activity in 2014.	The addition of turbines was discussed during the Site visit on 08 April 2015 and it was confirmed that no turbines had been added in 2014 through on-Site review.
CL#7	CRA requests that the Project Proponent provide a copy of the agreement between Dempsey Ridge Wind Farm, LLC and the Southern Power Pool. CRA also requests that the Project Proponent provide any details related to amendments, if applicable.	The agreement was discussed with the Project Proponent during the Site visit on 08 April 2015. The agreement states that the AEP revenue meter must be calibrated every two years, the meter was last calibrated in August 2013 and documentation of this calibration was provided by the Project Proponent via e-mail on 03 March 2015. The Acciona owned meters get checked every five years and were calibrated in 2011 during the initiation of the Project Activity. Calibration certificates were sent via e-mail on 08 April 2015 from the Project Proponent and it was verified by CRA that the meters were calibrated by a qualified person. No amendments have been made to the agreement.
CL#17	CRA requests that the Project Proponent provide a copy of all environmental permits associated with the Project Activity.	The Project Proponent provided environmental permits related to storm water discharge associated with the Project Activity via e-mail on 14 May 2015. CRA additionally performed a check to ensure that there were no outstanding environmental infractions related to the Project Activity.

2.5.1 Forward Action Requests

No FARs were identified during the assessment of the information provided by the Project Proponent.

However, there was a FAR raised during the verification of the first verification period. The FAR was discussed during the Site Visit as noted in CL#8 below.

ID #	Clarification Request	Response
CL#8	CRA requests that the Forward Action Request (FAR) raised during the validation be addressed by the Project Proponent. As a result, CRA requests that the Project Proponent identify if the error identified during the accuracy tests was greater than 0.2 percent. CRA also requests that the Project Proponent identify if any changes were made to the agreement as a result of the FAR.	The FAR was discussed with the Project Proponent during the Site visit on 08 April 2015. No amendments have been made to the agreement as a result of the FAR. No error identified in the accuracy testing was greater than 0.2 percent as confirmed by the calibration certificates for the meters provided by the Project Proponent and re-calculation of the raw data.

2.6 Eligibility for Validation Activities

Validation activities were not performed as a part of this verification process.

3 VALIDATION FINDINGS

There were no validation activities that took place during the verification of this reporting period.

3.1 Participation under Other GHG Programs

The Project Activity has not been registered, or is seeking registration under any other GHG programs. CRA reviewed the Climate Action Reserves and VCS registry to note that this is the only Project Activity of its kind and received a letter from the Project Proponent noting that the no Renewable Energy Credits (RECs) associated with the Project Activity for the 2014 calendar year have been sold by the Project Proponent as noted in CL#1 below.

ID #	Clarification Request	Response
CL#1	CRA is requesting that the Project Proponent provide attestations concerning any environmental issues at the site and a written attestation relating to whether or not the credits have been claimed under any other system within the crediting period.	The Project Proponent provided a written attestation letter that no Renewable Energy Credits (RECs) had been sold by the Project Proponent in 2014. Letter received via e-mail on 11 March 2015. It was discussed during the Site visit on 08 April 2015 that the Project Proponent and Site Manager did not experience any environmental related issues in 2014 or any events that put them out of compliance with any environmental regulations.

3.2 Methodology Deviations

No methodology deviations were applied to this Project Activity during this monitoring period.

3.3 Project Description Deviations

The Project Proponent raised and warranted a project description deviation in the VCS PD related to the anticipated commercial operation start date and the actual commercial operation start date.

The Project Description in the VCS PD notes that at the time the original VCS PD was written for the Project Activity the commercial operation date was anticipated to be 15 December 2011. Due to delays during construction and commissioning of the Project Activity the commercial operation was not reached until 27 April 2012. However, the Project Activity began generating electricity on 01 January 2012 and as per the VCS Standard Version 3.5 "The project start date is the date on which the project began generating GHG emission reductions or removals". As a result, the crediting period begins on 01 January 2012 and extends until 31 December 2022.

The following deviation has been approved by CRA as it does not impact the compliance of the Project Activity with the VCS methodology or standard, additionality or the appropriateness of the baseline scenario and therefore remains in compliance with the VCS rules. The deviation has also been appropriately described and justified by the Project Proponent.

3.4 Grouped Project

The Project Activity is not a grouped project.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The Project Activity received its Validation Representation with the VCS dated 19 December 2011 as a Renewable Energy Industries type project under Sectoral Scope 1 defined by the UNFCCC and adopted by the VCS. The Project Activity was registered utilizing the approved consolidated large-scale methodology entitled "Grid connected electricity generation from renewable sources", Version 12.1.0 (ACM0002) with a renewable crediting period of 10 years commencing on the date the wind farm begins commercial operation, which was expected to be 15 December 2011 and expected to conclude on 15 December 2021.

Section 3.7.1 of the VCS Standard Version 3.5 states that "The project start date is the date on which the project began generating GHG emission reductions or removals". The project reached commercial operation on 27 April 2012. The renewable 10-year crediting period began on 01 January 2012 and will conclude on 31 December 2022. The stated crediting period is in accordance with the project crediting period VCS Standard Version 3.5 requirements. Monitoring data was provided for all of 2014 for the check and revenue meters indicating that the Project was in consistent operation for 2014 apart from minor maintenance and weather related issues. CRA

verified that the data collected in 2014 was in accordance with the monitoring requirements of the approved methodology.

During the verification, a Site Inspection was conducted, during which Project Activity implementation status was reviewed. The following paragraphs outline the information that was confirmed regarding the implementation status of the Project Activity.

The Project Activity's intent is to generate electricity from renewable sources and therefore displace electricity that otherwise would have been produced for or distributed to the SPP grid in the absence of the Project Activity.

The Project Activity is located over approximately 7,500 acres with the grid connection point geographic coordinates are as follows:

- Latitude: 35.5°N
- Longitude: -99.4°W

The Project Activity achieves GHG emissions reductions through the installation and operation of 66 Gamesa G90/2000-IEC II A, 2.0 MW turbines for a total rated nameplate capacity of 132 MW. The turbines are located in an area of rural and agricultural/grazing lands near Cheyenne, Oklahoma, U.S.A. Electricity generated by the turbines is upgraded from a 34.5 kV collection line rating to a 230 kV rating at the Project Activity's substation and then transferred via approximately 15 miles of transmission line to the POI at Sweetwater Substation where the electricity is then delivered to the SPP grid.

The CRA Project Team confirmed the implementation status of the Project Activity during the Site Inspection and confirmed the following details:

- At the time of the Site Inspection there were 66 erected turbines capable of operation with a total nameplate capacity of 132 MW
- Monitoring of required parameters as per the approved Monitoring Plan is conducted via four electricity meters; a revenue meter and three check meters. The revenue meter and one check meter are owned by AEP and the remaining two check meters are owned by the Project Proponent. Each of the meters is classified as a bi-directional meter in that they record electricity supplied to, and taken from, the grid. Each meter monitors the net electricity generated as per the approved Monitoring Plan. The revenue meter, as per the signed interconnection agreement, is the meter of record. The Project Proponent does not have access to the revenue meter.

No material discrepancies were noted between the Project Activity and the Project Description.

4.2 Accuracy of GHG Emission Reduction and Removal Calculations

4.2.1 Monitoring Parameters

The following is a list of monitoring parameter(s) that the Project Proponent measured and recorded in order to calculate the claimed emission reductions throughout the Monitoring Period:

Symbol	Monitoring Parameter Description (Units)	Frequency
EG _{facility,y}	Quantity of net electricity generation supplied by the project plant to the grid in year y (MWh)	Continuous/Real-Time measurement and at least monthly recording (electricity meter)

Upon review of the approved methodology, ACM0002, Version 12.1.0, the CRA Project Team has determined that the Project Activity applied a conservative factor in calculation of total emission reductions.

As per ACM0002, Version 12.1.0, the Project Proponent is required to monitor the electricity supplied to the grid, and monitor the combined margin CO₂ emission factor for grid connected power generation in year y (EF_{grid,CM,y}). The combined margin CO₂ emission factor is calculated using the "Tool to calculate the emission factor for an electricity system", Version 03.0.0.

In accordance with the Paragraph 36a of the "Tool to calculate the emission factor for an electricity system", Version 03.0.0, the Project Proponent calculated the emission factor using the ex-ante option, in which the emission factor is determined once at the validation stage and no monitoring and recalculation of the emission factor during the crediting period is required. Paragraph 38 of the "Tool to calculate the emission factor for an electricity system" Version 03.0.0, states "[t]he data vintage chosen should be documented in the CDM-PDD and should not be changed during the crediting period". In accordance with Paragraph 38 of the "Tool to calculate the emission factor for an electricity system" Version 03.0.0, the Project Proponent stated in Section 3.1 of the Project Description (PD) Version 3, dated 11 November 2011:

The Project Proponent choose an ex ante option for calculation of the OM with a three year generation weighted average, based on the most recent data available at the time of submission of the PD to the DOE for validation, without requirement to monitor and recalculate the emission factor during the crediting period.

As per ACM0002 Version 12.1.0, the Project Proponents is required to monitor total electricity produced by the project activity, including the electricity supplied to the grid and electricity supplied to internal loads in year y (TEG_y) only for hydro power plants, in order to measure internal loads.

4.2.2 Methods for Recording Monitoring Parameters

Emission reductions regarding this Project Activity are entirely dependent upon the direct measurement of the electricity both supplied and consumed from the SPP grid which combines to

form the net electricity generated. The net electricity generated is measured directly at the Project Activity substation. Located within this substation are four separate electricity meters; the revenue (main) meter and three check meters. The revenue meter and one check meter are owned by AEP and the remaining two check meters are owned by the Project Proponent. Each of the meters is classified as a bi-directional meter in that they record electricity supplied to, and consumed from, the grid. The meters are programmed to include a loss compensation factor of 0.028 percent to account for energy losses between the Project Activity substation and the POI at the Sweetwater substation. The Project Proponent calculated the loss compensation factor based on project conditions including the distance between the Project Activity substation and the POI, the line material, and transformer and meter specifications. In the Validation Report Version 3, dated 19 December 2011, the CRA Project Team was satisfied that all transmission losses were correctly accounted for in the VCS PD. Invoices tracking these electricity records were made available by the Project Proponent as will be discussed in Section 4.3. Net electricity generated is recorded in the units of MWh.

The Project Proponent is a merchant generator, and there is no explicitly executed agreement between SPP and Dempsey Ridge Wind Farm, LLC. SPP operated an imbalance market and paid Dempsey Ridge Wind Farm for its production at the Locational Imbalance Price (LIP), calculated hourly for the project. However, on March 1, 2014 the SPP launched the SPP Integrated Market Place and now pays the Project Proponent for its production based on the Locational Marginal Prices (LMP) which is based on 5 minute intervals instead of hourly. As a result, the Project Activity is now operational during hours when the LMP is at or greater than the rate required to be profitable. CRA requested clarification related to the billing to SPP as noted CL#12 below.

ID #	Clarification Request	Response
CL#12	CRA requests that the Project Proponent provides details associated with the billing to the SPP.	Billing with the SPP was discussed during the Site visit on 08 April 2015. Billing occurs on a five minute basis. As the Project Activity is a peak shaving operation, the Project Proponent receives a directive from SPP when they are to shut down. No directives were received from SPP in 2014.

AEP records the net electricity generation of the Project Activity through the use of the revenue meter as stated above. AEP collates the data and send it to SPP on a daily basis for settlement and invoice creation. SPP invoices the Project Proponent for electricity supplied to the grid on a weekly basis. The funds to pay the Project Proponent for electricity supplied to the grid come from an aggregate pool of funds collected by SPP from other market participants that need to purchase energy. Therefore, it is not a bilateral transaction that takes place. SPP operates the aggregate imbalance markets as a whole.

The Project Proponent states in the Monitoring Report that the revenue meter alone is adequate for the purposes of monitoring, recording, and billing. Should the revenue meter fail to register, AEP will base the measurements on data recorded by the check meters.

All data parameters recorded by the revenue meter are accessed only by the AEP personnel. The total amount of electricity consumed by the Project Activity is invoiced separately to the

Project Proponent from AEP on a monthly basis. The amount of electricity consumed by the Project building operations is invoiced separately to the Project Proponent from Northfork Electric Cooperative. The amount of electricity consumed by the project building operations was discussed during the Site Visit on 08 April 2015 and is presented in CL#14 below.

ID #	Clarification Request	Response
CL#14	CRA requests that the Project Proponent provide clarification relating to the metering of the Administration building and the electricity consumed by it.	The Project Proponent noted that the metering of the administration building is separate from the metered and invoiced quantities of electricity that travels through the substation. CRA reviewed the electricity meter for the Administration building and noted that the total electricity consumption by the building was 3,075 kW since commissioning of the building which is considered to be immaterial as it equates to approximately 1 MWh per year from the initiation of the crediting period. CRA determined that based on the emissions reductions achieved by the Project Activity, 1 MWh represents 0.0002 percent of the total emissions reductions.

It is the CRA Project Team's opinion that methods employed by the Project Proponent meet the requirements of the registered VCS PD and the associated approved methodology and additionally provide a level of redundancy with the monitoring of net electricity generated with four separate meters.

4.2.3 Calculation of Emission Reductions

The value of net electricity supplied to the grid once obtained, is then multiplied by the grid combined margin emission factor that was established as an ex-ante parameter during the validation stage and therefore is only required to be updated upon renewal of the crediting period. The grid emission combined margin factor established for this initial crediting period is 0.647 tCO₂/MWh.

The CRA Project Team compared the grid emission combined margin factor calculated for the Project Activity to average Oklahoma electricity emission factors. In comparison to U.S. Energy Information Administration 2002 average Oklahoma CO₂ emission factor, the Project Activity grid emission factor is conservative. The Project Activity grid emission combined margin factor was calculated in accordance with the approved methodology and associated tools, with clear and transparent references and sources.

As the Project Activity is displacing only carbon dioxide emissions from electricity production the resulting number value is then multiplied by the global warming potential of carbon dioxide as follows:

- $GWP_{CO_2} = 1 \text{ tCO}_2\text{e}/1 \text{ tCO}_2$

The calculations used to determine the overall emission reductions as applied to the Microsoft Excel spreadsheet provided by the Project Proponent are as follows:

Total Emission Reductions Calculation:

$$ER_y = BE_y - PE_y - L_y$$

Where:

BE_y = Baseline emissions in year y (tCO₂e/year)

PE_y = Project emissions in year y (tCO₂e/year)

L_y = Leakage emissions in year y (tCO₂e/year)

Baseline Emissions Calculations

$$BE_y = EG_y * EF_{grid,CM,y}$$

Where:

EG_y = Quantity of net electricity generation that is produced and supplied to the grid by the Project Activity in year y (MWh/year)

$EF_{grid,CM,y}$ = Ex-ante combined margin CO₂ grid emission factor (0.647 tCO₂/MWh)

The net electricity generated (EG_y) is determined by continuous measurement and monthly recording by the electricity revenue meter. The revenue meter is a bi-directional meter that records electricity supplied to, and consumed from the grid. The CRA Project Team confirmed the net electricity generation value(s) through the review of invoices and data from the revenue and check meters.

Project Emissions Calculations:

Project emissions are not quantified or required to be quantified based on the registered VCS PD and the approved methodology.

Leakage Emissions Calculations:

Leakage emissions are not quantified or required to be quantified based on the registered VCS PD and the approved methodology.

4.3 Quality of Evidence to Determine GHG Emission Reductions and Removals

Through the verification process, the CRA Project Team has raised several clarification requests to the Project Proponent in order to request evidence to support the emission reductions claims made in the Monitoring Report. These requests were provided to the Project Proponent in order to ensure the relevance, consistency, transparency, completeness, accuracy, and conservativeness of the statements and calculations made. These requests are detailed in CL#4, CL#5, CL#6, CL#9, CL#10, CL#11, CL#13, and CL#15, as noted below.

In accordance with Article 7, Section 7.4 of the Southwest Power Pool Interconnection Agreement for Gen-2006-035, Dempsey Ridge Wind Farm, LLC, the Transmission Owner (AEP Public Service Company of Oklahoma) is required to:

Inspect and test all Transmission Owner-owned Metering Equipment upon installation and at least once every two years thereafter.

If Metering Equipment fails to register, or if the measurement made by Metering Equipment during a test varies by more than two percent from the measurement made by the standard meter used in the test, Transmission Owner shall adjust the measurements by correcting all measurements for the period during which Metering Equipment was in error by using Interconnection Customer's check meters, if installed. If no such check meters are installed or if the period cannot be reasonably ascertained, the adjustment shall be for the period immediately preceding the test of the Metering Equipment equal to one-half the time from the date of the last previous test of the Metering Equipment.

The CRA Project Team raised CL#9 to request the calibration and testing records of the revenue and check meters to ensure that the equipment is calibrated in accordance with Section 3.16.5 of VCS Standard Version 3.5. CL#9 was closed out following provision of calibration or testing certificates for the revenue and check meters, which are in accordance with the equipment specifications.

ID #	Clarification Request	Response
CL#4	CRA is requesting that the Project Proponent provide logs or similar documentation of key maintenance and weather events, such as dates of planned and unplanned outages, and the nature, duration, and details of each event.	The Project Proponent provided an e-mail on 17 March 2015 that outlined major events related to weather and maintenance where the system was not operational. CRA reviewed the dates and information provided against the metered data.
CL#5	CRA requests that the Project Proponent provide their capacity factor for the year. (Percentage of running time for the year at full capacity)	The capacity factor was discussed during the Site visit on 08 April 2015 and was provided by the Project Proponent. The capacity factor for 2014 was 38.5 percent.
CL#6	CRA requests that the Project Proponent provide details regarding the percentage losses between the metering point and the point of interconnect to the electrical grid.	Losses were discussed during the Site visit on 08 April 2015, there is 13 miles between the metering point at the substation and the point of interconnect. A loss of 0.028 percent is built in to the meters to account for this distance which is noted in Section 3.2 of the monitoring report.
CL#9	CRA requests that the Project Proponent provide calibration certificates for all of the meters (check and revenue meters) on-Site that include the serial numbers.	The Project Proponent provided the calibration certificates for the two AEP meters (PRI and BU) on 03 March 2015. Calibration certificates for the two Acciona meters were provided during the Site Visit on 08 April 2015.
CL#10	CRA requests that the Project Proponent provide an example of the data collected on-Site and the SCADA system used to monitor the data collected.	Reviewed during the Site visit on 08 April 2015. The Project Proponent provided an over view of the SCADA system and all the parameters monitored. The Project Proponent noted that there was currently construction being performed on-Site related to the fiber network that provides communication from each of the turbines to the SCADA system. The whole fiber network is being replaced due to rodents severing the existing fiber network.
CL#11	CRA requests that the Project Proponent provide an overview of their QA/QC process for data collection	All the metered data can be viewed on-Site through the SCADA system however none of the data is retained on-Site it is all transmitted through to the headquarters in Chicago where the data is collected and analyzed.
CL#13	CRA requests that the Project Proponent provide copies of the invoices received and paid for the electricity consumption by the Project Activity.	The Project Proponent provided invoices for all of 2014 of the purchased electricity via e-mail on 03 March 2015. CRA used the check meter and revenue meter data along with the invoices to perform re-calculations of the net energy generation and determined they were consistent with the invoices.

ID #	Clarification Request	Response
CL#15	CRA requests that the Project Proponent provide photos of the serial numbers for the two AEP meters on-Site. Due to the location of the meters (in a locked cage) CRA was unable to get a clear photo of the meter serial numbers.	The Project Proponent provided the photos of the serial numbers for the two AEP revenue meters on-Site via e-mail on 14 May 2015.

The following summarizes the testing of Metering Equipment:

Meter	Serial #	Manufacturer Calibration Frequency	Interconnection Agreement Acceptance Test Frequency	Initial Factory Calibration Date	Accuracy Testing Date
Revenue Meter Manufacturer: Power Logic Model: ION8600 Error Class: +/- 0.2 percent	LT-1107A404-1	Calibration not required (digital device). Manufacturer does not specify frequency of accuracy checks.	Typically Annually but required once every 2 years at minimum	Not Required	14 August 2013
AEP 230kV Check Meter Manufacturer: Power Logic Model: ION8600 Error Class: +/- 0.2 percent	LT-1107A405-1	Calibration not required (digital device). Manufacturer does not specify frequency of accuracy checks.	In accordance with Good Utility Practice	Not Required	14 August 2013
Project Proponent 230kV Check Meter Manufacturer: Power Logic Model: ION8600 Error Class: +/- 0.2 percent	LT-1109A072-01	Calibration not required (digital device). Manufacturer does not specify frequency of accuracy checks.	In accordance with Good Utility Practice	08 September 2011	N/A
Project Proponent 34.5 kV Check Meter Manufacturer: Power Logic Model: ION8600 Error Class: +/- 0.2 percent	LT-1109A071-01	Calibration not required (digital device). Manufacturer does not specify frequency of accuracy checks.	In accordance with Good Utility Practice	08 September 2011	N/A

Overall, the CRA Project Team has determined that the Project Proponent has provided sufficient documentation as requested through the findings stated above. While not required for this Project Activity, the use of the check meter in relation to the revenue meter provides a further level of redundancy in the calculation of emission reductions and electricity sales.

4.3.1 Sampling of Data and Re-Calculation of Emission Reductions

The CRA Project Team requested a full data sampling regime from the Project Proponent as per CL#16 below. Invoices for electricity supplied to the grid and electricity back-fed from the grid were provided during the verification process. Consolidated raw data of electricity meter readings was also provided to the CRA Project Team. The CRA Project Team then reviewed the provided emission reduction calculation spreadsheet against the requirements of ACM0002, Version 12.1.0. The CRA Project Team determined that the calculation spreadsheets were completed in compliance with the approved methodology. At the conclusion of the verification, the CRA Project Team was successfully able to replicate the emission reduction calculations based on data retrieved.

ID #	Clarification Request	Response
CL#16	CRA requests that the Project Proponent provide the raw data collected from the check revenue and check meters and provide an explanation related to any corrections made as a result of a discrepancy between the two meters.	The Project Proponent provided the raw data for both meters via e-mail on 03 March 2015. CRA performed a re-calculation of the gross MWh produced in 2014 based on the revenue and check meter data. CRA found there to be a 0.002 percent variance between the revenue meter and check meter data. CRA then reviewed the gross check and revenue meter data with the invoices for electricity consumed (CL#13) and compared it to the Project Proponents net electricity generation calculation. CRA found that there was a variance of 0.04 percent variance between the Project Proponents calculations against the gross revenue meter data with invoices and against the check meter data with the invoices. Both variances are found to be immaterial.

4.3.2 Comparison of Calculated Versus Projected Emission Reductions

The comparison between quantity of emission reductions calculated during the monitoring period and what was projected within the registered VCS PD are summarized in the table below:

Time Period (equivalent)	Registered VCS PD (tCO ₂ e)	Monitoring Report (tCO ₂ e)
01 January 2014 – 31 December 2014	312,658	288,749

The deviation in tCO₂e between the 2014 Monitoring Report and the projection in the Registered VCS PD is -7.7 percent. As the projected values in the registered VCS PD are based around many assumptions and other default inputs (i.e., wind patterns), it is difficult to accurately predict the emission reductions achievable during any given monitoring period. As a result, it is CRA's opinion that the Project Activity has been implemented and operated as per the registered VCS PD.

4.4 Non-Permanence Risk Analysis

CRA has assigned the Fully Implemented risk ranking to the Project during the third consecutive monitoring period, confirming that all best practice expectations were implemented, resulting in a low risk for reporting. This ranking has been assigned based on the results of the verification process. No material discrepancies were observed by CRA in the verification of the Project, and no material errors were noted by the CRA Project Team, resulting in a low risk for reporting and a Fully Implemented ranking.

5 VERIFICATION CONCLUSION

CRA was contracted by Dempsey Ridge Wind Farm, LLC. (Project Proponent) to perform the third verification of the Dempsey Ridge Wind Project in the State of Oklahoma, U.S.A. As stated in Section 1.1, CRA as validator/verifier is responsible for reviewing the VCS Monitoring Report and any supporting documentation to ensure that the principles of VCS Program Guide, Version 3.5, and VCS Standard, Version 3.5 are met, specifically that the registered Project Activity has resulted in emission reductions that are:

- Relevant
- Complete
- Consistent
- Accurate
- Transparent
- Conservative

Verification Opinion

The verification was performed in accordance with the VCS Program Guide, Version 3.5, and VCS Standard, Version 3.5 in addition to the UNFCCC CDM methodology and associated methodological tools.

Through the construction of a 66 turbine wind power project with a total nameplate capacity of 132 MW, the registered Project Activity has resulted in a reduction of GHG emissions that are relevant, complete, consistent, accurate, transparent and conservative. Furthermore the emission reductions generated by the registered Project Activity have served to contribute to sustainable development, and resulted in long-term benefits to the mitigation of climate change.

Upon completion of the verification process it is the CRA Project Team's opinion that that all relevant VCS verification criteria have been satisfied. The registered Project Activity properly applies the criteria of ACM0002, Version 12.1.0. Within the VCS Monitoring Report it was demonstrated and confirmed by CRA that the Project Proponent has applied the Monitoring Plan as per the requirements of the registered VCS PD. Therefore, it is CRA's opinion that the emission reductions attributable to the registered Project Activity during the first monitoring period are stated in a manner that is materially correct and is a fair representation of implemented Project Activity as per the VCS PD.

All CLs raised by CRA have been satisfactorily closed by the Project Proponent. The claimed emission reductions have been reviewed by CRA for completeness, accuracy, and consistency. No cumulative errors were noted by the CRA Project Team and therefore no material errors were noted.

Based on the verification assessment performed, CRA is issuing a Positive Verification Opinion in regards to this Project Activity and will therefore recommend/certify that the registered Project Activity has obtained the reported emission reductions as follows:

Verification period: From 01 January 2014 to 31 December 2014

Verified GHG emission reductions and removals in the above verification period:

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
2014	288,749	0	0	288,749
Total	288,749	0	0	288,749

Respectfully Submitted,

CONESTOGA-ROVERS & ASSOCIATES LIMITED

A handwritten signature in black ink, appearing to be 'G. Reusing', with a stylized, flowing script.

Gordon Reusing, M.A.Sc., P.E., P.Eng.

A handwritten signature in black ink, appearing to be 'B. Boss', with a stylized, flowing script.

Brent Boss, P.Eng.

ANNEX A: ABBREVIATIONS

ACM	Approved Consolidated Methodology
AEP	American Electric Power
CAR	Corrective Action Request
CRA	Conestoga-Rovers & Associates Limited
CDM	Clean Development Mechanism
CL	Clarification Request
CO ₂ e	Carbon Dioxide Equivalent
CRA	Conestoga-Rovers & Associates Limited
DOE	Designated Operational Entity
FAR	Forward Action Request
GHG	Greenhouse Gas
kV	Kilovolt
LIP	Locational Imbalance Price
MWh	Megawatt hour
POI	Point of Interconnection
SCADA	Supervisory Control and Data Acquisition
SPP	Southwest Power Pool
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard
VCS PD	Verified Carbon Standard Project Document

ANNEX B: VERIFICATION WORK PLAN



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Verification Work Plan for the Dempsey Ridge Wind Project

Dempsey Ridge Wind Farm, LLC
333 W. Wacker Drive, Suite 1500
Chicago, IL
60606

Prepared for: Dempsey Ridge Wind Farm, LLC

Conestoga-Rovers & Associates

651 Colby Drive
Waterloo, Ontario N2V 1C2

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Section 1.0 Introduction

Dempsey Ridge Wind Farm, LLC (Dempsey Ridge or Project Proponent) retained Conestoga-Rovers & Associates Limited (CRA), to complete an independent third party verification of the Dempsey Ridge Wind Project, Verified Carbon Standard ID: 780 (Project) located near Cheyenne, Oklahoma under the requirements of the Verified Carbon Standard (VCS). The third verification period for Dempsey Ridge extends from 01 January 2014 through 31 December 2014.

The VCS defines verification as "the periodic ex-post independent assessment by a validation/verification body of the greenhouse gas (GHG) emission reductions and removals that have occurred as a result of the project during the monitoring period, conducted in accordance with the VCS rules." The following Verification Work Plan (VWP) has been prepared in accordance with the requirements presented in the following documents:

- *VCS Program Guide, Version 3.5*, dated October 8, 2013 (VCS Program Guide)
- *VCS Standard, Version 3.5*, dated March 25, 2015 (VCS Standard)
- *VCS Validation and Verification Manual, Version 3.1*, dated October 8, 2013 (VCS VVM)

In accordance with the VCS Program Guide, eligible GHG emissions reductions projects are to be evaluated by an accredited Validator/Verifier who has been approved under an accredited GHG program. CRA is a recognized Validator/Verifier under the VCS for projects within the following sectoral scopes:

- Sectoral Scope 1 - Energy industries (renewable/non-renewable sources)
- Sectoral Scope 4 - Manufacturing industries
- Sectoral Scope 5 - Chemical industry
- Sectoral Scope 10 - Fugitive emissions from fuels (solid, oil, and gas)
- Sectoral Scope 12 - Solvents use
- Sectoral Scope 13 - Waste handling and disposal.

Section 2.0 Verification Objective

CRA provided the Project Proponent and the VCS with assurance that the 2014 Monitoring Report contained no material discrepancy and was prepared in accordance with VCS Program Guide Version 3.5 and VCS Standard Version 3.5 as well as the translational guidance from the

United Nations Framework Convention on Climate Change (UNFCCC) Clean Development Mechanism (CDM).

CRA, as an independent third party recognized as a Validation and Verification Body by the VCS (Registration Number 027) was responsible for reviewing the VCS Monitoring Report including accompanying materials, previous VCS Verification and Validation Reports, and the VCS Project Description (PD) including the monitoring plan, baseline assessment, and any supporting documentation.

Section 3.0 Level of Assurance

The verification was conducted to a reasonable level of assurance with a maximum allowable materiality threshold of 5 percent as outlined in Section 5.3.1 of the VCS Standard, Version 3.5.

Section 4.0 Verification Standards

For the verification, CRA applied the VCS Program Guide Version 3.5, and the VCS Standard Version 3.5.

Section 5.0 Verification Criteria

For this verification, CRA applied the following criteria:

- *VCS Program Guide, Version 3.5*, dated October 8, 2013 (VCS Program Guide)
- *VCS Standard, Version 3.5*, dated March 25, 2015 (VCS Standard)
- *VCS Validation and Verification Manual, Version 3.1*, dated October 8, 2013 (VCS VVM)

Section 6.0 Scope of Services

The scope of services to be completed by CRA for this project was as follows:

- Verification of the Dempsey Ridge Wind Project located near Cheyenne, Oklahoma, U.S.A for the monitoring period of January 1, 2014 through December 31, 2014 under the requirements of the VCS

This project falls under Sectoral Scope 1 – Energy industries (renewable/non-renewable sources), which is one of the sectoral scopes for which CRA is accredited.

CRA was contacted regarding verification services by the Project Proponent and understood, based on information provided, that CRA would be communicating directly with the Project Proponent for the Project Activity. For the purposes of the works associated with the verification scope of work, all correspondence with respect to this Project Activity was directed through the Project Proponent unless otherwise noted.

The Verification activities were completed pursuant to the most up-to-date related rules, requirements, regulations, modalities, criteria, guidelines, emission reductions yield, and principles in relation to the VCS Project Document (VCS-PD) supplied by the Project Proponent. The VCS-PD was submitted in accordance with the UNFCCC CDM methodology applicable at validation which was the "Consolidated baseline methodology for grid connected electricity generation from renewable sources (ACM0002), Version 12.1.0", which was valid from September 17, 2010 to May 10, 2012. This methodology has been accepted for use by the VCS.

CRA reviewed the VCS-PD, Monitoring Plan, and Monitoring Reports and all related information and prepared a Verification Report and Verification Statement for the crediting period. CRA submitted the Verification Report and Verification Statement to the Project Proponent for submission to the VCS Registry irrespective of the outcome of the Verification.

Section 7.0 Conestoga-Rovers & Associates Limited Project Auditing Team

The Project Team for this Project Activity was established to provide the Client with a fully capable and qualified Project Team with specific knowledge of the local area as well as the requirements of the applicable VCS project protocols. As for any assurance project, CRA paired auditing expertise with technical expertise in order to provide all required aspects of an assurance process. For this verification assignment, the Project Team was comprised of accredited engineers, including specialists in renewable energy, wastewater, biosolids, agriculture, and other related projects. The resources indicated were focused on this verification activity to ensure that the assignment was completed in accordance with the indicated schedule.

The Project Auditing Team consisted of the following primary Auditors:

Team Leader and Technical Expert – Brent Boss, P. Eng.

Mr. Boss has a Bachelor of Engineering in Environmental Engineering from the University of Guelph. Mr. Boss has experience in solid waste engineering and a range of GHG validation and verification activities. Mr. Boss has been involved in various landfill gas projects throughout North and South America. Mr. Boss works closely with the UNFCCC and currently working as a lead auditor on two UNFCCC landfill validation assignments as well as an assistant auditor on a validation of a hydrogen plant project. Mr. Boss is also currently working with a large gas company in preparation of a potential Programme of Activities project. Additionally, Mr. Boss is working towards completing the registration and validation of a large-scale landfill gas project in Manaus, Brazil. Mr. Boss has played an integral role in the preparation of all Project Design Documentation (PDD) as well as interactions with the third party validator. Mr. Boss has also assisted in the development of anaerobic manure digestion projects including the reporting of emission reductions to the CAR in California. Mr. Boss has also performed similar reporting under Environment Canada's PERRL Initiative for several landfills within Ontario. Following the lifespan of the PERRL program, Mr. Boss continued to quantify and report emissions for the Eastview Landfill Site utilizing the ISO-14064 Part 2 standards. Mr. Boss has also completed GHG quantifications for several large-scale aerobic composting facilities within Ontario as well as an energy-from-bagasse plant in Brazil.

Mr. Boss has worked on the completion of eight validation or verification assignments within the past few years some of which have included the validation of the Dempsey Ridge Wind Farm in Oklahoma under the VCS, and several landfill gas projects under the CDM.

Additionally, Mr. Boss assisted in the application and approvals process which has led CRA to be recognized as a Designated Operational Entity (DOE) with the UNFCCC as well as the VCS. Mr. Boss is listed as a key member and a Project Manager of the GGAS Group within CRA for all UNFCCC and otherwise related projects.

Role of Team Leader and Technical Expert: The Team Leader and Technical Expert was the primary contact for WFEC unless otherwise delegated. The Team Leader and Technical Expert was responsible for establishing that no conflicts of interest are present prior to initialization of the work. During the verification the Team Leader and Technical Expert was responsible for preparing and/or reviewing and issuing the findings assessments as well as the transfer of material to the Independent Technical Reviewer when required. Specifically, the Team Leader and Technical Expert was present during any site visits such that a sufficient technical resources base was available during the audits. Assistance in estimating financial/investment analysis and the project descriptions was also the role of the Team Leader and Technical Expert.

Team Leader Under Training – Jason Clarke, B.Eng., EIT

Mr. Clarke is a Junior Engineer and has been with CRA since 2012. Mr. Clarke graduated from the University of Guelph with a bachelor's degree in Environmental Engineering. Mr. Clarke is currently a member of Professional Engineers of Ontario as an Engineering Intern (EIT). Mr. Clarke has practical and field experience associated with solid waste management engineering, construction oversight/administration, and a range of GHG validation and verification activities. Mr. Clarke has been a validation/verification team member for a variety of GHG Validation and Verification projects registered under ANSI and UNFCCC CDM. Mr. Clarke has been involved in the preparation of GHG Validation and Verification plans, issues logs, draft and final validation/verification reports, and findings assessments for various GHG projects associated with the Ontario Ministry of the Environment and Climate Change (MOECC), ANSI, The Climate Registry (TCR), Massachusetts Department of Environmental Protection (MassDEP), VCS, and the UNFCCC CDM. Mr. Clarke also has experience with the internal and external auditing related to GHG Verification and Validation projects in Ontario, Quebec, Alberta, British Columbia, and Massachusetts.

Role of Team Leader Under Training: The Team Leader Under Training was responsible for establishing that no conflicts of interest are present prior to initialization of the work. During the verification the Team Leader Under Training was responsible for preparing and/or reviewing and issuing the findings assessments as well as the transfer of material to the Independent Technical Reviewer when required. The Team Leader Under Training also completed a number of tasks for the Team Leader and Technical Expert while under supervision.

Technical Reviewer and Technical Expert – Gordon Reusing, M.A.Sc., P.E., P.Eng.

Mr. Reusing is a Principal in charge of CRA's Greenhouse Gas Assurance Services Group. He is a Lead Verifier, Lead Validator, and Peer Reviewer with extensive experience including GHG Programmes in Alberta, BC, Ontario, Quebec, Nova Scotia, California, Massachusetts, and Programmes operated by the UNFCCC CDM, The Gold Standard, TCR, the Carbon Disclosure Project (CDP), and the VCS.

Mr. Reusing has extensive GHG emissions inventory and verification experience in the oil and gas, chemical, cement, transportation, pulp and paper, general industrial, electronics, power generation, and waste management sectors. He has completed dozens of bottom-up GHG emissions inventories. Mr. Reusing is very familiar with stationary combustion, manufacturing and reaction processes which generate GHG emissions. Mr. Reusing is identified as an air emissions expert for quantification of emissions reductions in accordance with CRA's role as a DOE in the UNFCCC.

Mr. Reusing has been the Lead Verifier, Peer Reviewer, and Technical Expert for numerous GHG verification projects for the government of Alberta for GHG Compliance Reports, Baseline Reports, and GHG offsets under the Alberta Specified Gas Emitters Regulation. In Alberta Mr. Reusing has experience with upstream oil and gas (in situ and mining oil sands), downstream oil and gas (refineries), chemical plants, pulp and paper, sawmills, coal fired power plants, co-generation systems, hydrogen plants, and biomass power plants.

Mr. Reusing has completed two courses on GHG emissions conducted by the Canadian Standards Association (CSA) – ISO 14064 Part 1 "Specification with Guidance at the Organization Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals" and ISO 14064 Part 2 "Specification with Guidance at the Project Level for Quantification, Monitoring and Reporting of Greenhouse Gas Emission Reductions or Removal Enhancements". Mr. Reusing is qualified by the Canadian Standards Association as a Lead Verifier for greenhouse gas verification and validation projects. He has obtained a certificate for completion of the exams associated with ISO 14064 Part 3 "Specification with Guidance for the Validation and Verification of Greenhouse Gas Assertions."

Role of Technical Reviewer and Technical Expert: The Technical Reviewer and Technical Expert was responsible for the third party review of the verification report prepared by the Team Members against the requirements of the VCS specifically providing technical expertise for the overall independent review process. The Technical Reviewer and Technical Expert made known any further questions or comments to the Team Leader upon their review and ensured through the Team Leader that these questions have been addressed accordingly.

The Project Proponent was allowed ten business days to object to any or all of the Project Team members selected for these Project Activities. Provided the Project Proponent had sufficient justification for objection, CRA would have reconstituted the Project Team and resubmitted the names of the proposed team members to the Project Proponent.

Section 8.0 Verification Process

The main components of the CRA verification process were as follows:

- Document Review
- Preparation of Assessment List and Completion of a Site Visit
- Verification Assessment and Issuance of Corrective Action (CAR)/Forward Action (FAR)/Clarification (CL) Requests

- Response to Corrective Action /Forward Action/Clarification Requests
- Draft Verification Report Issuance
- Final Verification Report Issuance
- Technical Review and Verification Statement

The timelines associated with each of these items are discussed in the sections to follow.

8.1 Overview of Verification Process

The Project Team assessed and verified that the implementation of the Project and the steps taken to report emission reductions comply with the VCS criteria and relevant guidance provided by the VCS. The verification included a review of relevant documentation, records, and an on-site visit.

CRA followed a risk-based verification approach. As such, CRA identified the key reporting risks related to the claimed emission reductions and assessed to what extent the project operator's control systems were adequate for mitigating any perceived reporting risks.

Key reporting risks that were not sufficiently addressed by the project operator's control system represented residual risks. The Project Auditing Team conducted detailed verification/testing to investigate the residual risks. Key issues in verification could have included, but were not limited to, verification of correct use of emission factors, accurate fuel consumption estimates, correct use of conversion factors, and consistency in aggregation of emissions data. Wherever practical, direct reading instruments were used to ensure that any reporting risks were kept with equipment and instrumentation performance limits.

The Project Auditing Team ranked reporting risks and assessed the control systems implemented to mitigate these risks. The rank was assigned based on the following:

- **Fully Implemented** - All best practice expectations are implemented, resulting in a low risk
- **Partially Implemented** - A portion of the best practice expectations are implemented, resulting in a moderate risk
- **Limited Implementation** - Little or none of the expected system components or best practice expectations are implemented, resulting in a high risk

During the verification process, the Project Auditing Team considered both quantitative and qualitative information on emission reductions. Quantitative data was comprised of the monitoring reports submitted to the Project Auditing Team by the Client. Qualitative data was

comprised of information on internal management controls, calculation procedures, and procedures for transfer, frequency of emissions reports, and review and internal audit of calculations/data transfers.

The audit conclusion was based on the interaction of three key verification principles as follows:

1. Compliance with the monitoring plan
2. Accuracy
3. Quality of evidence

8.2 Project Developer Interactions

During the verification process, the Project Auditing Team could have identify issues related to the Project's baseline, implementation or operations that needed to be further elaborated, researched, or added to meet VCS requirements and achieve credible emission reductions. Although there are different methods of reporting such results, it is imperative that these issues were transparently identified, discussed, and concluded in the Verification Report.

If during the verification of the Project, the Project Auditing Team identified issues that needed to be addressed to confirm that the Project meets the VCS requirements, the Lead Auditor would have issued a Corrective Action Request (CAR), Clarification Request (CL), or a Forward Action Request (FAR), as appropriate, to the Client.

Iterations of these requests would have been continued until such a time as the Lead Auditor could have adequately resolved or "closed out" the identified CAR(s), CL(s), or FAR(s).

Each of these procedures is discussed in further detail below.

Corrective Action Request (CAR)

A CAR is "a request raised by the DOE during verification when there has been a mistake, the VCS requirements have not been met or there is a risk the emissions cannot be monitored or calculated."¹ A CAR is issued when the Project Team identifies non-compliance with project requirements or a risk to successful fulfillment of the particular project's objectives.

¹ CDM Rule Book, A-Z, <http://cdmrulebook.org/3921>, accessed on December 30, 2009.

The Lead Auditor would have issued a CAR to Dempsey Ridge if:

- The Project Proponent has made mistakes in the project documentation and/or Monitoring Report that directly influences emission reductions
- There is a risk that the emission reductions cannot be monitored, calculated, verified, and/or certified in the Monitoring Report
- The VCS requirements deemed relevant for verification of the Monitoring Report have not been met

The above issues could have resulted in the expected emission reductions not being realized.

It was the responsibility of Dempsey Ridge to acknowledge and respond to the CARs identified by the Project Team in a timely manner. The CARs could be addressed by the Dempsey Ridge through modifications to the project design, adjustments to the selected project baseline, and/or by rectifying and updating the Monitoring Report. CARs may have also required further investigation of issues that have not been considered or appropriately addressed in the project documents.

Conversely, a verification with no (remaining) CARs could still end up not producing the expected emission reductions. Some issues will only be possible to fully clarify during detailed design (e.g., after an investment decision has been made). Other issues may even be unclear until an ex post (i.e., for the time emission reductions have been achieved) verification and certification has been established to determine the emissions reductions the project has actually generated.

The Project Proponent would have approved all changes submitted to the Project Auditing Team for final review.

The Team Leader resolved or "closed out" CARs only if the Project Proponent modified the project design, rectified the Monitoring Report, or provided adequate additional explanations or evidence that satisfied the Project Team's concerns and the VCS requirements. CRA would not have recommended the project for VCS registration unless all of the CARs are resolved prior to the final stages of the verification.

The Project Auditing Team reported on all CARs in the Verification Report.

Clarification Request (CL)

A CL is a request for additional clarification "made by the DOE to the Project Proponent during validation or verification if the information provided is insufficient or unclear."²

The Lead Auditor issued a CL to the Project Proponent if the Project Team determined that the information provided by the Project Proponent was insufficient, unclear, or not transparent enough to establish whether the applicable requirements were met.

It was the responsibility of the Project Proponent to acknowledge and respond to the CLs identified by the Project Team in a timely manner. The CLs were addressed by the Client through modifications to the project design, adjustments to the selected project baseline, provision of further explanations or additional evidence, and/or by rectifying and updating the Monitoring Report, as needed. CLs may have also required further investigation of issues that had not been considered or appropriately addressed in the project documents.

The Project Proponent would have approved all changes submitted to the Project Team for final review.

The Lead Auditor resolved or "closed out" CLs only if the Client modified the project design, rectified the Monitoring Report, or provided adequate additional explanations or evidence that satisfied the Project Team's concerns and the VCS requirements. If this was not done, CRA would not have recommended the Monitoring Report for registration to the VCS.

The Project Auditing Team reported on all CLs in the Verification Report.

Forward Action Request (FAR)

A FAR is "a request made by the DOE during verification" to "highlight issues related to project implementation that require review during the first verification of the Project Activity."³

The Lead Auditor would have raised a FAR during verification to highlight issues related to project implementation that required review during the first verification of the Project Activity. FARs will not relate to the VCS requirements for registration.

The Project Auditing Team reported on all FARs in the Verification Report.

² CDM Rule Book, A-Z, <http://cdmrulebook.org/3920>, accessed on December 30, 2009.

³ CDM Rule Book, A-Z, <http://cdmrulebook.org/3919>, accessed on December 30, 2009.

8.3 Site Visit

Based on conversations between CRA and Dempsey Ridge, CRA completed the Site Visit component of the verification on 08 April 2015. CRA completed the following items during the Site Visit:

- A walkthrough of the site and observation of the Project Activity's implementation Status
- Interviews with personnel with knowledge of the Project Activity and its implementation to crosscheck information provided; interviews may be conducted during the Site Visit, but may also be completed or continued by way of telephone or email
- Inspection of all monitoring equipment and a review of calibration and inspection data for same
- Request of information from personnel either not made previously available or deemed necessary following site walkthrough or following interviews

8.4 Quality Control

CRA in its role as DOE has established, documented, and is maintaining a quality management system (CDM Quality System) for conducting CDM-related projects that is integrated with CRA's ISO 9001:2008 Quality System. The CDM-related aspects of the Quality System have been added based on CDM requirements. Appropriate portions of the Quality System are available to required parties, and will be periodically updated as changes to the DOE accreditation requirements occur.

8.5 Reporting

As noted in Section 4.1, the results of this investigation, together with the results of the review of other areas, will give the necessary input for the Verification Statement. The Verification Statement will be positive, negative, or qualified. Irrespective of the Verification Statement, the Verification Report will be sent to the Verified Carbon Standard Registry. The Verification Statement provides all required details identified in Section 5.3.9 of the VCS Standard, Version 3.5:

- *Description of the level of assurance of the validation or verification*
- *Description of the objectives, scope and criteria of the validation*
- *Description as to whether the data and information supporting the GHG assertion were hypothetical, projected and/or historical in nature*
- *Inclusion of the validation/verification body's conclusion on the GHG assertion, including any qualifications or limitations*

Section 9.0 Verification Timelines

CRA is committed to providing efficient and effective services to all of its clients. In order for CRA to maintain a strict schedule, it was additionally the responsibility of the Client to maintain adherence to the proposed schedule.

The following table presents the timelines based on the execution of the verification activities. A key component to maintaining the timelines was the timely and complete response of the Project Proponent to any/all Project Action/Clarification Requests.

CRA reserved the right to revise or change the timeline and the associated fees given the following occurrences:

- An Action/Clarification Request (CAR, FAR or CL) is not adequately responded to in accordance with VCS standards within 30 days of submittal of the Request by CRA to the Project Proponent
- The VCS guidance related to the verification is revised during the verification process

Given that none of the previously mentioned events occurred during CRA's verification assessment such that the verification timelines were altered, the following table presents the timelines for the completion of the requested verification.

Table 1: Proposed Verification Timeline

<i>Date/Timeline</i>	<i>Milestone</i>	<i>CRA Deliverable</i>
Start Date	Contract is Duly signed by Project Proponent and CRA.	Duly signed contract.
02 March 2015	CRA submitted the verification work plan. Project Proponent provided most current version of VCS PD and Monitoring Plan.	CRA submits verification work plan to Project Proponent.
08 April 2015	CRA's Project Auditing Team conducted the Site Visit for the Project.	Not Applicable.

<i>Date/Timeline</i>	<i>Milestone</i>	<i>CRA Deliverable</i>
07 May 2015	CRA's Project Team reviewed The VCS-PD and Monitoring Report and formulated, as applicable, all CARs, FARs, and CLs in conjunction with the results of the Site Visit and issues to the Project Proponent.	CRA submitted a Summary of Findings to the Project Proponent consisting of CARs, CLs and FARs.
May 2015	Project Proponent submitted documentation addressing all CARs, FARs and CLs in conjunction with the results of the Site Visit and issues to the Project Proponent.	Not Applicable. Upon closure of all Action/Clarification Requests, CRA issued a Draft Verification Report to Technical Reviewer.
May - June 2015	CRA's Project Auditing Team reviewed the additional supporting documentation and any changes to the VCS PD or the Monitoring Plan.	

ANNEX C: FINDINGS ASSESSMENT

Rev. No.	Issues Log Date / Model Revision Date and Reason
0	April 23, 2015 / December 1, 2014 - First version of the model

CL #	Clarification Request	Explanation/Response	Status
1	CRA is requesting that the Project Proponent provide attestations concerning any environmental issues at the site and a written attestation relating to whether or not the credits have been claimed under any other system within the crediting period.	The Project Proponent provided a written attestation letter that no Renewable Energy Credits (RECs) had been sold by the Project Proponent in 2014. Letter received via e-mail on March 11, 2015. It was discussed during the Site visit on April 8, 2015 that the Project Proponent and Site Manager did not experience any environmental related issues in 2014 or any events that put them out of compliance with any environmental regulations.	Closed
2	CRA is requesting that the Project Proponent clarify that a verification was completed for the 2013 reporting year. If so, CRA request that a copy of the 2013 verification report be provided as it is not available on the VCS database.	The verification for the 2013 reporting year was discussed during the Site visit on April 8, 2015 and a copy of the 2013 verification report completed by Ruby Canyon Engineering was provided by the Project Proponent via e-mail.	Closed
3	CRA request that the Project Proponent disclose if there were any turbines added to the Project Activity in 2014	The addition of turbines was discussed during the Site visit on April 8, 2015 and it was confirmed that no turbines had been added in 2014 through on-Site review.	Closed
4	CRA is requesting that the Project Proponent provide logs or similar documentation of key maintenance and weather events, such as dates of planned and unplanned outages, and the nature, duration, and details of each event.	The Project Proponent provided an e-mail on March 17, 2015 that outlined major events related to weather and maintenance where the system was not operational. CRA reviewed the dates and information provided against the metered data.	Closed
5	CRA requests that the Project Proponent provide their capacity factor for the year. (Percentage of running time for the year at full capacity)	The capacity factor was discussed during the Site visit on April 8, 2015 and was provided by the Project Proponent. The capacity factor for 2014 was 38.5 percent.	Closed
6	CRA requests that the Project Proponent provide details regarding the percentage losses between the metering point and the point of interconnect to the electrical grid.	Losses were discussed during the Site visit on April 8, 2015, there is 13 miles between the metering point at the substation and the point of interconnect. A loss of 0.028 percent is built in to the meters to account for this distance which is noted in Section 3.2 of the monitoring report.	Closed
7	CRA requests that the Project Proponent provide a copy of the agreement between Dempsey Ridge Wind Farm, LLC and the Southern Power Pool. CRA also requests that the Project Proponent provide any details related to amendments, if applicable.	The agreement was discussed with the Project Proponent during the Site visit on April 8, 2015. The agreement states that the AEP revenue meter must be calibrated every two years, the meter was last calibrated in August 2013 and documentation of this calibration was provided by the Project Proponent via e-mail on March 3, 2015. The Acciona owned meters get checked every five years and were calibrated in 2011 during the initiation of the Project Activity. Calibration certificates were sent via e-mail on April 8, 2015 from the Project Proponent and it was verified by CRA that the meters were calibrated by a qualified person. No amendments have been made to the agreement.	Closed
8	CRA requests that the Forward Action Request (FAR) raised during the validation be addressed by the Project Proponent. As a result, CRA requests that the Project Proponent identify if the error identified during the accuracy tests was greater than 0.2 percent. CRA also requests that the Project Proponent identify if any changes were made to the agreement as a result of the FAR.	The FAR was discussed with the Project Proponent during the Site visit on April 8, 2015. No amendments have been made to the agreement as a result of the FAR. No error identified in the accuracy testing was greater than 0.2 percent as confirmed by the calibration certificates for the meters provided by the Project Proponent and re-calculation of the raw data.	Closed
9	CRA requests that the Project Proponent provide calibration certificates for all of the meters (check and revenue meters) on-Site that include the serial numbers.	The Project Proponent provided the calibration certificates for the two AEP meters (PRI and BU) on March 3, 2015. Calibration certificates for the two Acciona meters were provided during the Site Visit on April 8, 2015	Closed
10	CRA requests that the Project Proponent provide an example of the data collected on-Site and the SCADA system used to monitor the data collected.	Reviewed during the Site visit on April 8, 2015. The Project Proponent provided an over view of the SCADA system and all the parameters monitored. The Project Proponent noted that there was currently construction being performed on-Site related to the fiber network that provides communication from each of the turbines to the SCADA system. The whole fiber network is being replaced due to rodents severing the existing fiber network.	Closed
11	CRA requests that the Project Proponent provide an overview of their QA/QC process for data collection	All the metered data can be viewed on-Site through the SCADA system however none of the data is retained on-Site it is all transmitted through to the headquarters in Chicago where the data is collected and analyzed.	Closed
12	CRA requests that the Project Proponent provides details associated with the billing to the SPP	Billing with the SPP was discussed during the Site visit on 08 April 2015. Billing occurs on a five minute basis. As the Project Activity is a peak shaving operation, the Project Proponent receives a directive from SPP when they are to shut down. No directives were received from SPP in 2014.	Closed
13	CRA requests that the Project Proponent provide copies of the invoices received and paid for the electricity consumption by the Project Activity.	The Project Proponent provided invoices for all of 2014 of the purchased electricity via e-mail on 03 March 2015. CRA used the check meter and revenue meter data along with the invoices to perform re-calculations of the net energy generation and determined they were consistent with the invoices.	Closed
14	CRA requests that the Project Proponent provide clarification relating to the metering of the Administration building and the electricity consumed by it.	The Project Proponent noted that the metering of the administration building is separate from the metered and invoiced quantities of electricity that travels through the substation. CRA reviewed the electricity meter for the Administration building and noted that the total electricity consumption by the building was 3,075 kW since commissioning of the building which is considered to be immaterial as it equates to approximately 1 MWh per year from the initiation of the crediting period. CRA determined that based on the emissions reductions achieved by the Project Activity, 1 MWh represents 0.0002 percent of the total emissions reductions.	Closed
15	CRA requests that the Project Proponent provide photos of the serial numbers for the two AEP meters on-Site. Due to the location of the meters (in a locked cage) CRA was unable to get a clear photo of the meter serial numbers.	The Project Proponent provided the photos of the serial numbers for the two AEP revenue meters on-Site via e-mail on 14 May 2015.	Closed
16	CRA requests that the Project Proponent provide the raw data collected from the check revenue and check meters and provide an explanation related to any corrections made as a result of a discrepancy between the two meters.	The Project Proponent provided the raw data for both meters via e-mail on March 3, 2015. CRA performed a re-calculation of the gross MWh produced in 2014 based on the revenue and check meter data. CRA found there to be a 0.002 percent variance between the revenue meter and check meter data. CRA then reviewed the gross check and revenue meter data with the invoices for electricity consumed (CL#13) and compared it to the Project Proponents net electricity generation calculation. CRA found that there was a variance of 0.04 percent variance between the Project Proponents calculations against the gross revenue meter data with invoices and against the check meter data with the invoices. Both variances are found to be immaterial.	Closed
17	CRA requests that the Project Proponent provide a copy of all environmental permits associated with the Project Activity.	The Project Proponent provided environmental permits related to storm water discharge associated with the Project Activity via e-mail on 14 May 2015. CRA additionally performed a check to ensure that there were no outstanding environmental allegations related to the Project Activity.	Closed

ANNEX D: VERIFICATION CHECKLIST

CDM Verification Checklist Conestoga-Rovers & Associates

Project No.: 074496 **Project Title:** Dempsey Ridge Wind Project

Project Team: Brent Boss, Jason Clarke, Gordon Reusing **Date:** June 16, 2015

Verification Requirements		Comments	Peer Reviewer
Determine whether the registered CDM project activity or PoA and CPA comply with the requirements of paragraph 62 of the CDM modalities and procedures.	☒	Not applicable.	Yes ☒ No ☐
Make publicly available the monitoring report received from the project participants or the coordinating/managing entity in accordance with the Project cycle procedure except when the host Party's DNA withdraws its approval of the registered CDM project activities or PoAs and/or its authorization of project participants in accordance with the "Procedure: Process for dealing with letters from DNAs that withdraw approval/authorization"	☒	Not applicable. The monitoring reports become available on the VCS website following the completion of the verification.	Yes ☒ No ☐
Ensure that only verification activities undertaken after the publication of the monitoring report on the UNFCCC CDM website shall be used as a basis for the DOE to conclude its verification and submit a request for issuance of CERs to the Board	☒	Only verification activities undertaken after the publication of the monitoring report on the VCS website were used as the basis for CRA to conclude its verification and submit the request for issuance of the VCUs to the VCSA.	Yes ☒ No ☐
Assess both quantitative and qualitative information on emission reductions provided in the project or programme documentation	☒	During the verification process, CRA considered both quantitative and qualitative information on emission reductions. Quantitative data was comprised of the monitoring report submitted by the Project Proponent. Qualitative data was comprised of information on internal management controls, calculation procedures, procedures for transfer, frequency of emissions reports, and review and internal audit of calculations/data transfers.	Yes ☒ No ☐

CDM Verification Checklist Conestoga-Rovers & Associates

Verification Requirements		Comments	Peer Reviewer
Assess and determine whether the implementation and operation of the registered CDM project activity or PoA and CPA, and the steps taken to report emission reductions comply with the CDM criteria and relevant guidance provided by the Board. This assessment shall involve a review of relevant documentation as well as, as appropriate, an on-site inspection(s). For an on-site inspection(s), the DOE may apply a sampling approach in accordance with the "Standard for sampling and surveys for CDM project activities and programme of activities"	☒	CRA's assessment of the project activity implementation and operation are detailed in Section 4 of the Verification Report. The on-site inspection was completed on 08 April 2015 The relevant decision, clarifications and guidance from the CMP and the CDM EB were checked and there is no issue in this regard.	Yes ☒ No ☐
Assess whether the data collection system meets the requirements of the registered monitoring plan as per the applied methodology including applicable tool(s) and, where applicable, the applied standardized baseline	☒	CRA's assessment of the data collection system is detailed in Section 4 of the Verification Report. The formulae and methods used to calculate the baseline emissions, project emissions, and leakage are appropriate and in line with the approved methodology.	Yes ☒ No ☐
In addition to the monitoring documentation, review:	☒		
The registered PDD or PoA-DD and CPA-DD, including the registered monitoring plan and/or the changes from the registered PDD, PoA-DD or CPA-DD, and the corresponding validation opinion;	☒	The VCS monitoring report was reviewed as detailed in Section 2.2 of the Verification Report.	Yes ☒ No ☐
The validation report and previous verification reports, if any ;	☒	CRA Project Team checked from the validation report and previous verification report and confirmed that there are no pending issues from the previous verification or validation process.	Yes ☒ No ☐
The applied monitoring methodology and, where applicable, the applied standardized baseline;	☒	The monitoring report is consistent with the version of the methodology against which the VCS PD was registered. The methodology applied for the Project Activity was ACM0002 Version 12.1.0.	Yes ☒ No ☐
Any other information and references relevant to the emission reductions or net removals of the registered CDM project activity or included CDM CPA (e.g. IPCC reports, data on electricity generation in the national grid or laboratory analysis and national regulations).	☒	All the other documents reviewed as part of the verification are listed in Section 2.2 of the Verification Report.	Yes ☒ No ☐

CDM Verification Checklist
Conestoga-Rovers & Associates

Verification Requirements		Comments	Peer Reviewer
Determine whether the project participants or the coordinating/managing entity have addressed the FARs identified during validation or previous verification(s)	☒	The CRA Project Team reviewed previous verification reports and the validation report and determined that there was one FAR issued during validation. The CRA Project Team raised CL#8 in the Verification Report to address this FAR.	Yes ☒ No ☐
Request the secretariat to withdraw the published monitoring report in accordance with the Project cycle procedure, if the project participants or the coordinating/managing entity requested the DOE to do so before the submission of a request for issuance.	☒	Not applicable.	Yes ☒ No ☐
Quality OF Evidence			
Confirm that there is an audit trail that contains the evidence and records that validate or invalidate the stated figures. It shall include the source documents that form the basis for assumptions and other information underlying the GHG data			
When assessing the audit trail, the DOE shall:			
Address whether there is sufficient evidence available, both in terms of frequency (time period between evidence) and coverage (in covering the full monitoring period);	☒	The complete set of data has been checked and there has been no discrepancies observed. Refer to Section 2.2 of the Verification Report for details.	Yes ☒ No ☐
Address the source and nature of the evidence (external or internal, oral or documented);	☒	Refer to Section 2.3 of the Verification Report for details.	Yes ☒ No ☐
Cross-check the monitoring report against other sources such as comparable information, where available, from sources other than those used in the monitoring report to determine whether the stated figures are correct.	☒	Data are cross-checked with electricity bills /invoices and there has been no discrepancies observed. Refer to Section 2.5 of the Verification Report for details.	Yes ☒ No ☐
Only certify emission reductions that are based on verifiable evidence.	☒	Refer to Section 5.0 of the Verification Report for details.	Yes ☒ No ☐
Application of Materiality			
The concept of materiality is applicable to the verification of all types of registered CDM project activities. It is not applicable to:			

CDM Verification Checklist
Conestoga-Rovers & Associates

Verification Requirements		Comments	Peer Reviewer
The verification of registered CDM PoAs;	☒	Not applicable.	Yes ☒ No ☐
Uncertainties related to measurement;	☒	Not applicable.	Yes ☒ No ☐
Addressing temporary deviations and permanent changes from the registered monitoring plan, applied methodology or standardized baseline, regardless of whether corresponding emission reductions or removals are above or below materiality thresholds.	☒	Not applicable.	Yes ☒ No ☐
A DOE planning and conducting a verification using the concept of materiality shall achieve a reasonable level of assurance that the reported emission reductions are free from material errors, omissions or misstatements in accordance with paragraphs 361– 372 below.	☒	Refer to Section 1.3 of the Verification Report for details.	Yes ☒ No ☐
An omission, misstatement, or erroneous reporting of information is material if it might lead, at an aggregated level, to an overestimation of the total emission reductions or removals achieved by a registered CDM project activity equal to or higher than the following thresholds:			
0.5 per cent of the emission reductions or removals for registered CDM project activities achieving a total emission reduction or removal equal to or more than 500,000 tonnes of carbon dioxide equivalent per year;	☒	Not applicable.	Yes ☒ No ☐
1 per cent of the emission reductions or removals for registered CDM project activities achieving a total emission reduction or removal of between 300,000 and 500,000 tonnes of carbon dioxide equivalent per year;	☒	Not applicable.	Yes ☒ No ☐
2 per cent of the emission reductions or removals for registered large-scale CDM project activities achieving a total emission reduction or removal of 300,000 tonnes of carbon dioxide equivalent per year or less;	☒	The materiality threshold in the VCS Standard Version 3.5 is 5 percent for projects of less than 300,000 tCO ₂ e. The materiality calculated for this Project was approximately 0.04 percent.	Yes ☒ No ☐

CDM Verification Checklist Conestoga-Rovers & Associates

Verification Requirements		Comments	Peer Reviewer
5 per cent of the emission reductions or removals for registered small-scale CDM project activities other than registered CDM project activities covered under subparagraph (e) below;	☒	Not applicable.	Yes ☒ No ☐
10 per cent of the emission reductions or removals for the type of registered CDM project activities referred to in decision 3/CMP.6, paragraph 38 (referred to as microscale project activities).	☒	Not applicable.	Yes ☒ No ☐
Recognizing that circumstances may exist that could cause the information reported by project participants to be materially misstated, the DOE should plan and perform verifications with an attitude of professional scepticism and rely on its professional judgement while applying the concept of materiality.	☒	CRA's approach to the verification and materiality is presented in Section 1.1 and 1.2 of the Verification Report.	Yes ☒ No ☐
The application of materiality and reasonable level of assurance imply that some data or information may not be checked. However, the DOE should design its verification and sampling plans to detect all material errors, omissions or misstatements, and any unchecked data or information should not contain any material errors, omissions or misstatements. A DOE's verification opinion applies to 100 per cent of the data and information, even if the DOE may not have checked the entire data set and information.	☒	Refer to CRA's Verification Work Plan in Annex D of the Verification Report.	Yes ☒ No ☐
Applying materiality does not mean that identified errors are not corrected; if an error, omission or misstatement is identified by the DOE, regardless of whether it is material or not, the DOE shall request project participants to address it.	☒	No errors, omissions, or misstatements were identified.	Yes ☒ No ☐
Consideration of Materiality in Conducting the Verification			
The DOE should:			
Apply verification plans, audit procedures and sampling plans;	☒	Refer to the Verification plan in Annex D of the Verification Report.	Yes ☒ No ☐

CDM Verification Checklist Conestoga-Rovers & Associates

Verification Requirements		Comments	Peer Reviewer
Assess potential errors, omissions and misstatements against the materiality threshold to determine whether they are material individually or in aggregate and whether further audit procedures are needed.	☒	Refer to Section 1.3 of the Verification Report.	Yes ☒ No ☐
If an error, omission or misstatement is detected, the DOE should be aware that it may not be an isolated occurrence and may be a systemic reoccurring error. For example, other errors may exist if the DOE identifies that the error, omission or misstatement arose from a breakdown in the project participants' internal quality control and quality assurance system.	☒	Not applicable.	Yes ☒ No ☐
In cases where an immaterial error, omission or misstatement is detected, the DOE should determine whether additional audit procedures should be conducted in order to reach a reasonable level of assurance that the claimed emission reductions or removals are free from material error, omission or misstatement.	☒	Not applicable.	Yes ☒ No ☐
In cases where a material error, omission or misstatement is detected, the DOE may, depending on the circumstances of the error, immediately request project participants to address it, or conduct additional audit procedures to confirm or determine the context and magnitude of the error, omission or misstatement and then request project participants to address it.	☒	Not applicable.	Yes ☒ No ☐
In both paragraphs 369 and 370 above, any errors, omissions or misstatements, material or immaterial, are to be addressed.	☒	No material or immaterial, errors, omissions, or misstatements detected.	Yes ☒ No ☐
If further audit procedures are necessary, the DOE may consider whether the overall verification plans and sampling plans need to be revised.	☒	Not applicable.	Yes ☒ No ☐
Desk Review			
Apply standard auditing techniques to assess the quality of the information, including, but not limited to:			

CDM Verification Checklist Conestoga-Rovers & Associates

Verification Requirements		Comments	Peer Reviewer
A review of the data and information presented to verify their completeness;	☒	Refer to Section 2.2 of the Verification Report for a list of the data reviewed.	Yes ☒ No ☐
A review of the registered monitoring plan, the monitoring methodology including applicable tool(s) and, where applicable, the applied standardized baseline, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures;	☒	Refer to Section 2.0 of the Verification Report.	Yes ☒ No ☐
An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions;	☒	Refer to Section 2.0 of the Verification Report.	Yes ☒ No ☐
On-Site Assessment			
On-site assessment will consist of the following:			
An assessment of the implementation and operation of the registered CDM project activity or included CDM CPA as per the registered PDD or CPA-DD or any approved revised PDD or CPA-DD;	☒	The Project Activity and its operation are in accordance with the registered VCS PD. This has been confirmed during Site Visit and interview with the personnel responsible for operation and maintenance of Project Activity. Refer to Section 2.3 and 2.4 of the Verification Report for details.	Yes ☒ No ☐
A review of information flows for generating, aggregating and reporting the monitoring parameters;	☒	Refer to Section 4.2.1 of the Verification Report for details	Yes ☒ No ☐
Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the registered monitoring plan;	☒	Refer to Section 2.3 of the Verification Report for details.	Yes ☒ No ☐
A cross check between information provided in the monitoring report and data from other sources such as plant logbooks, inventories, purchase records or similar data sources;	☒	Refer to Section 2.1 of the Verification Report for details.	Yes ☒ No ☐

CDM Verification Checklist Conestoga-Rovers & Associates

Verification Requirements		Comments	Peer Reviewer
A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PDD or CPA-DD, the applied methodology including applicable tool(s), and, where applicable, the applied standardized baseline;	☒	Refer to Section 2.1 of the Verification Report for details.	Yes ☒ No ☐
A review of calculations and assumptions made in determining the GHG data and emission reductions;	☒	The CRA Project Team completed working paper recalculations. Refer to Section 4.2.3 of the Verification Report for details.	Yes ☒ No ☐
An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters;	☒	CRA confirmed that quality control and quality assurance procedures are sufficient and in place. Refer to Section 2.1 of the Verification Report for details.	Yes ☒ No ☐
Sampling Approach			
The DOE shall apply standard auditing techniques to assess the quality of the information, including but not limited to:			
Sampling approach in accordance with the "Standard for sampling and surveys for CDM project activities and programme of activities", including: i) A random sampling for cases where the project participants or the coordinating/managing entity did not apply a sampling approach; ii) An acceptance sampling or another sampling approach for cases where the project participants or the coordinating/managing entity applied a sampling approach.	☒	The CRA Project Team sampled all the data associated with the Project Activity and performed recalculations. Refer to Section 2.2 of the Verification Report for details.	Yes ☒ No ☐
Where no specific means of verification is specified, the DOE should apply the standard auditing techniques described in paragraph 373 above.	☒	Not applicable.	Yes ☒ No ☐
CAR/FAR/CL			
Raise a CAR if any of the following occur:			

CDM Verification Checklist
Conestoga-Rovers & Associates

Verification Requirements		Comments	Peer Reviewer
Non-compliance with the registered monitoring plan, the methodology or the standardized baseline is found in monitoring and reporting and has not been sufficiently documented by the project participants or the coordinating/managing entity, or if the evidence provided to prove conformity is insufficient;	☒	Not applicable, no CARs were raised throughout the verification process.	Yes ☒ No ☐
Modifications to the implementation, operation and monitoring of the registered CDM project activity, PoA or CPA has not been sufficiently documented by the project participants or the coordinating/managing entity;	☒	There was no discrepancy found with respect to implementation, operation and monitoring of the registered Project Activity.	Yes ☒ No ☐
Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions;	☒	There was no discrepancy found with respect to assumptions, data or calculations of emission reductions.	Yes ☒ No ☐
Issues identified in a FAR during validation to be verified during verification or previous verification(s) have not been resolved by the project participants or the coordinating/managing entity.	☒	There are no pending issues from the previous verification or validation process. No FAR was raised previous verification and validation process.	Yes ☒ No ☐
Raise a CL if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.	☒	Seventeen (17) CLs were raised throughout the verification process and they were all closed out.	Yes ☒ No ☐
All CARs and CLs raised during verification shall be resolved prior to submitting a request for issuance.	☒	All closed out. Refer to Section 2.5 of the Verification Report for details.	Yes ☒ No ☐
Raise a FAR during verification for actions if the monitoring and reporting require attention and/or adjustment for the next verification period.	☒	There was no discrepancy found with respect to monitoring and reporting that requires attention, hence no FAR was raised.	Yes ☒ No ☐
Report on all CARs, CLs and FARs in its verification and certification report. This reporting shall be undertaken in a transparent manner that allows the reader to understand the issue raised, the responses provided by the project participants or the coordinating/managing entity, the means of verification of such responses and references to any resulting changes in the monitoring report or supporting annexes.	☒	Refer to Section 2.5 and throughout the Verification Report for details of the CLs.	Yes ☒ No ☐

CDM Verification Checklist Conestoga-Rovers & Associates

Verification Requirements		Comments	Peer Reviewer
Compliance of the Monitoring Report with the Monitoring Report Form			
The DOE shall determine whether the monitoring report was completed using the valid version of the applicable monitoring report form taking into account the grace period of the form if it has been revised.	☒	The monitoring report was completed using Version 3.3 of the VCS monitoring report which is the most recent valid version.	Yes ☒ No ☐
The DOE shall provide a statement regarding the compliance of the monitoring report with the relevant form and instructions therein.	☒	Yes, the actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan and the approved methodology including applicable tool(s).	Yes ☒ No ☐
Compliance of the Project Implementation In Accordance with the Registered Project Design Document			
Identify any concerns related to the conformity of the actual project or programme activity and its operation with the registered project design document or programme design document and determine whether	☒	There is no discrepancy found with respect to implementation and operation of the Project Activity. The Project was implemented exactly as per VCS PD. See Sections 4.1, of the Verification Report for details.	Yes ☒ No ☐
The implementation and operation of the registered CDM project activity or PoA and CPA has been conducted in accordance with the description contained in the registered PDD or PoA-DD and CPA-DD; or	☒	See above.	Yes ☒ No ☐
Any deviation or the proposed or actual changes in the implementation or operation of the registered CDM project activity or PoA and CPA comply with the requirements of the Project standard.	☒	See above.	Yes ☒ No ☐
By means of an on-site inspection, assess that all physical features (technology, project equipment, and monitoring and metering equipment) of the registered CDM project activity or included CDM CPA in the registered PDD or CPA-DD are in place and that the project participants or the coordinating/managing entity have operated the project activity or PoA and CPA as per the registered PDD or PoA-DD and CPA-DD or any approved revised PDD or PoA-DD and CPA-DD. If an on-site inspection is not conducted, the DOE shall justify the rationale of the decision.	☒	The Project Activity and its operation are in accordance with the registered VCS PD. This has been confirmed during the Site Visit and interview with the personal responsible for operation and maintenance of project activity. The Project was implemented exactly as per VCS PD. See Sections 4.1 of the Verification Report for details.	Yes ☒ No ☐

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Verification Requirements		Comments	Peer Reviewer
For each monitoring period, the DOE shall report:			
The implementation status of the registered CDM project activity or PoA and CPA. For registered CDM project activities or included CDM CPAs that consist of more than one site, the DOE shall describe the status of implementation and starting date of operation for each site. For registered CDM project activities or included CDM CPAs with phased implementation, the DOE shall state the progress of the project activity or CPA achieved in each phase under verification. If the phased implementation is delayed, the DOE shall describe the reasons and present the expected implementation dates;	☒	Section 4.1 of the Verification Report addresses this Verification Requirement	Yes ☒ No ☐
The actual operation of the registered CDM project activity or included CDM CPA;	☒	Section 4.1 of the Verification Report addresses this Verification Requirement	Yes ☒ No ☐
Information (data and variables) provided in the monitoring report that is different from that stated in the registered PDD or PoA-DD and CPA-DD or any approved revised PDD or PoA-DD and CPA-DD, and has caused an increase in estimates of the emission reductions in the current monitoring period or is highly likely to increase the estimates of emission reductions in the future monitoring periods;	☒	Not applicable.	Yes ☒ No ☐
An opinion on the cause of any increase in the actual GHG emission reductions achieved by the registered non-A/R CDM project activity or included non-A/R CDM CPA in the current monitoring period that was reported in monitoring report;	☒	Not applicable. Refer to Section 4.3.2 of the Verification Report for details.	Yes ☒ No ☐

CDM Verification Checklist Conestoga-Rovers & Associates

Verification Requirements		Comments	Peer Reviewer
Compliance of the Registered Monitoring Plan with the Monitoring Methodology Including Applicable Tool(s) and the Standardized Baseline			
The DOE shall determine whether the registered monitoring plan is in accordance with the applied methodology including applicable tool(s) and, where applicable, the applied standardized baseline.	☒	The monitoring implemented in compliance with the monitoring plan and monitoring plan is in accordance with the approved methodology applied by the VCS project. Refer to Section 4.1 of the Verification Report for details.	Yes ☒ No ☐
For monitoring aspects that are not specified in the methodology and, where applicable, the standardized baseline, particularly in the case of small-scale methodologies (e.g. additional monitoring parameters, monitoring frequency and calibration frequency), the DOE should bring to the attention of the Board issues which may enhance the level of accuracy and completeness of the registered monitoring plan.	☒	There is no such issue found.	Yes ☒ No ☐
The DOE shall provide a statement as to whether the registered monitoring plan is in accordance with the approved methodology and, where applicable, the approved standardized baseline that is(are) applied in the registered PDD or CPA-DD or an approved revised PDD or CPA-DD.	☒	Yes, the actual monitoring systems and procedures comply with the registered monitoring plan and the approved methodology including applicable tool(s).	Yes ☒ No ☐
Compliance of Monitoring Activities with the Registered Monitoring Plan			
The DOE shall determine whether the monitoring of parameters related to the GHG emission reductions in the registered CDM project activity or included CDM CPA has been implemented in accordance with the registered monitoring plan.	☒	Refer to Sections 4.2.1 and 4.2.2 of the Verification Report for details.	Yes ☒ No ☐
The DOE shall determine whether:			
The registered monitoring plan has been properly implemented and followed by the project participants or the coordinating/managing entity;	☒	Refer to Section 4.1 of the Verification Report. The monitoring plan is implemented as per registered VCS PD	Yes ☒ No ☐

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Verification Requirements		Comments	Peer Reviewer
All parameters stated in the registered monitoring plan and relevant Board decisions have been monitored and updated as applicable, including: • Project emission parameters; • Baseline emission parameters; • Leakage parameters; • Management and operational system: the responsibilities and authorities for monitoring and reporting are in accordance with the responsibilities and authorities stated in the registered monitoring plan;	☒	Only Baseline Emissions exist in the Project. Management systems are reviewed in Section 4.2.3 of the Verification Report. All parameters are monitored as per monitoring plan contained in registered VCS PD.	Yes ☒ No ☐
The equipment used for monitoring is in accordance with section 11.4.5 below and is controlled and calibrated in accordance with the registered monitoring plan, the applied methodology, the applied standardized baseline, Board guidance, local/national standards, or as per the manufacturer's specification;	☒	The accuracy of electrical meters was confirmed. Refer to Section 4.3 the Verification Report for details.	Yes ☒ No ☐
Monitoring results are consistently recorded as per approved frequency;	☒	The monitoring results are found to be consistent with records and approved frequency. This was confirmed by CRA during the Site Visit.	Yes ☒ No ☐
Quality assurance and quality control procedures have been applied in accordance with the registered monitoring plan.	☒	Yes, quality assurance and quality control procedures as per registered VCS PD. Refer to Section 2.1 of the Verification Report.	Yes ☒ No ☐
Where the project participants or the coordinating/managing entity applied a sampling approach to determine data and parameters monitored, the DOE shall assess the compliance of the sampling efforts and surveys with the validated sampling plan in accordance with the "Standard for sampling and surveys for CDM project activities and programme of activities".	☒	Refer to Section 4.2.2 of the Verification Report for details.	Yes ☒ No ☐
The DOE shall state whether monitoring has been carried out in accordance with the registered monitoring plan.	☒	CRA confirmed that the monitoring has been carried out in accordance with the registered monitoring plan.	Yes ☒ No ☐

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Verification Requirements		Comments	Peer Reviewer
The DOE shall list each parameter required by the registered monitoring plan and state how it verified the information flow (from data generation, aggregation, to recording, calculation and reporting) for these parameters including the values in the monitoring reports.	☒	Refer to Section 4.2.1 of the Verification Report for details.	Yes ☒ No ☐
Compliance with Calibration Frequency Requirements for Measuring Instruments			
Determine whether the calibration of the measuring equipment that has an impact on the claimed emission reductions is conducted by the project participants or the coordinating/managing entity at a frequency specified in the applied monitoring methodology, the applied standardized baseline and/or the registered monitoring plan.	☒	The nature of electrical meters is digital and as such they are only required to be "meter tested". No actual calibrations performed. Refer to Section 4.3 of the Verification Report for details.	Yes ☒ No ☐
If it is identified that the calibration has been delayed and the calibration has been implemented after the monitoring period in consideration (i.e. the results of delayed calibration are available), the DOE may conclude its verification, provided the following conservative approach is adopted in the calculation of emission reductions:			
Applying the maximum permissible error of the instrument to the measured values taken during the period between the scheduled date of calibration and the actual date of calibration, if the results of the delayed calibration do not show any errors in the measuring equipment, or if the error is smaller than the maximum permissible error, or	☒	No calibration delay observed during the monitoring period.	Yes ☒ No ☐
Applying the error identified in the delayed calibration test, if the error is beyond the maximum permissible error of the measuring equipment	☒	See above.	Yes ☒ No ☐
Confirm that the error has been applied			
In a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed emission reductions	☒	No calibration delay observed during the monitoring period. Meter Test Report shows that revenue and check meters are reading within the tolerable error of 2 percent.	Yes ☒ No ☐

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Verification Requirements		Comments	Peer Reviewer
For all measured values taken during the period between the scheduled date of calibration and the actual date of calibration	☒	Not applicable.	Yes ☒ No ☐
In cases where the results of the delayed calibration are not available, or the calibration has not been conducted at the time of verification, the DOE, prior to finalizing verification, shall request the project participants or the coordinating/managing entity to conduct the required calibration and shall determine whether the project participants or the coordinating/managing entity have calculated the emission reductions conservatively.	☒	No calibration delay observed during monitoring period.	Yes ☒ No ☐
In cases where the DOE determines that it is not possible for the project participants or the coordinating/managing entity to conduct the calibration at a frequency specified by either the applied methodology, the applied standardized baseline, guidance provided by the Board, and/or the registered monitoring plan due to reasons beyond the control of the project participants or the coordinating/managing entity, ⁴³ the DOE shall follow the applicable requirements related to post-registration changes	☒	No calibration delay observed during monitoring period.	Yes ☒ No ☐
In cases where neither the applied monitoring methodology, where applicable, the applied standardized baseline nor the registered monitoring plan specify any requirements for calibration frequency for measuring equipment, the DOE shall determine whether the equipment is calibrated either in accordance with the specifications of the local/national standards, or as per the manufacturer's specification. If neither local/national standards nor the manufacturer's specification are available, international standards may be used. Refer to the appendix below for an illustrative example to apply the above requirements.	☒	All the meters are calibrated as per the frequency described under registered VCS PD.	Yes ☒ No ☐
Report whether the calibration is conducted at the frequency as specified by the methodology, the standardized baseline and/or the registered monitoring plan.	☒	Refer to Section 4.3 of the Verification Report for details.	Yes ☒ No ☐

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Verification Requirements		Comments	Peer Reviewer
Assessment of Data and Calculations on Emission Reductions or Net Removals			
Assess the data and calculations of GHG emission reductions or net anthropogenic GHG removals achieved by/resulting from the registered CDM project activity or included CDM CPA by the application of the selected methodology and, where applicable, the selected standardized baseline.	☒	Working paper re-calculation was completed by CRA. Refer to Section 4.2.1 of the Verification Report for details.	Yes ☒ No ☐
Determine whether:			
A complete set of data for the specified monitoring period is available. If only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, opt to either raise a CAR for the project participants to comply with the requirements of appendix 1 of the Project standard or submit a request for deviation prior to submitting request for issuance, if appropriate;	☒	The complete set of data has been checked and there has been no discrepancies observed. Annual data of net electricity generated was supplied as per Section 2.2 of the Verification Report.	Yes ☒ No ☐
Information provided in the monitoring report has been cross-checked with other sources such as plant log books, inventories, purchase records, laboratory analysis;	☒	Confirmed during Site Visit check of the SCADA system.	Yes ☒ No ☐
Calculations of baseline GHG emissions or baseline net GHG removals, project GHG emissions or actual net GHG removals and leakage GHG emissions, have been carried out in accordance with the formulae and methods described in the registered monitoring plan, the applied methodology and, where applicable, the applied standardized baseline;	☒	Working paper re-calculation was completed by CRA. Refer to Section 4.2.3 of the Verification Report for details.	Yes ☒ No ☐
Any assumptions used in emission calculations have been justified	☒	No assumptions made.	Yes ☒ No ☐
Appropriate emission factor, IPCC default values, GWPs and other reference values have been correctly applied;	☒	The appropriate use of the approved emission factor was confirmed.	Yes ☒ No ☐

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Verification Requirements		Comments	Peer Reviewer
For a registered CDM project activity or an included CDM CPA using an approved standardized baseline that standardizes baseline emissions, the standardized value(s) of the parameter(s) was(were) applied using the correct version of the applied standardized baseline in accordance with the Project standard;	☒	Confirmed, refer to Section 4.2.3 of the Verification Report for details.	Yes ☒ No ☐
The pro-rata approach was correctly applied to the calculations of GHG emission reductions or net anthropogenic GHG removals in accordance with the Project standard, if the monitoring period starts before 31 December 2012 and ends anytime thereafter;	☒	Not applicable.	Yes ☒ No ☐
The first day when CERs are being claimed is correctly specified in accordance with the Project cycle procedure, if the current monitoring period covers the first day of the renewed crediting period.	☒	Not applicable.	Yes ☒ No ☐
The verification and certification report shall contain:			
An indication of whether data were not available because activity levels or non-activity parameters were not monitored in accordance with the registered monitoring plan as well as any actions taken by the DOE to ensure that the most conservative assumption theoretically possible has been made;	☒	Not applicable, all data was made available.	Yes ☒ No ☐
A description of how the DOE cross-checked reported data;	☒	Refer to Section 4.3.1 of the Verification Report for details.	Yes ☒ No ☐
A confirmation that appropriate methods and formulae for calculating baseline GHG emissions or baseline net GHG removals, project GHG emissions or actual net GHG removals and leakage GHG emissions have been followed;	☒	Refer to Section 4.2.3 of the Verification Report for details.	Yes ☒ No ☐
An opinion as to whether assumptions, emission factors and default values that were applied in the calculations have been justified;	☒	Refer to Section 4.2.2 of the Verification Report for details.	Yes ☒ No ☐

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Verification Requirements		Comments	Peer Reviewer
A confirmation that the pro-rata approach was correctly applied to the calculations of GHG emission reductions or net anthropogenic GHG removals, where applicable;	☒	Not applicable.	Yes ☒ No ☐
A confirmation that the first day in which CERs are being claimed has been correctly specified, where applicable.	☒	Not applicable.	Yes ☒ No ☐
Post-Registration Changes			
The DOE shall apply the requirements in section 7.3 mutatis mutandis to validate the information provided by the project participants or the coordinating/managing entity.	☒	Not applicable.	Yes ☒ No ☐
The DOE shall determine whether the post-registration changes do not require prior approval by the Board in accordance with the appendix to the Project standard.	☒	Not applicable.	Yes ☒ No ☐
If the DOE determines that the proposed or actual post-registration changes to the registered CDM project activity or PoA and/or CPA comply with the relevant CDM requirements, the DOE shall issue a positive validation opinion and submit a request for approval of changes either prior to or together with the request for issuance in accordance with relevant requirements related to changes to the registered CDM project activity or PoA in the Project cycle procedure.	☒	Not applicable.	Yes ☒ No ☐
If the DOE determines that the proposed or actual post-registration changes to the registered CDM project activity or PoA and/or CPA do not comply with the relevant CDM requirements, the DOE shall issue a negative validation opinion.	☒	Not applicable.	Yes ☒ No ☐
If the DOE determines that the first or non-first proposed specific-case CDM CPA(s), which is(are) submitted for the inclusion in the registered CDM PoA, complies with the latest version of the registered CDM PoA and the applicable requirements in accordance with section 10.2.3 below, it shall:	☒	Not applicable.	Yes ☒ No ☐

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Verification Requirements		Comments	Peer Reviewer
For the first proposed specific-case CDM CPA(s), issue a positive validation opinion and submit a request for approval of changes in accordance with relevant requirements in the Project cycle procedure; or	☒	Not applicable.	Yes ☒ No ☐
For the non-first proposed specific-case CDM CPA, include the CPA in the PoA in accordance with the relevant requirements in the Project cycle procedure.	☒	Not applicable.	Yes ☒ No ☐
For the validation of the post-registration changes or the inclusion of a CPA(s), the DOE shall prepare a validation report for post-registration changes or a validation report(s) for the inclusion of CPAs using the valid version of the applicable validation report form for post-registration changes or of the validation report form for the inclusion of CPAs, taking into account the grace period of the form if it has been revised.	☒	Not applicable.	Yes ☒ No ☐
When completing the validation report form for post-registration changes or the validation report for the inclusion of CPAs, the DOE shall follow the instructions therein.	☒	Not applicable.	Yes ☒ No ☐
The DOE shall determine whether:			
The revised PDD or revised PoA-DD (with its revised generic CPA-DD part) and specific-case CPA-DD, which was(were) submitted for the request for approval of changes (in both track-change and clean versions), was(were) completed using the valid version of the applicable PDD or PoA-DD and CPA-DD form; or	☒	Not applicable.	Yes ☒ No ☐
The specific-case CPA-DD, which was submitted for the validation on the inclusion of the CPA, was completed using the valid version of the applicable CPA-DD form.	☒	Not applicable.	Yes ☒ No ☐

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Verification Requirements		Comments	Peer Reviewer
If the project participants or coordinating/managing entity used a later valid version of the PDD or PoA-DD and CPA-DD form for the revised PDD or revised PoA-DD and specific- case CPA-DD than the version of the PDD or PoA-DD and CPA-DD form of the registered PDD or PoA-DD and specific-case CPA-DD, the DOE shall determine whether information transferred to the later valid version of the PDD or PoA-DD and CPA-DD form is materially the same as that in the registered PDD or PoA-DD and specific-case CPA-DD.	☒	Not applicable.	Yes ☒ No ☐
In its validation report for post-registration changes or validation report(s) for the inclusion of CPAs, the DOE shall:			
Provide all its applied approaches, findings and conclusion on: 1) The compliance of the revised PDD, the revised PoA-DD and specific-case CPA-DD (for post-registration changes), or the specific-case CPA-DD (for inclusion of CPAs) with the valid version of the applicable form(s) and instructions therein, as applicable; 2) Whether information transferred to the later valid version of the PDD or PoA-DD and CPA-DD form is materially the same as that in the registered PDD or PoA-DD and specific-case CPA-DD, as applicable; 3) The requirements relevant to the proposed or actual post-registration changes in sections 9.2–9.7 below and 10.1–10.2.2 below or to the proposed inclusion of a CPA(s) in section 10.2.3 below, as applicable;	☒	Not applicable.	Yes ☒ No ☐
Report on all items listed in paragraph 176 above except paragraph 176(c) above.	☒	Not applicable.	Yes ☒ No ☐

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Verification Requirements		Comments	Peer Reviewer
Temporary Deviations from the Registered Monitoring Plan and/or Monitoring Methodology			
Determine whether there are deviations from the monitoring plan in the registered PDD, PoA-DD or CPA-DD, or the monitoring plan in an approved revised PDD, PoA-DD or CPA-DD (hereinafter referred to as the registered monitoring plan), the applied methodology and/or the applied standardized baseline, and, if there are, determine whether the deviations comply with the relevant requirements in the Project standard.	☒	The CRA Project Team notes that a project description deviation was outlined by the Project Proponent in their monitoring report. The CRA Project Team addressed this project description deviation in Section 3.3 of the Verification Report and deemed that it was acceptable. As a result, the CRA Project Team approved the deviation.	Yes ☒ No ☐
If the DOE identifies that the project participants or the coordinating/managing entity have deviated from the registered monitoring plan, the applied methodology, and/or the applied standardized baseline, and where the provisions of the appendix to the Project standard do not apply, the DOE shall seek prior approval from the Board with respect to the acceptability of the deviations in accordance with the Project cycle procedure.	☒	Refer to Section 3.3 of the Verification Report for details.	Yes ☒ No ☐
The DOE shall determine whether the deviation is likely to lead to a reduction in the accuracy of the calculation of emission reductions. In cases where the DOE considers that the deviation will lead to a reduction in the accuracy of the calculation of emission reductions, the DOE shall request the project participants or the coordinating/managing entity to apply conservative assumptions or discount factors to the calculations to the extent required to ensure that emission reductions will not be overestimated as a result of the deviation.	☒	Refer to Section 3.3 of the Verification Report for details. The CRA Project Team notes that the deviation aids in improving the accuracy of the calculations.	Yes ☒ No ☐
For cases where a deviation from the registered monitoring plan may be applicable to the monitoring period under verification, and part of the subsequent monitoring period, the DOE shall determine the exact period to which the deviation applies.	☒	Refer to Section 3.3 of the Verification Report for details.	Yes ☒ No ☐

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Verification Requirements		Comments	Peer Reviewer
Corrections			
The DOE shall determine that any corrections to project or programme information or parameters fixed at validation, as described in the registered PDD, PoA-DD or CPA-DD, made by project participants or the coordinating/managing entity in a revised PDD, PoA-DD or CPA-DD comply with the relevant requirements in the Project standard.	☒	Not applicable.	Yes ☒ No ☐
If the DOE identifies that the project participants or the coordinating/managing entity have made corrections to project or programme information or parameters fixed at validation, the DOE shall determine whether:			
The corrected information is an accurate reflection of actual project or programme information; and/or	☒	Refer to Section 3.3 of the Verification Report for details.	Yes ☒ No ☐
The corrected parameters are in accordance with the applied methodology, the registered monitoring plan and/or the applied standardized baseline.	☒	Not applicable.	Yes ☒ No ☐
The DOE shall state how the corrected information accurately reflects the actual project or programme information and/or how the corrected parameters reflect the application of the applied methodology, the registered monitoring plan and/or the applied standardized baseline.	☒	Refer to Section 3.3 of the Verification Report for details.	Yes ☒ No ☐
Changes to the Start Date of the Crediting Period			
If the project participants or the coordinating/managing entity wish to change the start date of the crediting period of the registered CDM project activity or included CPA in accordance with the relevant requirements in the Project standard, the DOE shall determine whether the proposed changes result in a less conservative baseline.	☒	The start date was altered at the time of validation of the Project Activity. Refer to Section 3.3 of the Verification Report for details.	Yes ☒ No ☐

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Verification Requirements		Comments	Peer Reviewer
Permanent Changes from the Registered Monitoring Plan or Monitoring Methodology			
Determine whether there are permanent changes from the registered monitoring plan, the applied methodology and/or the standardized baseline, and, if there are, determine whether the permanent changes comply with the relevant requirements in the Project standard.	☒	Not Applicable.	Yes ☒ No ☐
Determine whether the changes to the registered monitoring plan described in the revised PDD, PoA-DD or CPA-DD are in compliance with the applied methodology and, where applicable, the applied standardized baseline and do not reduce the level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan.	☒	Refer to Section 3.3 of the Verification Report for details.	Yes ☒ No ☐
In cases where the proposed changes refer to a later valid version of the applied methodology and/or the applied standardized baseline in the registered PDD, PoA-DD or CPA-DD, the DOE shall determine whether the application of all the requirements in any later valid version of the applied methodology and/or the applied standardized baseline does not impact the conservativeness of the monitoring and verification process, including the related emission reduction calculations.	☒	Not Applicable.	Yes ☒ No ☐
Determine whether the permanent changes are likely to lead to a reduction in the accuracy of the calculation of emission reductions. In cases where the DOE considers that the permanent changes will lead to a reduction in the accuracy of the calculation of emission reductions, the DOE shall request the project participants or the coordinating/managing entity to apply conservative assumptions or discount factors to the calculations to the extent required to ensure that emission reductions will not be overestimated as a result of the permanent change.	☒	Not Applicable.	Yes ☒ No ☐

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Verification Requirements		Comments	Peer Reviewer
The DOE shall state its opinion on whether the permanent changes comply with the relevant requirements related to the permanent changes from the registered monitoring plan, the applied methodology and/or the applied standardized baseline in the Project standard.	☒	Not Applicable.	Yes ☒ No ☐
The DOE shall determine whether there are proposed or actual changes to the project design of a registered CDM project activity or an included CDM CPA or to the programme design of a registered CDM PoA, and, if there are, determine whether the changes comply with the relevant requirements in the Project standard.	☒	Not Applicable.	Yes ☒ No ☐
In case of actual changes, the DOE shall, by means of an on-site inspection and review of the submitted revised PDD, PoA-DD or CPA-DD by the project participants or the coordinating/managing entity, which describes the nature and extent of the actual changes, determine whether this description accurately reflects the implementation, operation and monitoring of the modified CDM project activity, PoA or CPA.	☒	Not Applicable.	Yes ☒ No ☐
The DOE shall conduct an on-site inspection to assess the impacts of the actual changes on the compliance of the monitoring plan, the level of accuracy of the monitoring activity, the applied monitoring methodology including applicable tool(s) and/or, where applicable, the applied standardized baseline.	☒	Not Applicable.	Yes ☒ No ☐
The DOE shall, by means of reviewing the revised PDD, PoA-DD or CPA-DD against applicable additionality and methodological requirements, determine whether the proposed or actual changes would adversely affect the conclusions of the validation report of the registered PDD, PoA-DD or CPA-DD with regard to:			
Additionality of the registered CDM project activity or PoA;	☒	The following deviation noted in Section 3.3 of the Verification Report has been approved by CRA as it does not impact the compliance of the Project Activity with the VCS methodology or standard, additionality or the appropriateness of the baseline scenario and therefore remains in compliance with the VCS rules	Yes ☒ No ☐

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Verification Requirements		Comments	Peer Reviewer
Scale of the registered CDM project activity or included CDM CPA;	☒	See above.	Yes ☒ No ☐
Applicability and application of the approved baseline methodology and, where applicable, the approved standardized baseline under which the CDM project activity, PoA or CPA has been registered or included; or	☒	See above.	Yes ☒ No ☐
The compliance of the monitoring plan with the applied monitoring methodology and, where applicable, the applied standardized baseline;	☒	See above.	Yes ☒ No ☐
The eligibility criteria of the registered CDM PoA.	☒	See above.	Yes ☒ No ☐
If the proposed or actual changes affect the additionality of the registered CDM project activity, then the DOE shall confirm that:			
If investment analysis has been used to demonstrate additionality, project participants have only modified the key parameters in the original spreadsheet calculations affected by the proposed or actual changes to the project activity;	☒	Not Applicable.	Yes ☒ No ☐
If only barriers have been claimed to demonstrate additionality, project participants have demonstrated that the barriers are still valid under the new circumstances.	☒	Not Applicable.	Yes ☒ No ☐
The following applies to a registered CDM project activity using an approved standardized baseline that standardizes additionality instead of paragraph 321 above: If the proposed or actual changes affect the additionality of the project activity, then the DOE shall confirm that the project activity complies with the positive list of the applied standardized baseline in the registered PDD.	☒	Not Applicable.	Yes ☒ No ☐
The DOE shall confirm that the applied methodology including applied tools and/or the applied standardized baseline do not impact on the conservativeness of the monitoring and verification process and the related emission reduction calculations in cases where:			

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Verification Requirements		Comments	Peer Reviewer
The proposed or actual changes impact on the implementation of the registered CDM project activity or PoA or the included CDM CPA;	☒	Not Applicable.	Yes ☒ No ☐
The original methodology and/or the original standardized baseline would no longer be applicable;	☒	Not Applicable.	Yes ☒ No ☐
The project participant or the coordinating/managing entity applies all the requirements in: (i) Any later valid version of the methodology and/or the standardized baseline; or (ii) Another methodology and/or another standardized baseline that is(are) applicable to the registered CDM project activity or PoA.	☒	Not Applicable.	Yes ☒ No ☐
The DOE shall assess whether the revised PDD, PoA-DD or CPA-DD complies with all the requirements in:			
The applied methodology, tools and/or standardized baseline;	☒	Not Applicable.	Yes ☒ No ☐
Any later valid version of the methodology and/or the standardized baseline; or	☒	Not Applicable.	Yes ☒ No ☐
Another methodology and/or another standardized baseline that is(are) applicable to the registered CDM project activity or PoA.	☒	Not Applicable.	Yes ☒ No ☐
The DOE shall state its opinion on whether the proposed or actual changes comply with the relevant requirements in the Project standard related to changes to the project design of a registered CDM project activity or an included CDM CPA or to the programme design of a registered CDM PoA.	☒	Not Applicable.	Yes ☒ No ☐

CDM Verification Checklist
Conestoga-Rovers & Associates

Verification Requirements		Comments	Peer Reviewer
Verification and Certification Report			
The DOE contracted to conduct a verification and certification of the registered CDM project activity or PoA shall prepare a verification and certification report using the valid version of the applicable verification and certification report form, taking into account the grace period of the form if it has been revised.	☒	Refer to the attached Verification Report on the most recent Version 3.3 of the VCS Verification Report template.	Yes ☒ No ☐
When completing the verification and certification report form, the DOE shall follow the instructions therein.	☒	The Verification Report follows the structure as per Version 3.3 of the VCS Verification Report Template.	Yes ☒ No ☐
The verification and certification report shall give an overview of the verification process used by the DOE in order to arrive at its verification conclusions. All verification findings shall be identified and justified.	☒	Refer to Section 2.0 of the Verification Report.	Yes ☒ No ☐
The DOE shall report the following:			
A summary of the verification process, the scope of verification and the conclusion;	☒	Refer to Section 2.0 and 5.0 of the Verification Report.	Yes ☒ No ☐
Details of the verification team, technical experts, internal reviewers involved, together with their roles in the verification activity and details of who conducted the on-site inspection;	☒	Refer to the cover page of the Verification Report as well as Section 2.3.	Yes ☒ No ☐
Findings of the desk review, on-site inspection and sampling approach used by the DOE. Where the DOE applied a sampling approach to the on-site inspection, the DOE shall include a description of how the sample size was determined and field check was carried out;	☒	Below are references to the appropriate Sections in the Verification Report: - Findings – Section 2.5 - On-Site inspection – Section 2.4 - Sampling Approach – Section 2.2	Yes ☒ No ☐
All its applied approaches, findings and conclusions as to requirements set out in section 11.4 above;	☒	Refer to Section 2.0 of the Verification Report for details.	Yes ☒ No ☐

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Verification Requirements		Comments	Peer Reviewer
A list of each parameter specified by the registered monitoring plan and a statement on how the values in the monitoring report have been verified;	☒	Refer to Section 4.2 of the Verification Report for details.	Yes ☒ No ☐
A statement on whether any post-registration changes to the registered PDD have been approved by the Board or will be submitted together with the request for issuance;	☒	None such statements required.	Yes ☒ No ☐
An assessment and close-out of any CARs, CLs or FARs issued to the project participants or the coordinating/managing entity;	☒	Refer to Section 2.5 of the Verification Report for details.	Yes ☒ No ☐
An assessment of remaining issues from the previous verification period, if appropriate;	☒	Not applicable, no remaining issues from the previous verification period.	Yes ☒ No ☐
Information on quality control within the team and in the verification process;	☒	Refer to Section 4.3 of the Verification Report for details.	Yes ☒ No ☐
A conclusion on the verified amount of emission reductions achieved.	☒	Refer to Section 5.0 of the Verification Report for details.	Yes ☒ No ☐
Where the DOE applied the concept of materiality in planning and conducting a verification of the registered CDM project activity in accordance with section 11.2.3 above, it shall report:			
The risks, the risk assessment undertaken and how the verification plans and sampling plans were designed to respond to these risks and ensure that all material errors, omissions or misstatements were detected;	☒	Refer to Section 2.1 of the Verification Report for details.	Yes ☒ No ☐
Whether and how the verification plans and sampling plans were revised to take into account the need for further audit procedures due to the nature/type of errors, omissions or misstatements detected;	☒	Refer to Section 2.1 of the Verification Report for details.	Yes ☒ No ☐

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Verification Requirements		Comments	Peer Reviewer
How materiality was applied in determining whether a detected error, omission or misstatement was material or immaterial either individually or in aggregate.	☒	Refer to Section 1.3 of the Verification Report for details.	Yes ☒ No ☐
The DOE shall describe all documentation supporting verification and shall make it available on request.			
The DOE shall, based on its verification, certify in writing that, during the specified time period, the registered CDM project activity or some or all of the included CDM CPAs in the registered CDM PoA achieved the verified amount of reductions in anthropogenic emissions by sources of greenhouse gases that would not have occurred in the absence of the project activity or the CPAs.	☒	Refer to Section 5.0 of the Verification Report for details.	Yes ☒ No ☐
The DOE shall inform the project participants or the coordinating/managing entity, Parties involved and the Board of its certification decision in writing immediately upon completion of the certification process and shall make the verification and certification report publicly available as part of the request for issuance in accordance with the Project cycle procedure.	☒	Refer to the Verification Representation attached to the Verification Report. The Verification Report and all accompanying Annex's are submitted to the VCS upon completion of the verification process to make it publicly available.	Yes ☒ No ☐
The DOE shall request the secretariat to withdraw the request for issuance in accordance with the Project cycle procedure, if the project participants or the coordinating/managing entity requested the DOE to withdraw the request for issuance or if the DOE has revised the conclusion of its verification report based on new insights or information.	☒	Not applicable.	Yes ☒ No ☐
The DOE shall inform the project participants or the coordinating/managing entity, Parties involved and the Board of its certification decision in writing immediately upon completion of the certification process and shall make the verification and certification report publicly available as part of the request for issuance in accordance with the Project cycle procedure.	☒	Refer to the Verification Representation attached to the Verification Report. The Verification Report and all accompanying Annex's are submitted to the VCS upon completion of the verification process to make it publicly available.	Yes ☒ No ☐
Small-Scale Project Activities			

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Verification Requirements		Comments	Peer Reviewer
Determine whether the registered small-scale CDM project activity remains within the limit of the type of small-scale project activities defined in the relevant requirements in the Project standard. If the project activity exceeds the limit of its type in any year of the crediting period, the DOE shall assess whether this was caused by the post-registration changes in accordance with relevant requirements in sections 9 and 10 above. If the DOE determines that there are no such post-registration changes to the project activity and therefore the scale of the project activity does not change, for a Type II or Type III registered small-scale CDM project activity, it shall assess whether the calculated emission reductions during this particular year were capped at the amount calculated with the limit of its type.	☒	Not applicable.	Yes ☒ No ☐
For the bundle of registered small-scale CDM project activities, in accordance with the applicable requirements in the "General principles for bundling", the DOE shall:			
Determine whether the bundle of registered small-scale CDM project activities was implemented and monitored;	☒	Not applicable.	Yes ☒ No ☐
Prepare a verification and certification report(s).	☒	Not applicable.	Yes ☒ No ☐
Afforestation of Reforestation Project Activities			
At the first verification, the DOE, in accordance with paragraph 34(d) of the CDM modalities and procedures for afforestation and reforestation project activities, shall confirm those areas of land for which the control over the registered A/R CDM project activity has been established by the project participants since validation.	☒	Not applicable.	Yes ☒ No ☐
As a part of the first verification and certification report, the DOE shall confirm that the boundary of the registered A/R CDM project activity geographically delineates exclusively the afforestation or reforestation project activity under the control of the project participants.	☒	Not applicable.	Yes ☒ No ☐

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Verification Requirements		Comments	Peer Reviewer
If tCERs were issued based on the previous verification and certification, the DOE shall confirm that the current verification and certification is for the first time in the current commitment period. If ICERs were issued based on the previous verification and certification, the DOE shall confirm that the current verification and certification is within eight years of the date when the previous certification report was submitted until the end of the current crediting period.	☒	Not applicable.	Yes ☒ No ☐
Carbon Dioxide and Storage Project Activities			
In accordance with the section "Verification and certification" of the Project standard, the DOE contracted by the project participants to perform the verification shall:		Not applicable.	
Determine whether monitoring was conducted in accordance with the registered monitoring plan and the provisions for monitoring set out in the section "Monitoring" of the Project standard;	☒	Not applicable.	Yes ☒ No ☐
Determine whether the site development and management plan is being adhered to;	☒	Not applicable.	Yes ☒ No ☐
Determine whether any significant deviations were observed during history matching and whether, in such a case, a recharacterization of the geological storage site, an update of the risk and safety assessment, an update of the environmental and socioeconomic impact assessments, a revision to the project boundary, and a revision to the monitoring plan have been conducted, as necessary, in accordance with the CCS-related provisions set out in the Project standard;	☒	Not applicable.	Yes ☒ No ☐
Determine whether seepage occurred from the geological storage site of the registered CCS CDM project activity during the verification period;	☒	Not applicable.	Yes ☒ No ☐
In the case that such seepage occurred:		Not applicable.	
<i>Determine whether the remedial measures and plans described in the risk and safety assessment were implemented and effective;</i>	☒	Not applicable.	Yes ☒ No ☐

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Verification Requirements		Comments	Peer Reviewer
<i>Determine whether a net reversal of storage occurred as a result of the seepage;</i>	☒	Not applicable.	Yes ☒ No ☐
In the case that a net reversal of storage occurred, quantify the amount of the net reversal of storage that occurred as a result of the seepage;	☒	Not applicable.	Yes ☒ No ☐
<i>Determine whether there have been any unintentional transboundary effects;</i>	☒	Not applicable.	Yes ☒ No ☐
Where applicable, determine whether the geological storage site has been successfully closed.	☒	Not applicable.	Yes ☒ No ☐
The DOE shall check, for each verification period, whether the project participants have carried out history matching and, where necessary, updated the numerical models used to characterize the geological storage site by conducting new simulations using the monitored data and information. The numerical models shall be adjusted in the event of significant deviations between observed and predicted behaviour.	☒	Not applicable.	Yes ☒ No ☐
Where the information prepared in accordance with the section "Monitoring" of the Project standard indicates that the geological storage site no longer meets the requirements set out in the section "Selection and characterization of the geological storage site" of the Project standard, the DOE shall provide a negative opinion on validation and/or verification.	☒	Not applicable.	Yes ☒ No ☐
The initial verification and certification of a registered CCS CDM project activity may be undertaken at a time selected by the project participants. Subsequent verification and certification reports shall be submitted to the Board not later than five years after the end of the previous verification period. Verification and certification shall continue beyond the end of the last crediting period of the registered CCS CDM project activity and shall only cease after the monitoring of the geological storage site has been terminated in accordance with the conditions for the termination of monitoring, as set out in the section "Monitoring" of the Project standard.	☒	Not applicable.	Yes ☒ No ☐

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Verification Requirements		Comments	Peer Reviewer
A verification and certification report submitted for a verification period during the crediting period shall constitute a request to the Board for issuance of CERs equal to the verified reductions in anthropogenic emissions by sources of GHGs that have occurred as a result of the registered CCS CDM project activity.	☒	Not applicable.	Yes ☒ No ☐
A verification and certification report submitted for a verification period after the end of the last crediting period shall not constitute a request for issuance but shall provide, where applicable, information on the amount of any net reversal of storage that occurred during the verification period as a result of seepage from the geological storage site of a registered CCS CDM project activity, in accordance with the Project standard and Project cycle procedure and any decisions of the Board.	☒	Not applicable.	Yes ☒ No ☐
The last verification and certification report, submitted after the monitoring of the geological storage site has been terminated in accordance with the conditions for the termination of monitoring, as set out in the section "Monitoring" of the Project standard, may constitute a request to forward any CERs remaining in the reserve account	☒	Not applicable.	Yes ☒ No ☐
Programme of Activities			
The DOE shall:			

CDM Verification Checklist
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Verification Requirements		Comments	Peer Reviewer
Identify included CDM CPAs that it shall consider for verification in accordance with the method/procedure to be used for verification of the amount of reductions of anthropogenic emissions by sources or removals by sinks of greenhouse gases achieved by the CPAs under the registered CDM PoA and determined in the PoA-DD. Where the PoA has more than one host Party and a host Party's DNA withdraws its approval of the PoA and/or its authorization of project participants, the DOE shall identify only unaffected CPAs in accordance with the "Procedure: Process for dealing with letters from DNAs that withdraw approval/authorization";	☒	Not applicable.	Yes ☒ No ☐
Take into account the possible existence of included CDM CPAs complying with different versions of the registered CDM PoA and the need to account for this in its sampling approach, to ensure that a statistically sound sample of CPAs from each version of the PoA are being verified;	☒	Not applicable.	Yes ☒ No ☐
Make the monitoring report publicly available immediately in accordance with the Project cycle procedure, except when the host Party's DNA withdraws its approval of the registered CDM PoA and/or its authorization of project participants in accordance with the "Procedure: Process for dealing with letters from DNAs that withdraw approval/authorization";	☒	The Verification Report is submitted to the VCS for public availability.	Yes ☒ No ☐
Systematically verify and certify the correct implementation and operation of the record-keeping system.	☒	Refer to Section 2.1 of the Verification Report for details.	Yes ☒ No ☐
The DOE shall include in its verification and certification report a description of how it applied the methods/procedures for the purpose of verification stipulated in the registered PoA-DD. The DOE shall include in its verification and certification report a description/justification of the on-site inspection(s) undertaken.	☒	Refer to Section 2.0 of the Verification Report for details.	Yes ☒ No ☐

**CDM Verification Checklist
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Verification Requirements		Comments	Peer Reviewer
The request for issuance of CERs shall correspond to all CDM CPAs included in the PoA in the case of a single monitoring report covering all CPAs of the PoA for the monitoring period, or to one of the batches of CPAs included in the PoA in the case of multiple monitoring reports for the monitoring period.	☒	Not applicable.	Yes ☒ No ☐
The DOE shall confirm that monitoring periods have been consecutive. Further, the DOE shall confirm that CDM CPAs have been included in requests for issuance in a consecutive manner, that is, when a CPA has been included in a request for issuance for a monitoring period, the DOE shall confirm that a request for issuance for the previous monitoring period that included the particular CPA has been published.	☒	CRA confirmed that this is the sixth consecutive verification period based on the crediting period of the Project Activity.	Yes ☒ No ☐
Notwithstanding paragraph 430 above, if the registered CDM PoA applies any of the methodologies listed in the Project cycle procedure as potentially accruing negative emission reductions in a monitoring period, the DOE shall confirm that the CERs, tCERs or ICERs have been issued for all CDM CPAs included in the PoA for the previous monitoring period.	☒	Not applicable.	Yes ☒ No ☐
A request for issuance shall relate to the CERs verified as per the above.	☒	Not applicable.	Yes ☒ No ☐

Peer Reviewer Final Checks	Comments	Peer Reviewer

Brent Boss



Team Leader Signature

Technical Reviewer Signature

Technical Expert Signature

Gordon Reusing



Technical Review Technical Expert Signature

ANNEX E: VCS VERIFICATION REPRESENTATION

VCS VERIFICATION DEED OF REPRESENTATION

BY

CONESTOGA-ROVERS & ASSOCIATES LIMITED

THIS DEED OF REPRESENTATION is made on June 17, 2015

BY

Conestoga-Rovers & Associates Limited, 651 Colby Drive Waterloo, Ontario, Canada N2V 1C2
(as **VVB**)

THIS DEED WITNESSES as follows:

1. **INTERPRETATION**

1.1 In this Deed:

"Accountholder" means any person holding a VCU account with a VCS Registry;

"AFOLU" means agriculture, forestry and other land use;

"GHG" means greenhouse gas;

"GHG Program" means a formal or organized program, scheme or arrangement for the recognition of activities leading to Reductions, or the crediting or issuance of instruments representing, or acknowledging, Reductions;

"Project" means Dempsey Ridge Wind Project;

"Project Crediting Period" means the time period for which GHG emission reductions or removals generated by the Project are eligible for issuance as VCUs (the rules with respect to the length of such time period and the renewal of the project crediting period are set out in the *VCS Standard*);

"Project Proponent" means an individual or organisation that has overall control and responsibility for a VCS project, or an individual or organisation that together with others, each of which is also a Project Proponent, has overall control or responsibility for a VCS project;

"Reduction" means a reduction or removal of one tonne of CO₂e caused by the activities of a Project during the Project Crediting Period;

"VCSA" means the Verified Carbon Standard Association;

"Validation/Verification Body" or **"VVB"** means an organization approved by the VCSA to act as a validation/verification body in respect of providing validation and/or verification services in accordance with the VCS Rules;

"VCS Program" means the GHG Program operated by the VCSA which establishes the rules and requirements that operationalize the VCS to enable the validation of GHG projects and the verification of GHG emission reductions and removals;

"VCS Project Database" means the central project database that records all projects registered and VCUs issued under the VCS, and provides public access to all project and VCU information, including retirement and tracking of the AFOLU pooled buffer account;

"VCS Registry" means a registry operating within the VCS Registry System and holding a current, valid agreement with the VCSA to provide registry services on behalf of the VCSA. VCS Registries interact with the VCS Project Database to issue VCUs, and hold,

transfer (to and from other VCS registries), retire, suspend, cancel and provide custodial services for VCUs on behalf of its Accountholders;

"VCS Registry System" means the system established by the VCS Program, comprised of the VCS Project Database and the VCS Registries, to provide project proponents with the ability to register projects, and issue, transfer, hold and retire VCUs;

"VCS Rules" means the rules and requirements set out in the *VCS Program Guide*, the *VCS Standard* and the other VCS Program documents, as such rules and requirements may be updated from time to time;

"Verification Report" means the written report of verification covering the Reductions generated by the Project from 01-January-2014 to 31-December-2014 and prepared by the VVB in accordance with the VCS Rules; and

"Verified Carbon Unit" (VCU) means a unit issued by, and held in a VCS Registry representing the right of an Accountholder in whose account the unit is recorded, to claim the achievement of a Reduction that has been verified by a validation/verification body in accordance with the VCS Rules. Recordation of a VCU in the account of the Accountholder at a VCS Registry is *prima facie* evidence of that Accountholder's entitlement to that VCU.

- 1.2 Documents referred to in this Deed but not defined shall be the VCS documents, as updated from time to time, to which the relevant term relates.

2. REPRESENTATIONS

- 2.1 I am the Validation/Verification Body in relation to the verification of the Project.

- 2.2 I hereby represent and warrant that:

2.2.1 I have independently verified the Reductions generated by the Project in accordance with the VCS Rules;

2.2.2 In relation to any validation findings and conclusions provided in the Verification Report, I have independently validated the Project's compliance with the VCS Program requirements as set out in the VCS Rules; and

2.2.3 All factual information that I provide in relation to this Deed or have provided in the Verification Report is to the best of my knowledge following due inquiry true, accurate and complete in all material respects and I have not made or provided, and will not make or provide, false, fraudulent or misleading statements or information in relation to this Deed or the Verification Report.

- 2.3 I hereby acknowledge and agree that:

- 2.3.1 The following persons may rely on and enforce the terms of this Deed:

- (a) the VCSA;
- (b) each person who is an Accountholder holding VCUs relating to the Project at any given time;
- (c) each person on whose behalf VCUs relating to the Project were retired by an Accountholder; and
- (d) each of the successors and assigns of those persons listed in clauses 2.3.1(a), 2.3.1(b) or 2.3.1(c);

- 2.3.2 Neither the VCSA, the VCS Registries, nor any of their respective affiliates, directors, employees, agents, licensors and/or contractors, shall be liable with respect to any claims whatsoever arising out of this Deed or erroneous information within the Verification Report submitted to the VCS Registry System for indirect, consequential, special, punitive or exemplary damages, including, without limitation, claims brought against the VCSA or the VCS Registries by Accountholders, other VCS Registries, Project Proponents, other Validation/Verification Bodies or any other third party. This paragraph shall apply regardless of any actual knowledge or foreseeability of such damages;
- 2.3.3 I have read, understood and will abide by the VCS Rules; and
- 2.3.4 The VCSA has an absolute right to amend any of the VCS Rules at any time and shall not bear any liability for loss or damage or liability of any kind sustained by the Validation/Verification Body or any other party involved in the Project in any way under the VCS Program as a consequence of such amendment.

3. GOVERNING LAW AND JURISDICTION

This Deed is governed by and interpreted in accordance with English law, and the English courts shall have exclusive jurisdiction to settle any dispute arising from or connected with this Deed including a dispute regarding the existence, validity or termination of this Deed or the consequences of its nullity.

4. SOVEREIGN IMMUNITY

To the extent that the Validation/Verification Body enjoys any right of immunity from set-off, suit, execution, attachment or other legal process with respect to its assets or its obligations under this Deed, the Validation/Verification Body waives all such rights to the fullest extent permitted by law.

5. COUNTERPARTS

This Deed may be executed in any number of counterparts, each of which when executed and delivered is an original and all of which together evidence the same deed.

6. DELIVERY

This Deed is delivered on the date written at the start of the Deed.

EXECUTED by CONESTOGA-ROVERS & ASSOCIATES LIMITED as a deed



Gordon Reusing, Principal

Signature of director

Name of director

Signature of director/secretary

Name of director/secretary