



VERIFICATION REPORT FOR UNIVERSITY OF WISCONSIN MILWAUKEE CAMPUS WIDE CLEAN ENERGY & ENERGY EFFICIENCY PROJECT



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Summary:

The University of Wisconsin-Milwaukee Campus-Wide Clean Energy & Energy Efficiency Project (Project) quantifies emission reductions campus-wide in scope 1 stationary combustion emissions. The emission reductions are driven by the University of Wisconsin-Milwaukee's (UWM) program Energy Matters - Comprehensive Energy Efficiency and Awareness at the University of Wisconsin-Milwaukee, and the Project includes multiple energy efficiency and clean energy measures such as behavior change campaign/communications, lighting retrofits, on-site renewables, building system retro-commissioning and upgrades, weatherization improvements, LEED certification/green buildings, and innovative strategies. The project activities result in the reduction of greenhouse gases (GHG) including carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) with CO₂ making up most of the emissions.

Second Nature contracted with Ruby Canyon Environmental, Inc. (RCE) to perform the verification of emission reductions during this monitoring period from 1 July 2017 to 30 June 2020. Second Nature manages the reporting platform for the Presidents' Climate Leadership Commitments (previously known as the American College & University Presidents' Climate Commitment or ACUPCC), assists schools in compiling data and calculating emission reductions, and provides support during the verification process, as necessary. UWM provided all data and supporting documentation to RCE.

The purpose of the verification is to ensure that the Project Proponent implemented the project activity according to the monitoring plan, that the emission reduction assertion submitted by Second Nature and UWM is materially correct and free of errors and omissions, and that the Project meets all criteria requirements. Specifically, RCE assessed the Project against the Approved VCS Methodology VM0025 Campus Clean Energy and Energy Efficiency version 1.0 and the Campus Clean Energy and Energy Efficiency Module VMD0038 version 1.0. RCE assessed the Project Monitoring Report, including the Project's monitoring plan, based on the above criteria documents as well as relevant VCS criteria and guidance documents.

During the verification process, RCE completed a desk review of the monitoring report and supporting documents to confirm that Project Proponents implemented the project activity as stated in the validated VCS Project Description. This included a review of data and information control systems and interviews with key personnel. During the verification, RCE issued Corrective Action Requests (3, 2 of which were non-material), Additional Documentation Requests (4), and Clarification Requests (2) which are described in Appendix A. Second Nature and UWM provided adequate responses to all requests.

RCE concludes, to a reasonable level of assurance, that the Project's GHG assertion of 3,518 metric tonnes of CO₂ equivalent emissions for the period of 1 July 2017 to 30 June 2020 is fairly stated.

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1 INTRODUCTION

1.1 Objective

The objective of the verification is to ensure that the GHG emission assertion made by Second Nature and UWM is materially correct and that the data provided are accurate, complete, and transparent. Additionally, RCE ensured that the Project is in conformance with the criteria as stated in Section 1.2.

1.2 Scope and Criteria

The scope of the Project includes the boundary of the Project which includes all the main campus of UWM and all facilities as reported in UWM's GHG emissions inventory. The GHGs included in the scope of the Project are CO₂, CH₄, and N₂O.

RCE conducted the verification based upon the following criteria:

- Verified Carbon Standard Version 4.0 (19 September 2019);
- VCS Program Guide Version 4.0 (19 September 2019);
- Validation and Verification Manual Version 3.2 (October 19, 2016);
- Approved VCS Methodology VM0025 Campus Clean Energy and Energy Efficiency version 1.0 (12 February 2014);
- Approved VCS Methodology Module VMD0038 Campus Clean Energy and Energy Efficiency: Campus-Wide Module version 1.0 (12 February 2014);
- Validated VCS Project Description, dated 24 July 2017;
- ISO 14064-3:2006 Greenhouse gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions.

Additionally, RCE reviewed the Project's monitoring period-specific Monitoring Report Version 2 dated 21 October 2020, including the monitoring plan, during verification activities.

1.3 Level of Assurance

RCE conducted the verification to a reasonable level of assurance.

The VCS Standard defines materiality as errors, omissions, or discrepancies resulting in misstatement of greater than five percent of the Project's GHG assertion. Additionally, RCE considered qualitative non-conformances with criteria requirements as material during the verification process.

1.4 Summary Description of the Project

The Project is a campus-wide effort that includes multiple energy efficiency and clean energy measures to reduce scope 1 stationary combustion emissions. It has been carried out using a VCS methodology, which provides procedures to quantify reductions achieved by colleges and universities in the United States. The Project specifically applies the campus-wide module under which campuses must meet the relevant additionality performance benchmark. Emission reductions are quantified based on data from third-party GHG reporting programs—such as the Presidents’ Climate Leadership Commitments (previously known as the American College and University Presidents Climate Commitment (ACUPCC)) or the Sustainability Tracking, Assessment & Rating System (STARS)—for each year relative to a baseline period. The emission reductions are driven by project activities such as behavior change campaign/communications, lighting retrofits, on-site renewables, building system retro-commissioning and upgrades, weatherization improvements, LEED certification/green buildings, and innovative strategies. The project activities result in the reduction of GHGs including carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) with CO₂ making up most of the emissions reductions.

2 VERIFICATION PROCESS

2.1 Method and Criteria

The verification process involved the following independent and objective activities:

- Select a Verification Team;
- Perform a Conflict of Interest Review;
- Conduct a kickoff meeting with Second Nature and UWM;
- Review the validated Project Description;
- Review the Validation Report;
- Review the current Monitoring Report Version 2 dated 21 October 2020;
- Develop a verification plan and risk-based sampling plan;
- Review the Project information control systems and quality control procedures;
- Review the Project’s emission reduction calculations;
- Issue corrective action requests, additional documentation requests, and clarification requests, as necessary;
- Issue a verification report and verification representation; and
- Conduct an exit meeting with Second Nature and UWM.

2.2 Document Review

RCE selected the verification team according to its GHG Verification Policies & Procedures to ensure team members are qualified to perform verification activities pertaining to the Project.

The verification team consisted of the following individuals:

Lead Verifier: Nina Pinette

Internal Reviewer: Jessica Stavole-Carter

Prior to verification activities, RCE performed a Conflict of Interest Assessment to determine whether any potential conflicts exist with the project developer. No issues were discovered that would affect the impartiality or independence of the verification team.

RCE held a kickoff call with Second Nature and UWM on 27 February 2020. The purpose of the kickoff call was to introduce the Second Nature and UWM personnel and the RCE verification team, review verification objectives and process, review VCS requirements, and to confirm the verification schedule.

RCE developed a verification plan and sampling plan that were used throughout the verification of this monitoring period. RCE created the plans after reviewing the Project Monitoring Report, validated Project Description, the VCS Standard (Version 4.0), and the methodology and methodology module. RCE performed a risk assessment based upon the criteria listed above and evidence provided to RCE by Second Nature and UWM for the current monitoring period.

RCE used the verification plan throughout the verification as a basis for assessing the completeness, consistency, accuracy, and transparency of the Project's GHG emission reductions. During the verification of the Project's previous monitoring period, 1 July 2016 to 30 June 2017, RCE conducted a conference call with Second Nature and UWM in place of a site visit to the UWM campus on 7 March 2018 as described in Section 2.4.

2.3 Interviews

RCE held discussions with the following personnel during the verification or during the conference for the verification of the previous monitoring period in place of the site visit:

- Kate Nelson, Chief Sustainability Officer, UWM: Kate oversees the development of UWM's GHG inventory and emission reduction calculations.
- John Gardner, Office of Sustainability Program and Policy Analyst, UWM: John works with utility accounting representatives and facility contacts to aggregate data for UWM's GHG inventory and emission reduction calculations.
- Ruby Woodside, Innovative Services Manager, Second Nature: Ruby works for the organization managing the Presidents' Climate Leadership Commitments (previously known as ACUPCC) reporting platform and provides technical assistance to UWM during the emissions reporting and offset project development and reporting processes.

2.4 Site Inspections

During RCE's first verification for the Project, the verification of the monitoring period 1 July 2016 to 30 June 2017, RCE determined that a full physical inspection of the campus was not required to achieve a reasonable level of assurance that the emission reductions reported for the monitoring period were materially correct; a conference call would provide sufficient information for the verification. As a result, RCE conducted a Project assessment via conference call. The call was attended by key UWM personnel, Kate Nelson and John Gardner, as well as Ruby Woodside from Second Nature. The project personnel provided an overview of the Project including project data, supporting documentation, emission reduction calculations, and the GHG inventory. Interviews also included detailed reviews of inputs to the Chevrolet-developed Microsoft Excel calculator as well as the functionality of the calculator. UWM described in detail its emissions inventory development and the source data used in the process. At that time, RCE also confirmed that there had been no changes to project activities since validation, and that UWM demonstrated emission reductions against the baseline period during the monitoring period.

Because there were no changes to the Project during the current monitoring period under verification, RCE determined that no additional inspection of the campus and Project was required to achieve a reasonable level of assurance.

2.5 Resolution of Findings

During the verification process, RCE issued one material corrective action request (CAR), two non-material CARs, four additional documentation requests (ADRs), and two clarification requests (CRs). RCE documented these requests in the List of Findings. Second Nature and UWM sufficiently addressed all material requests as documented in Appendix A.

2.5.1 Forward Action Requests

There were no forward action requests during the verification of the previous monitoring period nor during the verification of this monitoring period.

2.6 Eligibility for Validation Activities

RCE did not perform validation activities as part of the verification process.

3 VALIDATION FINDINGS

No validation activities took place during the verification of this monitoring period.

3.1 Participation under Other GHG Programs

The Project does not participate in any other GHG offset programs.

3.2 Methodology Deviations

There are no methodology deviations for the Project during this monitoring period or any previous monitoring periods.

3.3 Project Description Deviations

Second Nature and UWM identified and appropriately justified one project description deviation in the Monitoring Report. RCE approved this project description deviation for the Project during this monitoring period. The same deviation was identified and approved by RCE during the previous monitoring period.

The validated Project Description states that the Project applied energy efficiency technologies that require project emissions adjustments and that Test C would be applied for project year 1 and Test D would be applied for years 2 to 10. Under Test C, project emission adjustments are zero. The project proponent projected that Test C would not be passed after the first year; however, Test C was passed for year 2, the previous monitoring period, and year 3, the first 12 months of the current monitoring period, and therefore project emission adjustments for that period are zero. Second Nature and UWM appropriately identified this as a project description deviation in the Monitoring Report. Per the methodology, project proponents may estimate the project emissions adjustments using any of the adjustment tests.

RCE approved this deviation because it does not impact the applicability of the methodology, additionality, or appropriateness of the baseline scenario, and the Project remains in compliance with VCS rules.

3.4 Grouped Project

N/A, this is not a grouped project.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The Project start date is 1 July 2015, as stated in the validated Project Description. The crediting period is for ten years, beginning on 1 July 2015 and ending on 30 June 2025. RCE found that the Project was implemented in conformance with the validated Project Description except for the noted deviation. RCE verified that there were no previously validated methodology deviations and confirmed that the Project continues to meet the requirements of the VCS Standard Version 4.0.

RCE confirmed that there were no changes to the project proponents for this monitoring period. The Project Proponent—The Board of Regents of the University of Wisconsin System, for the University of Wisconsin Milwaukee —is identified in the Monitoring Report. Second Nature is involved as the manager of the Presidents' Climate Leadership Commitments (previously known as ACUPCC) platform and to provide technical assistance. Project ownership was assessed during the validation and the Project Proponent continues to hold the rights to the equipment and project activities that generate GHG emission reductions. Additionally, UWM has not sought or received any other form of environmental credit.

The Project does not rely on any internal monitoring or metering equipment to collect data required for emission reduction calculations. Data sources include utility data for natural gas, purchased electricity, and purchased steam.

4.2 Safeguards

4.2.1 No Net Harm

No negative environmental or socio-economic impacts were identified by the project proponent.

4.2.2 Local Stakeholder Consultation

There are no records of ongoing communications with local stakeholders during this monitoring period. As stated in the validated Project Description and Monitoring Report for this monitoring period, stakeholder comments were incorporated into the development of the performance methodology.

4.3 AFOLU-Specific Safeguards

This Project is not an AFOLU project.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

Second Nature and UWM calculated the Project's emission reductions in accordance with the equations in VCS Methodology Module VMD0038 and the validated Project Description. Emission reductions were calculated using the Chevrolet-developed Microsoft Excel calculator. RCE reviewed this calculator and the inputs for this monitoring period to ensure the accuracy of the inputs. RCE reviewed a sample of selections of the Project's raw data sets to ensure the accuracy of the inputs and to ensure that there were no transcription errors.

The primary Project data includes the campus' annual GHG emissions from scope 1 stationary combustion and scope 2 purchased electricity. Purchased steam data is also used to assess potential increases in scope 2 purchased steam emissions for project emission adjustments, if necessary. RCE reviewed samples of natural gas invoices since natural gas accounts for all the campus' stationary combustion emissions and reviewed samples of monthly purchased electricity via screenshots of the electric provider's online account information for UWM and samples of monthly invoices.

RCE also reviewed UWM's assessment for project emission adjustments. As discussed above in Section 3.3, UWM identified a project description deviation since adjustment Test C was used instead of adjustment Test D for year 3 as stated in the Project Description. Test D was used for years 4 and 5. Potential increases in scope 2 purchased steam emissions are evaluated by assessing whether any of the activities undertaken to reduce stationary combustion emissions resulted in a net increase in scope 2 purchased steam emissions. RCE reviewed the purchased steam summary against the validated baseline purchased steam quantities and confirmed that the increase in emissions is below the 5% of total stationary combustion emissions threshold.

Any requests for additional documents and data, as documented in RCE's List of Findings (Appendix A) were addressed by Second Nature and UWM.

RCE calculated the emission reductions for the monitoring period using the Chevrolet-developed Microsoft Excel calculator and found the baseline emission, project emission, and GHG emission reduction calculations to be in conformance with the methodology VM0025, the methodology module VMD0038, and the validated Project Description and to be free of material misstatement. Emission reductions for year 4, 1 July 2018 to 30 June 2019, were 0 because during that year the campus did not meet the stationary combustion additionality benchmark per equation 9.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

Second Nature and UWM provided sufficient documentation for the emission reduction calculations as well as the Project's information control systems, data management processes, and data quality assurance procedures. RCE reviewed the Project's Monitoring Report, GHG inventory as submitted to SIMAP, the carbon accounting platform for campus inventories (previously ACUPCC), supporting utility data for the GHG inventory, and emission reduction calculations as calculated in the Chevrolet-developed Microsoft Excel emission reduction calculator. RCE verified that the Project Proponent ensures that project documents and records are secure and retrievable for at least two years after the crediting period.

RCE found the information provided to be transparently documented and in accordance with requirements of the methodology and the validated Project Description

4.6 Non-Permanence Risk Analysis

There is no non-permanence risk associated with the project.

5 VERIFICATION CONCLUSION

RCE conducted a risk-based verification of the University of Wisconsin Milwaukee Campus Wide Clean Energy & Energy Efficiency Project including a strategic review and analysis of the Project data, documentation, and emission reduction calculations. RCE concludes to a reasonable level of assurance that the GHG assertion is free of material misstatement. The emission reductions for the monitoring period 1 July 2017 to 30 June 2020 can be considered in conformance with the following criteria:

- Verified Carbon Standard Version 4.0, 19 September 2019,
- VCS-approved methodology VM0025: Campus Clean Energy and Energy Efficiency, Version 1.0, 12 February 2014,
- VCS Approved Methodology Module VMD0038: Campus Clean Energy and Energy Efficiency: Campus-Wide Module, Version 1.0, 12 February 2014, and
- Validated VCS Project Description, dated 24 July 2017
- ISO 14064-3:2006 Greenhouse gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions

Verification period: From 1 July 2017 to 30 June 2020

Verified GHG emission reductions and removals in the above verification period, by project year:

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)
Project Year 3: 1 July 2017 to 30 June 2018	30,350	28,440	0	1,910
Project Year 4: 1 July 2018 to 30 June 2019	29,955	29,302	0	0
Project Year 5: 1 July 2019 to 30 June 2020	29,566	27,779	0	1,608
Total	89,871	85,521	0	3,518

Verified GHG emission reductions and removals in the above verification period, by calendar year:

Year	Net GHG emission reductions or removals (tCO ₂ e)
2017	804
2018	1,106
2019	719
2020	889
Total	3,518

Lead Verifier Signature



Nina Pinette

Internal Reviewer Signature



Jessica Stavole-Carter

APPENDIX A: VERIFICATION FINDINGS

Corrective Action Requests (CARs), Additional Documentation Requests (ADRs), and Clarification Requests (CRs)		
ID #	Action Item	Resolution
CAR 1, material	Update the Monitoring Report, Section 3.2 Deviations to acknowledge that Test C was used for FY2018 which is a project description deviation. Note that the Monitoring Report template instructions also say “Describe and report on any project description deviations applied in previous monitoring reports.”, and thus the deviation from the previous monitoring period (for FY 2017) should also be included.	September 25, 2020: UWM updated the Monitoring Report to acknowledge that Test C was used for FY 2017 and FY 2018. The monitoring report needs a few other minor edits: In Section 5.4, the “Sq ft adjustment factor” column in the table is inconsistent with the values in the calculator (1 for all years). October 21, 2020: UWM updated the Monitoring Report to appropriately reflect the adjustment factor.
CAR 1, non-material	The campus square footage for FY 2018 and FY 2019 (7,895,881 sq ft) and FY 2020 (7,926,268 sq ft) have small errors. 9,990 sq. ft. were removed for the Cozzens Center in Project Year 3, but the actual square footage is 9,900 sq. ft. This does not affect the emission reduction calculations. The values appear in the emission reduction calculator and the Monitoring Report Section 3.1.	October 21, 2020: UWM acknowledged this non-material error and will correct in future reports.
CAR 2, non-material	The Methodology does not allow for application of RECs purchased from off-site renewable installations to decrease project emissions in the quantification of emission reductions. UWM includes RECs in the calculation of its reported scope 2 electricity emissions (with a 0 t/MWh emission factor applied to the quantity of purchased RECs); however, reported scope 2 electricity emissions do not affect the calculation of emission reductions because calculations only consider scope 2 emissions from purchased steam and not from purchased electricity.	Verifier calculations used scope 2 electricity emissions without RECs in the calculation of project emission reductions for this monitoring period and there is no effect on emission reductions since the project does not seek reductions in emissions from scope 2 electricity.
ADR 1	Provide explanation and evidence for the change in campus square footage from 2017 to 2018 (7,905,871 to 7,895,881 sq. ft.) and 2019 to 2020 (7,895,881 to 7,926,268 sq. ft.)	September 25, 2020: UWM explained where changes are recorded and where the square footage is documented (in previously provide files).

		Note that 9,990 sq. ft. were removed for the Cozzens Center in Project Year 3, but the actual square footage is 9,900 sq. ft. This does not affect the emission reduction calculations.
ADR 2	Provide additional monthly electric data for the Main Campus electric account (e.g. like <i>Snapshot of We Energies Main Electric Account Information.jpg</i>) for 12 months of 2018.	September 25, 2020: UWM provided a snapshot of We Energies main electric account that includes 2018.
ADR 3	Provide additional natural gas invoices for the Main Campus gas (account 2625-118-847) for consumption in the following months: 12/2017, 1/2018, 2/2018, 3/2018, 11/2019, 12/2019, 1/2020, 2/2020	September 25, 2020: UWM provided the requested Constellation New Energy invoices or the bills for local transportation charges (both clearly indicate the amount of natural gas for each month).
ADR 4	Provide evidence of RECs for FY 2018 (9,286 MWh) and FY 2019 (5,734 MWh) including that they were generated from on-site renewable electricity generation.	October 21, 2020: UWM explained that Renewable Energy Attributes are centralized purchases from the State of Wisconsin Department of Administration and includes purchases from several contracts across the state. VN0025 states that “where RECs from off-site renewable installations are purchased by the campus, the lower GHG emissions or the respective grid emission factors associated with the RECs cannot be used to decrease project emissions in the quantification of emission reductions”; however, the Scope 2 electricity emissions do not affect the project’s emission reductions as the project calculations only consider increases in scope 2 emissions from purchased steam and not from purchased electricity. This is listed above as a non-material finding.
CR 1	Explain why the Scope 2 electricity emissions in the Calculator are inconsistent with the SIMAP exports for 2018 and 2019.	September 25, 2020: UWM explained this was due to a data entry error and it updated the calculations.
CR 2	Justify the use of a different enthalpy of steam (1193 for the previous monitoring period and 857 for this monitoring period) to convert steam from lbs to MMBtu for use in the emissions calculations. Is this value from the steam provider, We Energies?	October 21, 2020: UWM explained “Different enthalpy of steam was used because previous enthalpy was incorrect (erroneously used saturated vapor value and have corrected that in this report). Steam is received at 150 psi from our provider, We Energies.” Changing the enthalpy has no impact on the reported emission reductions since the project does not seek emission reductions from scope 2 electricity.

