

Validation Report for the Capricorn Ridge 4 Wind Farm Project Coke and Sterling Counties, Texas

Voluntary Carbon Standard 2007.1

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Validation Report for Capricorn Ridge 4 Wind Farm Project	Jay Wintergreen
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NextEra Energy Resources	Capricorn Ridge 4 Wind Farm Project
Summary:	
<p>The Capricorn Ridge 4 Wind Farm Project consists of 75 wind turbines that supply zero-emissions electricity to the grid, displacing fossil fuel based generation. The validation process consists of the independent third-party assessment of the project design and emission reduction assertion against the criteria stated in the Voluntary Carbon Standard 2007.1 and approved CDM Methodology <i>Consolidated methodology for grid-connected electricity generation from renewable sources - Version 9</i>, and all methodological tools referenced therein.</p> <p>During the validation process, First Environment issued several clarification and corrective action requests – all of which were addressed sufficiently by NextEra Energy Resources. In summary, First Environment is reasonably assured that the Capricorn Ridge 4 Wind Farm Project in Sterling City, Texas, USA, meets all relevant VCS 2007.1 requirements and correctly applies the CDM Methodology ACM0002, with minor deviations that were approved during the validation process.</p>	
Work carried out by:	Number of pages:
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1. Introduction

This report is provided to NextEra Energy Resources (NextEra), a subsidiary of FPL Group, as a deliverable of the project validation process for the Capricorn Ridge 4 Wind Farm Project located in Coke County and Sterling County, Texas ("the Project") under the Voluntary Carbon Standard 2007.1 ("VCS"). This report provides a description of steps involved in conducting the validation and findings of the validation performed on the basis of the VCS 2007.1, as well as criteria given to provide for consistent project operations, monitoring, and reporting. This validation report summarizes the findings of the validation.

As outlined in the Project Design Document (VCS PD), the VCS methodology applied to the project activity was CDM Methodology ACM0002: *Consolidated methodology for grid-connected electricity generation from renewable sources - Version 9*. The Audit Team was provided the VCS PD in June 2009. Based on this documentation, a document review and desktop audit took place, which resulted in Corrective Action and Clarification Requests (discussed later in this report) and revisions to the VCS PD. The final revision, dated May 19, 2010, serves as the basis of the final conclusions presented herewith.

1.1 Objective

The purpose of a validation is to have an independent third party assess the project design. In particular, the project's baseline, monitoring plan, and the project's compliance with the VCS 2007.1 are validated. This is to ensure that the VCS PD, as documented, is sound and reasonable and meets the identified criteria. Validation objectives also include an assessment of the likelihood that the project will achieve the emission reductions asserted by NextEra. Validation is a requirement for all VCS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of emission reductions.

1.2 Scope and Criteria

The validation scope is defined as an independent and objective review of the VCS PD. The VCS PD is reviewed against the criteria stated in the VCS 2007.1 and the approved CDM methodology ACM0002, Version 9 and all methodological tools referenced therein, including:

- "Tool for the demonstration and assessment of additionality", Version 5.2; and
- "Tool to calculate the emission factor for an electricity system," Version 1.1.

The Audit Team employed a risk-based approach focusing on the identification of significant risks for project implementation and the generation of emission reductions.

1.3 VCS Project Description

The Project, located near Sterling City, Coke County, Texas (project coordinates 31.900878°N, -100.817413°W), is the second phase of the Capricorn Ridge Wind Farm and became operational on May 20, 2008. The Project is a new addition that is metered separately from the existing phases of the wind farm. The Project has 75 GE 1.5 MW wind turbines with a capacity of 112.5 MW. The towers have a rated wind speed of 12 m/s, three rotor blades, a rotor diameter of 77 meters, sweep area of 4,657m², and a rotor speed of 10.1-20.4 rpm. The towers also come equipped with a control system that is a programmable logic controller and have a remote control and monitoring system. The objective of the project is to increase the amount of wind-generated electricity that is supplied to the Lower Colorado River Authority (LCRA) substation in Coke County, Texas, a

part of the Electricity Reliability Council of Texas (ERCOT) grid. The Project will produce renewable energy displacing traditional fossil-fueled energy sources, thereby reducing greenhouse gas emissions.

1.4 Level of assurance

First Environment, Inc. (First Environment) and NextEra have agreed that a reasonable level of assurance will be applied for the validation.

2. Methodology

The following validation process was used:

- conflict of interest review;
- selection of validation team;
- kickoff conference call with NextEra;
- development of validation plan;
- desktop review of the project design and the baseline and monitoring methodology and other relevant project documentation;
- site audit;
- follow-up interaction with NextEra for corrective action and supplemental information as needed; and
- report development and issuance final validation statement.

The validation process was utilized to evaluate whether the Project's approach, as outlined in the project design document, is consistent with VCS and the CDM methodology identified above.

Conflict of Interest Review

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

Audit Team

First Environment's audit team consisted of the following individuals who were selected based on their validation experience, as well as familiarity with renewable energy operations.

Michael Carim – Lead Auditor
Alicia Chin – Auditor
Ross MacWhinney – Auditor
Greg Kozak – Auditor
Eric Ripley – Auditor
Jason Irwin – Technical Expert for Additionality Assessment
Jay Wintergreen – Independent Internal Reviewer

Audit Kick-off

The validation process was initiated with a kickoff conference call on June 4, 2009 between First Environment and the primary NextEra contacts, Tina Reine and John Mantyh. The meeting focused on confirming the scope and schedule and the information required for the validation.

Development of the Validation Plan

Based on the information discussed during the kickoff conference call, the team formally documented its validation plan.

Site Audit

Michael Carim visited the project location in September 2009 to assess project monitoring systems and interview site personnel responsible for various aspects of the project.

Michael Carim and Jason Irwin visited NextEra's corporate offices in April 2010 to assess the project's additionality through a review of evidence and documentation provided in support of the financial analysis presented in the VCS PD.

Corrective Actions and Supplemental Information

The team requested clarification and supplemental information as well as corrective actions during the validation. The corrective action and clarification requests and the responses provided are summarized in Section 3 of this report.

Validation Reporting

Validation reporting, represented by this report for NextEra, documents the validation process and identifies its findings and results.

2.1 Review of Document

First Environment conducted the validation using the Voluntary Carbon Standard 2007.1 and the CDM methodology ACM0002: Consolidated methodology for grid-connected electricity generation from renewable sources - Version 9 as the criteria. Additionality, eligibility requirements, baseline scenario(s), project emissions, monitoring plan, and other pertinent criteria were assessed to evaluate the Project's approach as outlined in the VCS PD against VCS and the approved CDM methodology referenced above. Discrepancies between the VCS PD and the validation criteria were considered material and identified for corrective action. Any deviations from the validation criteria required appropriate justification.

2.2 Follow-up Interviews

Through the course of validation activities, and during site visits on September 22, 2009 and April 29, 2010, First Environment interviewed the following project personnel to inform the validation assessment:

- Tina Reine – Carbon Markets Manager
- John Mantyh – Regional Director
- Brian Harris – Business Manager
- Michael Prater – Plant Leader

- Bart Mason – Wind Technician
- Greg Huffman – Wind Technician
- Karan Shah – Financial Analyst, Project Valuation – Wind
- Dean Gosselin – Vice President, Development

2.3 Resolution of Any Material Discrepancy

The audit team requested clarification and supplemental information as well as corrective actions during the validation. The corrective action and clarification requests and responses provided are summarized in Section 3 of this report.

3. Validation Findings

3.1 Project Design

The Project has adopted the approved CDM methodology ACM0002, *Consolidated methodology for grid-connected electricity generation from renewable sources - Version 9*, which is applicable to the project activity because it falls within the scope of the approved methodology. Specifically, the project activity involves the use of wind turbines to generate electricity supplied to the grid which is within the scope of ACM0002.

The project qualifies in all aspects to be considered as a VCS project. The table below lists the VCS 2007.1 eligibility requirements and identifies how the project meets them. The forecasted emission reductions from this project are 2,127,350 metric tonnes CO₂e during the first crediting period, which started January 1, 2010 and is for a period of 10 years.

The project will not participate in any other emissions trading program for the duration of the crediting period. The project is eligible for and did generate Renewable Energy Certificates (RECs) prior to the initiation of the VCS crediting period. The validation process included a request for a procedure to ensure that the project does not generate RECs during the VCS crediting period. NextEra described a process to First Environment to be implemented during the project's verification that will ensure that the project only generates one form of environmental credit.

VCS 2007.1 Eligibility Conformance Checklist

Requirement	Project Conformance	Comments/Findings
Project began after January 1, 2002	Yes	NextEra provided, for each individual turbine, a Form of Commissioning Certificate documenting that the Commissioning of the Turbine was completed and the Turbine was released for commercial power production. The latest of these Forms was issued on May 20, 2008 and the earliest was issued on March 5, 2008.
Eligible emissions reductions are those after March 28, 2006	Yes	Project did not begin until May 20, 2008.
A VCS VCS PD is developed in accordance with the requirements of the protocol and ISO 14064-2:2006 clause 5.2	Yes	Satisfactory VCS PD was provided to First Environment.

Requirement	Project Conformance	Comments/Findings
Clear demonstration of emission reduction credit ownership and proof of title	Yes	NextEra Energy Resources also provided a copy of its approved registration as a Power Generating Company from the Public Utility Commission of Texas, demonstrating ownership over environmental attributes generated by the project.
VCS program approved methodology is applied	Yes	The VCS program approved methodology applied to the project activity is ACM0002.

Corrective Actions and Requests for Clarification

First Environment identified several differences between the Project's approach, as outlined in the VCS PD and VCS, and the underlying CDM methodology that would constitute nonconformities or require approval from VCS as a deviation. Corrective action requests were issued accordingly. Additionally, First Environment requests several clarifications and supporting documentation in relation to items in the VCS PD.

Through communications with the audit team, NextEra was able to resolve all corrective action and clarification requests made by First Environment during the validation process.

The following tables summarize the corrective action and clarifications requested as well as the client's response.

Corrective Action Request	Participant Response	Validation Conclusion
VCS explains that a project must adhere to the additionality specifications of the chosen approved methodology being used by the project. Please use the "Tool for the demonstration and assessment of additionality" to demonstrate project additionality in Section 2.5 on page 7 of the VCS PD and provide justification or documentation, as appropriate, for information used in the analysis.	NextEra submitted a revised VCS PD that correctly applied the CDM <i>"Tool for the demonstration and assessment of additionality,"</i> Version 5.2.	Response is acceptable.
Please justify the 35% expected net capacity factor cited in Section 1.3 on page 1 of the VCS PD.	The expected net capacity factor of approximately 35% was developed by NextEra Energy Resources based on 31 months of historical wind speed data at the site, then normalized with two 31-years' long-term NOAA stations in the vicinity of the project. During the validation process, First Environment reviewed historical wind speed data from the site used to justify the selection of the capacity factor for the project.	Response is acceptable.
Please provide further justification as to how the Green-e method is an appropriate substitution method for the "Tool to calculate the emission factor for an electricity system" in Section 2.3 on page 5 of the VCS PD.	NextEra submitted a revised VCS PD that applied the CDM <i>"Tool to calculate the emission factor for an electricity system,"</i> Version 1.1, so the corrective action request is moot.	Response is acceptable.

Corrective Action Request	Participant Response	Validation Conclusion
Please justify the selection of ERCOT as the project electricity system in the context of the "Tool to determine an emission factor for an electricity system."	NextEra revised its VCS PD to provide appropriate justification for the selection of ERCOT as the project electricity system.	Response is acceptable.
The operating margin emission factor is not calculated using a 3-year generated-weighted average of most recent data available.	NextEra revised its VCS PD to calculate the operating margin emission factor on an ex-post basis during each verification as opposed to the ex-ante approach that requires a 3-year generation-weighted average of most recent data available.	Response is acceptable.
Section 4.2 of the VCS PD does not adequately explain the determination of the operating margin for the electric power system (ERCOT).	<p>The operating margin was calculated according to the "Tool to calculate the emission factor for an electricity system." The specific method chosen was the Simple OM Option A, using one year of ex-post data; the tool calls for using the year in which the project activity displaces the grid electricity. The most recent year of data available from EPA (in the eGRID files is 2005 (2007 eGRID); because this data is 3 years older than the year in which the project is displacing the grid electricity, the data is considered to be y-3, and will be updated annually accordingly. For each year of the crediting period the OM will be recalculated using the most recent year ex-post data available from eGRID.</p> <p>The equation for the simple operating margin (Equation 4) requires data from the specific fuel type consumed in the power plants in the grid. The data in the eGRID files do not have these specific parameters ($FC_{i,m,y}$ and $NCV_{i,y}$); however, there is a column of data [(Column E, Sheet 05, of the attached spreadsheet, CAP4EmissionsCalcs_05.xls), Plant annual heat input in GJ], that is the product of these two parameters. Thus, the actual calculation in the spreadsheet is Column E (plant annual heat input in GJ) times $EF_{CO2,m,y}$.</p>	Response is acceptable.
The VCS PD does not account for emissions associated with purchased electricity consumed within the project boundary.	NextEra submitted a revised VCS PD that accounts for project emissions associated with purchased electricity consumed in a substation, offices, and the operation of the project.	Response is acceptable.
The build margin is not computed according to the CDM "Tool to calculate an emission factor for an electricity system."	NextEra submitted a revised VCS PD that computes the build margin for the project electricity system according to the "Tool to calculate an emission factor for an electricity system."	Response is acceptable.
Please justify the exclusion of the following power plants from the build margin calculation:	NextEra revised its calculation of the build margin to include emissions and generation from the omitted facilities.	Response is acceptable.

Corrective Action Request	Participant Response	Validation Conclusion
<ul style="list-style-type: none"> Forest Creek Wind Farm LLC Sand Bluff LLC Mesquite Wind Power LLC Austin Gas Recovery Skyline Gas Recovery Post Wind Farm LP Snyder Wind Farm Whirlwind Energy Center 		
The build margin and operating margin are not calculated in metric units.	NextEra revised the VCS PD so that the build and operating margins are expressed in terms of metric tonnes of CO ₂ per megawatt-hour.	Response is acceptable.
The VCS PD does not address the requirements of Section 6.2 of VCS 2007.1 protocol.	NextEra revised its VCS PD to identify and assess all emission sources, sinks, and reservoirs as either affected, controlled, or related to the project activity.	Response is acceptable.

Clarification Request	Participant Response	Validation Conclusion
Please clarify with what local laws and regulations the Project is in conformance as referenced in Section 1.10 on page 3 of the VCS PD.	NextEra revised its VCS PD to clarify that there are no local laws or regulations affecting the project.	Response is acceptable.
Please clarify how NextEra Energy is to retire RECs as referenced in Section 1.13 on page 3 of the VCS PD.	NextEra revised its VCS PD to describe a process	Response is acceptable.
Please clarify how Green-e determines the operating margin and build margin stated in Table 7 in Section 4.2 on page 18 of the VCS PD.	NextEra submitted a revised VCS PD that applied the CDM <i>"Tool to calculate the emission factor for an electricity system"</i> , Version 1.1, so the clarification request is moot.	Response is acceptable.
Please clarify whether the build margin is determined using the ex-ante or ex-post option described in the CDM <i>"Tool to calculate the emission factor for an electricity system."</i>	NextEra submitted a revised VCS PD that clarified that the build margin will be calculated using the ex-ante option.	Response is acceptable.
Please describe the Ancillary Services that the project is unable to provide as referenced in the Barriers Analysis discussion in Section 2.5 of the VCS PD.	The original barriers analysis was removed and replaced with an analysis of investment barriers.	Response is acceptable. See discussion of Additionality Assessment below.
Please clarify why identified alternatives to the project activity do not face obstacles in obtaining Reliability Must Run contracts as referenced in the Barriers Analysis discussion in Section 2.5 of the VCS PD.	The original barriers analysis was removed and replaced with an analysis of investment barriers.	Response is acceptable. See discussion of Additionality Assessment below.

3.2 Baseline

Baseline methodology determination

The baseline scenario was determined by according to the approach described in ACM0002.

Per ACM0002, because the project activity is installation of a new, grid-connected renewable power plant, the baseline scenario is the following:

Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the “Tool to calculate the emission factor for an electricity system.”

The project selected the appropriate baseline in accordance with the requirements of ACM0002.

Assessment and Demonstration of Additionality

In accordance with ACM0002, the additionality is demonstrated by applying the “Tool for the demonstration and assessment of additionality,” Version 5.2.

Step 1: Identification of alternatives to the project activity consistent with current laws and regulations

When applied in the context of ACM0002, the “Tool for the demonstration and assessment of additionality,” Version 5.2 only requires the project proponent to identify that there is at least one credible and feasible alternative that would be more attractive than the proposed project activity.

The VCS PD identified a combined-cycle natural gas fired power plant as the alternative to the project activity implemented without revenues from the sale of VCUs. This alternative is selected based on trends in new power plant construction at time and was determined to be appropriate.

None of the alternatives identified are mandated by any enforced law, statute, or other regulatory framework, nor is the project activity mandated by any applicable law, statute, or other regulatory framework.

Step 2: Investment Analysis

NextEra applied an investment analysis consistent with the requirements of “Tool for the demonstration and assessment of Additionality.”

Sub-step 2a: Determine Appropriate Analysis Method

The project activity and alternatives identified in Step 1 generate revenues beyond the sale of emission reduction credits; therefore, the VCS PD does not apply the Simple Cost Analysis (Option I).

Sub-step 2b: Apply benchmark analysis (Option III)

NextEra has elected to apply the Investment Comparison Analysis (Sub-step 2b Option III) in its demonstration of project additionality in its VCS PD. Specifically, the after-tax, unlevered,

internal rate of return (IRR) is selected as the financial indicator. The specific benchmark IRR selected by NextEra constitutes business confidential information; however, sufficient evidence was provided that allowed for the validation of the selected benchmark for the project.

Validation of the benchmark focused on confirming that the benchmark IRR was appropriate and justified, based on consistent application in NextEra's financial decision making process. Validation of the benchmark was performed through interviews with project development personnel and review of analytic tools used by NextEra to assess the financial viability of potential projects.

The viability of a project is determined by three primary factors:

- Capital expenditure (CAPEX)
- Revenues from power and emissions benefits sold
- Availability of wind resources or net capacity factor (NCF)

Similar projects under consideration in 2006 faced the same CAPEX and expected revenue from the sale of electricity and emission benefits. The NCF, therefore, serves as the key driver of whether a given project would attain the benchmark IRR. NextEra provided a Wind Pricing Matrix from 2006 that allowed First Environment to verify that project feasibility is a function of the NCF of the proposed project. If a project cannot attain the required NCF threshold, it is not advanced for further evaluation.

NextEra was asked to demonstrate on the basis of empirical evidence how a project's NCF correlated to its IRR. The NCF for a potential project is determined through site-specific monitoring and data collection performed over a short time horizon (two to four years) and then normalized over a longer period (20 to 30 years) for the purposes of project evaluation. A review of NCF data for all other wind projects in the same region evaluated by NextEra at the time showed that all had NCFs higher than the Capricorn Ridge 4 project. The corresponding pro forma analyses for the same were also provided and confirmed that all had IRRs higher than Capricorn Ridge 4 and also exceed the internal benchmark established by NextEra. NextEra also provided pro forma analyses of other wind projects since developed in order to demonstrate that all had after-tax, unlevered IRRs above the benchmark. Data was also provided identifying the NCF for projects that were rejected by NextEra. All had NCFs lower than the Capricorn Ridge 4 project. Accordingly, First Environment concluded that the benchmark value for the IRR selected was appropriate.

Sub-step 2c: Calculation and comparison of financial indicators.

A financial analysis demonstrated that the project activity, without earning revenues from the sale of emission reduction credits, does not meet the hurdle rate identified by NextEra and validated in Sub-step 2b.

First Environment reviewed the pro forma financial models for the project activity, with and without revenues received from the sale of the project's environmental attributes. Evidence and documentation was supplied for all inputs into the financial model, and were confirmed in the validation process during a document review conducted at NextEra's corporate offices. Next Era supplied documented evidence sufficient to verify all model inputs and substantiate the IRR achieved by the project with and without revenues from the sale of VCUs. On this basis, First Environment concluded that the project activity has a lower IRR than the benchmark and cannot be considered as financially attractive.

Sub-step 2d: Sensitivity Analysis

A sensitivity analysis is performed as part of the project's financial modelling. NextEra provided justification for a departure from the guidance that in the "Tool for the demonstration and assessment of additionality" that sensitivity analysis should at least cover a range of $\pm 10\%$. Specifically, historical trends in the price of power in the ERCOT region, and expectations that increased supply in the region would depress prices justify the selection of a narrower range of -10% to $+2.5\%$. Additionally, NextEra's expertise wind project development and wind resource forecasting justifies the selection of a $\pm 1\%$ range for the variability in the wind resource.

The sensitivity analysis performed demonstrates that the project still would not achieve the benchmark IRR without revenue from the sale of VCUs. Therefore it is appropriate to conclude that the investment analysis is sufficiently robust to demonstrate that the project is not financially or economically attractive under a range of varying assumptions.

Step 3: Barriers Analysis

NextEra also elected to provide a barriers analysis to supplement the financial analysis described above.

The primary barrier faced by the project is its status as a "merchant power" plant. Merchant plants are those that have not secured a power purchased agreement (PPA) that would guarantee an off-taker, and therefore revenues, for power produced. Because the project was constructed as a merchant power plant that would sell power at market rates without a guaranteed buyer, its financial viability faces significant uncertainty.

First Environment concluded this barrier is both real and significant and that revenues from the sale of the project's environmental attributes help to alleviate the barriers created by the lack of a purchase power agreement.

Step 4: Common practice analysis

The VCS PD identifies the growth of electricity generation from wind resources in west Texas during the time of the project's implementation. Therefore, NextEra must explain how the proposed project activity is distinguished from other similar projects in its region and why this fact does not contradict the claim that the project activity did not represent common practice.

As described above, the project was constructed as a merchant power facility without any guaranteed off-taker for the power generated. Similar activities all had secured PPAs in place that guaranteed revenues on which the Capricorn Ridge 4 project could not necessarily rely, and therefore created a barrier that PPA projects did not face. Evidence from energy research services was provided to confirm the uniqueness of NextEra's merchant power approach in 2005. However, the decision to develop the project as a merchant power facility in and of itself does not satisfy the common practice test in the "Tool for the demonstration and assessment of Additionality" because all projects potentially faced the same investment climate and choices.

NextEra further demonstrated that a PPA-driven development approach was not feasible because of the particular financial circumstances and availability of wind resources to the Project. Potential counterparties for a PPA would enter into a contract only at a significant discount to the forward price curve for energy and emissions benefits. NextEra demonstrated, through a review of the pro forma financial analysis, that the Capricorn Ridge 4 project had the lowest NCF of all similar projects. The pro forma analysis that was reviewed also

included the forward price curve for electricity and emissions benefits that could be achieved in the open market, but not under a PPA. The pricing associated with a PPA was insufficient to initiate project development. In particular, low NCF associated with Capricorn Ridge 4 would not allow the project to generate sufficient returns given the PPA price structure available in the market. Evidence for these claims were supplied and validated during the assessment of the pro forma model in Investment Analysis performed in Step 2 of the “Tool for the demonstration and assessment of Additionality.”

Thus the PPA approach was not a viable project development option in the same way that it was for other projects in the same region. Therefore, First Environment concluded at the time of implementation that the project activity did not represent common practice in the region and that the requirements of Step 4 of the “Tool for the demonstration and assessment of Additionality” are satisfied.

3.3 Monitoring Plan

The project applies the approved monitoring methodology ACM0002. The primary variables measured in order to determine and account for emission reductions are shown below.

Parameter	Method of Estimation	Frequency	Unit
Electricity Supplied to the Grid	Meter	Continuous	Megawatt hours (MWh)
Electricity Consumed by the project activity	Meter	Continuous	Megawatt hours (MWh)
Combined Margin CO ₂ Emission Factor	Calculated	Operating margin is calculated ex-post at the end of each crediting period; Build Margin is calculated ex-ante for the first crediting period	tCO ₂ /MWh

The project includes an extensive monitoring system involving staff training and development/implementation of a monitoring plan to maintain the performance of equipment as well as to ensure the accuracy of measurements and data reported.

The monitoring plan specified within the VCS PD includes all relevant data and parameters required to obtain a reliable result of generated emission reductions and meets the requirements of the ACM0002 Methodology. The details of the monitoring plan are described in Sections 3.2, 3.3 and 3.4 of the VCS PD where there is a complete description of the frequency, responsibility, and authority for recording, monitoring, measurement, and reporting activities. The monitoring plan described in the VCS PD ensures the adequate measurement of emissions occurring from GHG sources through the installation of appropriate equipment and devices required for the final balance of emission reductions generated.

Variances between the methodology’s monitoring requirements and the project’s monitoring plan are discussed below:

Parameter	AM0025 Requirement	Deviation from Requirement	Validation Conclusion
(EF _{grid,CM,y}) Combined Margin CO ₂ Emission Factor	As per the “Tool to calculate the emission factor for an electricity system”	The operating margin is assigned a value of .695 tCO ₂ /MWh, which is equal to the non-baseload emission rate specified US EPA’s eGrid 2007 database for the TRE/ERCOT sub-region.	The methodology applied by eGrid to compute the non-baseload emission rate is consistent with the requirements “Tool to calculate the emission

Parameter	AM0025 Requirement	Deviation from Requirement	Validation Conclusion
			factor for an electricity system” and is based on the best available statistical data for the TRE/ERCOT sub-region. Variance is acceptable.

3.4 Calculation of GHG Emissions

All project emissions and emission reductions were found to be quantified in accordance with the methodology described in ACM0002. The formulae were correctly applied and calculation of GHG emission reductions is done in a transparent manner, incorporating all relevant GHG sources, sinks, and reservoirs.

Project emissions result from the consumption of grid electricity by an electrical substation, offices, and in start up of wind turbines. Project emissions are calculated based on the quantity of electricity purchased and an emission factor for the Project location from grid emissions data from the U.S. EPA’s eGRID2007 Version 1.1 (year 2005 data).

Baseline emissions are calculated based on the quantity of electricity generated by the project and the Combined Margin CO₂ emission factor, as determined from “Tool to calculate the emissions factor for an electricity system, Version 1.1,” with a minor deviation as discussed above. Forecast emission reductions over the length of the crediting period are determined based upon the capacity utilization factor of 35 percent described in the VCS PD.

3.5 Environmental Impact

The project did not trigger any regulatory requirements for an Environmental Impact Assessment.

NextEra opted to perform a Phase I Environmental Site Assessment (ESA) for the project location. First Environment reviewed the ESA during the course of its validation.

NextEra also identified potential impacts on black-capped vireo populations in the area of the project activity. The species is an endangered bird whose habitat intersects the project location. NextEra has implemented a monitoring program to track the project’s effects on the bird’s environment and nesting habits.

3.6 Comments by Stakeholders

Stakeholder consultation has not been conducted for this project activity as it is neither a requirement under VCS 2007.1, nor did the Project activate any federal or state permitting process that required formal stakeholder input or public comment.

4. Validation Conclusion

First Environment has performed a validation of the Project’s approach as outlined in the VCS PD as part of the VCS validation process. First Environment used the CDM Methodology ACM0002, *Consolidated methodology for grid-connected electricity generation from renewable sources - Version 9* as the criteria for the validation. The validation was

performed on the basis of VCS 2007.1 criteria, as well as criteria given to provide for consistent project operations, monitoring, and reporting.

The review of the VCS PD and the satisfaction of corrective action and clarification requests have provided First Environment with sufficient evidence to determine the fulfilment of stated criteria.

In our opinion, the Project's approach, as outlined in the VCS PD, is consistent with the methodology.

The project correctly applies the approved CDM baseline and monitoring methodology, ACM0002, *Consolidated methodology for grid-connected electricity generation from renewable sources - Version 9* with minor deviations that were approved during the validation process. By producing renewable energy and displacing electricity that would otherwise have been generated through the combustion of fossil fuels, the project activity results in reductions of greenhouse gas emissions that are real, measurable, and give long-term benefits to the mitigation of climate change. An analysis of the additionality test demonstrates that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project.

The total emission reductions from the project are estimated to be 2,127,350 metric tonnes of CO₂e over the crediting period. The emission reduction forecast has been checked and is deemed likely that the stated amount is achieved given that the underlying assumptions do not change.

In summary, it is First Environment's opinion that the NextEra Energy Resources Wind Farm Project in Coke and Sterling Counties, Texas, USA, as described in the VCS VCS PD of September 2009, meets all relevant VCS 2007.1 requirements and correctly applies the CDM Methodology ACM0002, with several minor deviations that were approved during the validation process.

The validation of the project is based on the information made available to us and the engagement conditions detailed in this report. First Environment cannot guarantee the accuracy or correctness of this information. Hence, First Environment cannot be held liable by any party for decisions made or not made based on this report or opinion.

5. Validator Signature



Michael M. Carim
Senior Environmental Specialist

6. Independent Reviewer Signature



James T. Wintergreen
Senior Associate