



**Verified Carbon  
Standard**

# **CROW LAKE WIND EMISSIONS REDUCTION PROJECT**



**Blue Delta Energy**

Document Prepared By

Kenneth Nelson

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# 1 PROJECT DETAILS

## 1.1 Summary Description of the Implementation Status of the Project

The Crow Lake Wind project site is located east of Chamberlain, South Dakota. The site contains 108 GE 1.5-megawatt turbines, with the ownership originally divided among PrairieWinds SD 1, Inc. (PWSD1) - a wholly-owned subsidiary of Basin Electric Power Cooperative (BEPC) that owned 100 turbines - South Dakota Wind Partners (SDWP), a South Dakota limited liability company that owned 7 turbines, and one turbine owned by Mitchell Technical Institute (MTI), with the power and environmental attributes purchased by BEPC under Power Purchase Agreements (PPAs) with each of the turbine owners listed above. Subsequent to the Project's Validation, there have been two significant changes to the ownership structure:

1. On July 14<sup>th</sup>, 2017 SDWP sold and assigned their 7 turbines to PWSD1
2. On December 31<sup>st</sup>, 2017, PWSD1 was merged into BEPC and subsequently dissolved

Thus for the Monitoring Period covered in this report (January 1, 2019 thru December 31, 2019), 107 of the 108 turbines at the Crow Lake Project site were owned by BEPC, and the output from MTI's turbine was purchased pursuant to the PPA between MTI and BEPC. The 108 turbines described above have an aggregate nameplate capacity of 162 megawatts (MW). Construction of the project started September 29, 2010. The commercial operation date of this project is February 1, 2011; and it has been in continuous operation to date.

The wind turbines at the Crow Lake project site are interconnected to the Western Area Power Administration (WAPA) – Upper Great Plains East (UGPE) bulk transmission system ("Integrated System" or "IS"), which is located within the Midwest Reliability Organization (MRO) region. Effective October 1, 2015, the owners of the IS elected to join the Southwest Power Pool (SPP), and the system's generation is now subject to SPP's oversight. The turbines on the Crow Lake project site generate emissions reductions by delivering onto the bulk transmission system electricity generated by use of a renewable fuel source (wind).

This project was developed on a voluntary basis, and it was not required to meet any state renewable portfolio requirements. In addition, the monetization of the green attributes from this project was part of the justification of the economics of the project to BEPC as they have more cost-effective alternatives to obtain energy from grid connected resources, absent the value of the green attributes.

The project achieved total net GHG emission reductions of 444,562 tCO<sub>2</sub>e in the Monitoring Period (January 1, 2019 – December 31, 2019).

## 1.2 Sectoral Scope and Project Type

As a grid-connected renewable energy project, the project activity may be principally categorized under Sectoral Scope Number 1: Energy (renewable/non-renewable sources). Crow Lake Wind is a stand-alone project and is not a grouped project.

## 1.3 Project Proponent

<b>Organization name</b>	Basin Electric Power Cooperative
<b>Contact person</b>	Zane Zuther
<b>Title</b>	Planning Analyst
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<b>Organization name</b>	Basin Electric Power Cooperative
<b>Contact person</b>	David Raatz
<b>Title</b>	Senior Vice President of Asset Management, Resource Planning and Rates
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<b>Organization name</b>	Mitchell Technical Institute
<b>Contact person</b>	Greg Von Wald
<b>Title</b>	President
<b>Address</b>	1800 East Spruce Street Mitchell, South Dakota 57301
<b>Telephone</b>	(605) 995-3022
<b>Email</b>	Greg.Vonwald@mitchelltech.edu

## 1.4 Other Entities Involved in the Project

<b>Organization name</b>	Blue Delta Energy, LLC
<b>Role in the Project</b>	Consultant and authorized representative for BEPC
<b>Contact person</b>	Kenneth Nelson
<b>Title</b>	President
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<b>Email</b>	<a href="mailto:knelson@bluedeltaenergy.com">knelson@bluedeltaenergy.com</a>

## 1.5 Project Start Date

The commercial operation date of the project is February 1, 2011.

## 1.6 Project Crediting Period

The project crediting period for the projects started on February 1, 2011, and will conclude January 31, 2021, for a total of 10 years. This verification covers the periods from January 1, 2019 – December 31, 2019.

## 1.7 Project Location

The Crow Lake Wind project is located across the span of Aurora, Jerauld and Brule counties, east of Chamberlain, South Dakota on a 36,000-acre plot of land at grid coordinates:

Latitude: 43.8° N Longitude: -98.8°.



Figure 1 Map of Project location



**Figure 2 Image of Project**

## 1.8 Title and Reference of Methodology

### **Title**

ACM0002 - Consolidated baseline methodology for grid-connected electricity generation from renewable sources

### **Reference**

<http://cdm.unfccc.int/filestorage/V/A/1/VA17EM2PNDJWBTFY34KGRLZ068S9UO/Consolidated%20baseline%20methodology%20for%20grid-connected%20electricity%20generation%20from%20renewable%20sources.pdf?t=NXV8bHVwdzh6fDAPIdA2Htix3vUsiCteOTKR>

### **Version**

Version 12.1.0

### **Tools used**

- Tool for the demonstration and assessment of additionality - version 5.2.1
- Tool to calculate the emission factor for an electricity system - version 2.2.0

## 1.9 Participation under other GHG Programs

The Crow Lake project is not registered under any other GHG Programs or any Environmental Credit program other than those listed in Section 1.10.2.

## 1.10 Other Forms of Credit

### 1.10.1 Emission Trading Programs and Other Binding Limits

The Crow Lake project and its operations/activities are not currently covered under any Emission Trading Programs or subject to any other mechanism that includes GHG allowance trading.

### 1.10.2 Other Forms of Environmental Credit

The Crow Lake project site is currently listed in M-RETS (the Midwest Renewable Energy Tracking System), a third-party registry created to record the generation of renewable energy MWhs and renewable energy credits (RECs). BEPC has a Qualified Reporting Entity (QRE) group that reports the number of MWhs generated each month to M-RETS, which in turn assigns unique serial numbers for each MWh. For the creation of VCUs, the MWhs for which VCUs are being claimed will be retired in M-RETS and the reason for doing this (VCU creation) will be documented in M-RETS. The retirement of these credits and subsequent identification of the reason will ensure that those RECs will not be double sold, and that VCUs can be created with confidence.

In addition to being eligible under the Center for Resource Solutions' Voluntary Green-e Energy program, the RECs generated by Crow Lake are also eligible to be used in the following programs:

- Minnesota's Renewable Energy Standard
- North Dakota's Renewable and Recycled Energy Objective – a voluntary target
- South Dakota's Renewable, Recycled and Conserved Energy Objective – a voluntary target

As noted above, the Crow Lake RECs generated during this Monitoring Period were not used, claimed, or retired in any of the listed programs.

## 1.11 Sustainable Development

While BEPC is committed to meeting one hundred percent of its environmental compliance obligations, the Crow Lake project was not developed per any specific corporate commitment or federal or state obligation, and its output is not currently required to be monitored or reported per any such program.



## 2 SAFEGUARDS

### 2.1 No Net Harm

The largest potentially negative environmental impact is avian mortality, and BEPC is committed to operating the project to minimize the occurrence of such events. During previous monitoring periods BEPC temporarily shut down the project due to whooping cranes in the project area. BEPC has developed a formal program and conducts training for all project employees twice a year on the whooping cranes' spring and fall migrations as well as any contractors who are scheduled to be onsite during the migration period. The training program describes how to recognize a whooping crane, how to track them once spotted and how to protect them from the wind turbines. For the Monitoring Period covered in this report there were no avian issues reported.

BEPC is unaware of any potentially negative socio-economic impacts. In fact, the local community has been very involved in the project and has benefited from it both economically as well as in a number of social criteria. The project was originally developed with a first-of-its-kind community wind investment partnership, where a group of local landowners invested alongside BEPC and owned seven of the project's turbines (as mentioned above the landowners later sold the turbines to BEPC). The Mitchell Technical Institute, a local public technical school with its main campus in Mitchell, SD and a Regional Education Center in Yankton, SD, also participated in the partnership and continues to own one of the turbines, incorporating it as part of their wind technician training program. The project spent a great deal of money improving the local roads during the construction phase and also contributes to the local economy thru its payment of taxes to the three counties in which it operates (Aurora, Brule, and Jerauld) as well as wind lease payments to the local landowners.

### 2.2 Local Stakeholder Consultation

We believe there are three primary categories of local stakeholders: government, local landowners, and first responders. While there was extensive stakeholder engagement during the initial permitting phase of the project, for the most part at this point communications are limited to when issues arise. To that end BEPC maintains the following policies:

- Crow Lake, like all wind projects, is subject to certain local, state and federal oversight and has staff that is responsible for all ongoing reporting requirements as well as any ad hoc requests. Many of these reports are in the public domain (e.g. the Energy Information Association publishes annual generation data from the facility).
- During the permitting and construction phase there were regularly scheduled meetings with the public. Beginning with the project's commencement of commercial operations there are no formally scheduled meetings, and issues are addressed as they arise. At this time BEPC is unaware of any pending land owner issues, though when BEPC is notified of a stakeholder concern they have

procedures in place to direct the concern to the appropriate department, such as the Plant Operations, Right of Way or Legal team.

- Regarding first responders, BEPC holds annual emergency response meetings on the wind farm site, where the safety coordinator invites all local public officials including the Sheriff's Department, Fire Department, ambulance services, emergency dispatch center, and emergency management coordinator.

Due to the substantial economic and social benefits it has generated for the community, the Crow Lake wind farm has and continues to enjoy tremendous local support. There have been to date no stakeholder requests for project modifications.

## 3 IMPLEMENTATION STATUS

### 3.1 Implementation Status of the Project Activity

Crow Lake Wind came online on February 1, 2011 and overall has experienced normal operations since then, including the Monitoring Period covered in this report.

The Southwest Power Pool (SPP) occasionally requests facilities to derate or shutdown in order to check the over-supply of power into the grid. Additionally – in accordance with the information found in the Project Description – BEPC demonstrates continued efforts to minimize the project's avian impacts. Over the course of the Monitoring Period the Project experienced the following events that impacted its electrical generation:

- Icing– The facility was partially derated due to icing of equipment on the following occasions:
  - 1/1/2019 to 1/19/2019
  - 11/29/2019 to 12/3/2019
  - 12/26/2019 (08:27 to 15:23)
- Wind turbine faults – The facility was partially derated due to unscheduled equipment outages on the following occasions:
  - Between 10/15/2019 and 11/8/2019
  - On 11/12/2019 (05:44 to 15:49)
  - On 11/21/2019 (08:00 to 12:42)
  - Between 12/4/2019 and 12/5/2019
- SPP curtailment – The facility was derated by the RTO on the following occasions:
  - 1/15/2019 (17:20-18:05) – Curtailed to 50 MWs
  - 1/16/2019 (07:10-11:11) – Curtailed to 36 MWs
  - 1/18/2019 (07:15) thru 1/21/2019 (14:38) – Limited to 75 MWs
  - 5/21/2019 (18:00-21:00) – Curtailed to 0 MWs

- Transformer work – Between 8/12/2019 and 9/12/2019 the facility was partially derated on 21 occasions due to various upgrades and maintenance on the facility's transformer
- Wind turbine and/or tower maintenance – Between 10/16/2019 and 11/18/2019 the facility was partially derated on 12 occasions to perform maintenance on the wind turbines

Other than these curtailments, no other unscheduled outages or events took place and the project operated normally.

A Schweitzer Engineering Laboratories SEL-734 revenue grade meter (Serial No. 2009160413) installed at the Wessington Spring interconnection point to the IS measures the amount of power delivered to the grid by the Crow Lake project on a continuous basis; data is aggregated hourly and is reported in a MV90 report with 8760 separate data points for the number of kWh generated each hour. Both WAPA and the Basin-QRE Group read this meter on a monthly basis, and the Basin-QRE Group reports the number of megawatt hours (MWhs) generated to the Midwest Renewable Energy Tracking System (M-RETS), which then issues Renewable Energy Credits (RECs) to the project's account. As noted in the project description, the project's registration in M-RETS is being used for reporting purposes only – all certificates for which VCU's are being generated will be retired.

Per the project description, both the MV90 data and the corresponding M-RETS generation records are being provided to corroborate the number of MWhs and RECs generated. For the Monitoring Period there were no significant discrepancies identified and the only variations for 2019 were due to the rounding of fractional MW's. The difference between the annual M-RETS value and the MV90 value is an extremely small 0.0003%.

As documented in the project description, the Schweitzer Engineering Laboratories meter, (Model SEL-734, Serial No. 2009160413) is tested by WAPA on an annual basis. For 2019 the test was conducted on 7/31/2019 and found to be operating in a satisfactory manner; the test report is attached as Appendix A.

## 3.2 Deviations

### 3.2.1 Methodology Deviations

No methodology deviations were applied during this Monitoring Period.  
No methodology deviations were applied during previous reporting periods.

### 3.2.2 Project Description Deviations

No new project description deviations were applied during this monitoring period.  
As reported in the previous Monitoring Report covering the period January 1 thru December 31, 2018, and as mentioned in this Report in Section 1.1, there were two changes in project ownership that occurred since the Project Description was submitted:

1. On July 14<sup>th</sup>, 2017 SDWP sold and assigned their 7 turbines to PWSD1
2. On December 31<sup>st</sup>, 2017, PWSD1 was merged into BEPC and subsequently dissolved

The first change involved a reapportionment of a small subset of the project among the existing owners, and the second was a consolidation of a non-profit subsidiary company with its non-profit parent organization. Neither change involved a “new” or outside entity assuming an interest in the project and did not impact the applicability of the methodology, additionality or the appropriateness of the baseline scenarios.

There was also a change in the metering and reporting of the generation data. Prior to October 1, 2015, a JemStar revenue grade meter (Serial No. 10 21 13576, Model JS-09R6110-C3) generated the MV90 data. The meter was read by WAPA, who in turn served as a Qualified Reporting Entity (QRE) for reporting the data to MRETS.

On October 1, 2015 Basin Electric joined the Southwest Power Pool Regional Transmission Organization. At this time that the meter was changed from the JemStar meter to a Schweitzer Engineering Laboratories SEL-734 revenue grade meter (Serial No. 2009160413). It was also at this time Basin elected to have its Member Revenue Division, a subset of the Asset Management, Resource Planning and Rate Department responsible for handling the acquisition and management of the company’s meter data, serve as the QRE for reporting to MRETS. They are referred to in this Report as the “Basin-QRE Group”. This arrangement is approved under the MRETS Operating Procedures and does not impact the applicability of the methodology additionality or the appropriateness of the baseline scenarios.

### 3.3 Grouped Projects

Crow Lake Wind is a stand-alone project and is not a grouped project.

## 4 DATA AND PARAMETERS

### 4.1 Data and Parameters Available at Validation

Data / Parameter	$EF_{grid,CM,y}$
Data unit	Metric tons / MWh
Description	The CO <sub>2</sub> emissions factor for the grid displaced due to the project activity, during the year y in metric tons CO <sub>2</sub> /MWh, as calculated by the combined operating margin (CM), which is a weighted average of the Simple Operating Margin and Build Margin.

Source of data	Calculated based on Tool for calculating emissions intensity of the grid; Sources include EIA 923/860 databases, EIA fuel emissions factors
Value applied	0.8422
Justification of choice of data or description of measurement methods and procedures applied	$w_1 \cdot \text{Simple OM} + w_2 \cdot \text{Build Margin}$ , where $w_1 = 0.75$ , $w_2 = 0.25$ , Simple OM = 0.98542 and Build Margin = 0.4126. For detailed calculations see Section 3 of the <a href="#">Project Description</a>
Purpose of Data	Calculation of baseline emissions
Comments	The ex-ante option is chosen

Data / Parameter	$EF_{\text{grid,OMsimple},y}$
Data unit	Metric tons / MWh
Description	Simple Operating Margin CO2 emissions factor in year y
Source of data	Calculated based on Tool for calculating emissions intensity of the grid; Sources include EIA 923/860 databases, EIA fuel emissions factors
Value applied	0.98542
Justification of choice of data or description of measurement methods and procedures applied	Calculated based in tool for calculating emissions intensity of the grid. For detailed calculations see Section 3 of the <a href="#">Project Description</a> .
Purpose of Data	Calculation of baseline emissions
Comments	The ex-ante option is chosen

Data / Parameter	$EG_{m,y}$
Data unit	MWh
Description	Net quantity of electricity generated by power unit m in year y (m includes all power units except low cost must run power units)
Source of data	EIA 923/860 databases
Value applied	Varies by unit
Justification of choice of data or description of measurement methods and procedures applied	N/A
Purpose of Data	Calculation of baseline emissions

Comments	N/A
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Data / Parameter	For simple operating margin - $EF_{EL,m,y}$
Data unit	Metric tons / MWh
Description	CO <sub>2</sub> emissions factor of power unit m in year y (tCO <sub>2</sub> / MWh)
Source of data	EIA 923/860 databases
Value applied	Varies by unit
Justification of choice of data or description of measurement methods and procedures applied	Calculated using EIA 923 / EIA 860 databases and EIA Fuel emissions factors
Purpose of Data	Calculation of baseline emissions
Comments	N/A

Data / Parameter	$FC_{i,m,y}$ and $NCV_{i,y}$
Data unit	MMBtus
Description	Amount of fossil fuel type i consumed by power unit m in year y (mass or unit volume) and the Net Calorific Value (energy content) of fossil fuel type i in year y
Source of data	EIA 923/860 databases and EIA Fuel Emissions Factors
Value applied	Varies by unit
Justification of choice of data or description of measurement methods and procedures applied	The EIA 923 database provides the product of these two factors and provides the MMBtus consumed for electricity generation for each plant in the grid.
Purpose of Data	Calculation of baseline emissions
Comments	N/A
Data / Parameter	$EF_{CO2,i,y}$
Data unit	Kg CO <sub>2</sub> e/MMBtu
Description	CO <sub>2</sub> emissions factor of fossil fuel type i in year y
Source of data	EIA 923/860 databases and EIA Fuel Emissions Factors
Value applied	Varies by fuel type
Justification of choice of data or description of measurement methods and procedures applied	EIA fuel emissions factors are default values that have been used to prepare GHG inventories.
Purpose of Data	Calculation of baseline emissions
Comments	N/A

Data / Parameter	EF <sub>grid,BM,y</sub>
Data unit	Metric Tons / MWh
Description	CO2 emissions factor of fossil fuel type i in year y
Source of data	Calculated using Option A2 for simple OM, but including all units as defined in the methodology. EIA 923/860 databases and EIA Fuel Emissions Factors
Value applied	0.4126
Justification of choice of data or description of measurement methods and procedures applied	For detailed calculations see Section 3 of the <a href="#">Project Description</a>
Purpose of Data	Calculation of baseline emissions
Comments	N/A

Data / Parameter	For Build Margin - EF <sub>EL,m,y</sub>
Data unit	Metric Tons / MWh
Description	CO2 emissions factor of power unit m in year y (tCO2 / MWh)
Source of data	EIA 923/860 databases
Value applied	Varies by unit
Justification of choice of data or description of measurement methods and procedures applied	Calculated using EIA 923 / EIA 860 databases and EIA Fuel emissions factors, based on Option A2 as described under the Simple OM found in Section 3 of the <a href="#">Project Description</a>
Purpose of Data	Calculation of baseline emissions
Comments	This factor uses the power generation efficiency factor and the CO2 emissions factor of fossil fuel type l in year y.
Data / Parameter	For Build Margin - $\eta_{m,y}$
Data unit	MMBtus / MWh
Description	Average net energy conversion efficiency of power unit m in year y
Source of data	Default table, Annex 1
Value applied	Varies by unit
Justification of choice of data or description of measurement methods and procedures applied	This is required by the Tool for the option chosen.
Purpose of Data	Calculation of baseline emissions
Comments	N/A

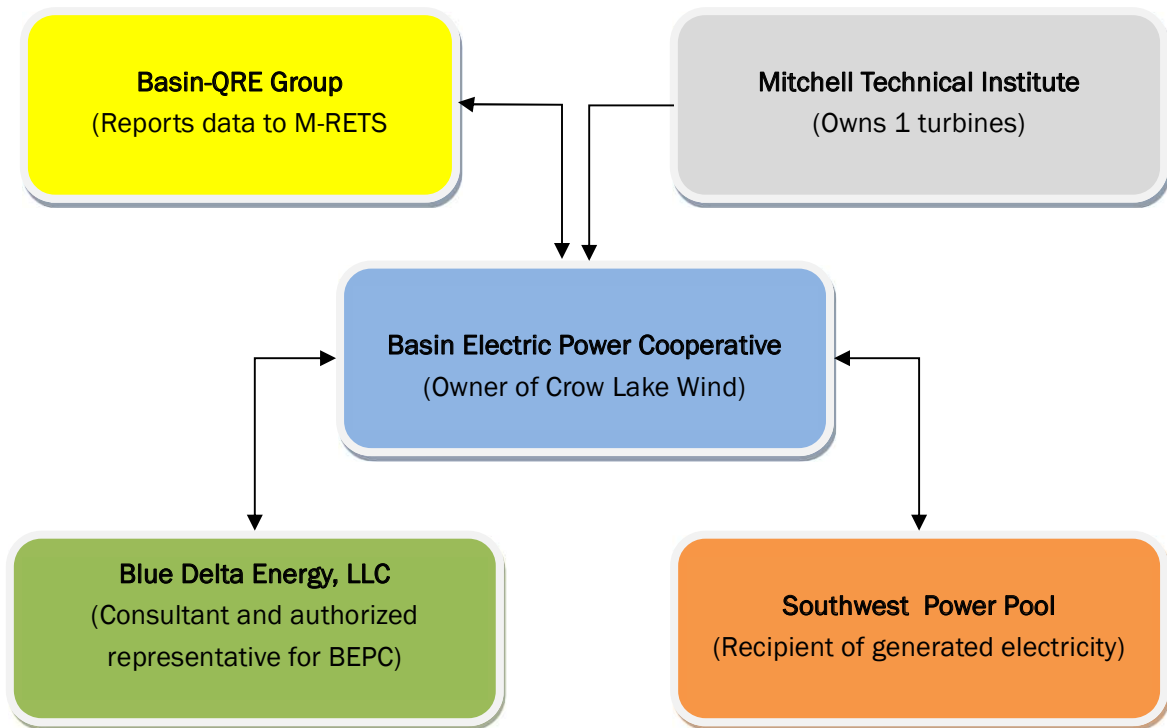
## 4.2 Data and Parameters Monitored

Data / Parameter	EG <sub>facility,2019</sub>
Data unit	MWhs/yr
Description	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWhs/yr)
Source of data	Project activity revenue meter at the site (SEL-734 Meter)
Description of measurement methods and procedures to be applied	<p>Revenue grade meters record power generated on a continuous basis.</p> <p>Production is then aggregated at an hourly interval so that an 8760 hourly production shape is available for each year.</p> <p>Data monitoring takes place on a monthly basis, when WAPA reads the meters and submits data to the Midwest Renewable Energy Tracking System (M-RETS).</p> <p>This monthly data from M-RETS is what will be used to calculate the emissions reductions.</p>
Frequency of monitoring/recording	<p>Data Recording: Continuous</p> <p>Data Aggregation: Hourly</p> <p>Data Monitoring: Monthly</p>
Value monitored	EG <sub>facility,2019</sub> = 527,858 MWh
Monitoring equipment	The project operator has installed a Schweitzer Engineering Laboratories SEL-734 revenue grade meter (Serial No. 2009160413) metering device.
QA/QC procedures to be applied	Per the interconnection agreement and WAPA Metering Guidelines. This meter was tested on 7/31/2019.
Purpose of the data	Calculation of baseline emissions
Calculation method	Meter readings
Comments	N/A

## 4.3 Monitoring Plan

### 4.3.1 Relationship of the parties involved





**Figure 3 Relationship of parties involved in the project**

**Basin Electric Power Cooperative:** Owner and operator of the project (except for 1 turbine owned by the Mitchell Technical Institute).

**Mitchell Technical Institute:** MTI is the owner of 1 turbine at the project site. The output of MTI's turbine is purchased by BEPC.

**Basin-QRE Group:** The internal entity at BEPC responsible for reporting monthly electricity generation to the M-RETS registry.

**Southwest Power Pool (SPP):** SPP is the recipient of all electricity generated by the project.

**Blue Delta Energy, LLC:** a renewable energy development and environmental credit marketing company based in New Haven, Connecticut. Blue Delta Energy, LLC (Blue Delta or BDE) is the consultant and authorized representative for BEPC and is undertaking the verification and validation of the VCS project on behalf of BEPC. Blue Delta personnel were involved with the original Project validation and have completed five previous Monitoring Reports for the Project.

For contact information of the parties involved in the project, see Sections 1.3 Project Proponent and 1.4 Error! Reference source not found.

#### 4.3.2 Data Monitoring

- A Schweitzer Engineering Laboratories SEL-734 revenue grade meter (Serial No. 2009160413) records power delivered to the grid on a continuous basis.

- Production is then aggregated at an hourly interval so that an 8,760 hourly production shape is available for each year.
- Data monitoring takes place on a monthly basis when Basin-QRE group reads the meters and submits data to the Midwest Renewable Energy Tracking System (M-RETS).
- This monthly data from M-RETS is what will be used to calculate the emissions reductions.
- Monitoring records will be retained for 12 years (two years past the project's crediting period of 10 years).

#### 4.3.3 Metering Devices

- A Schweitzer Engineering Laboratories SEL-734 revenue grade meter (Serial No. 2009160413) generates the MV90 data; the meter is read by the Basin-QRE group.
- Based on the Interconnection Agreement between PWSD1 and WAPA, and the WAPA Metering Guidelines, the meter was tested in 2019. The most recent meter test took place on 7/31/2019.

#### 4.3.4 Extraordinary Events

All data used for establishing and verifying GHG emission reductions and removals is collected and processed by Blue Delta Energy with the assistance of the other listed project proponents.

- Data collection and processing is based on BDE's internal QA/QC procedures which include preapproved data and documentation checklists as well as emission reduction calculation methodology.
- All verification data submittal is performed by BDE's senior management, including a monthly comparison of the MV-90 meter data with the generation data reported to M-RETS. Any errors or non-conformities discovered during internal audits or by third party verifiers are addressed in cooperation with the project proponents by BDE's management team.
- The final step of non-conformance resolution is review and (if needed) update of the appropriate sections of the QA/QC procedures.

## 5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

### 5.1 Baseline Emissions

The total MWhs generated (as reported in M-RETS) for the period January 1, 2019 thru December 31, 2019 are: 527,858 MWhs.

The Baseline Emissions are calculated by multiplying the MWhs utilized, by the combined margin (EFgrid,CM,y), which is 0.8422 metric tons CO<sub>2</sub>e / MWh.

**Hence the Baseline Emissions are:**

$$527,858 \text{ MWhs} * 0.8422 \text{ metric tons} / \text{MWh} = 444,562 \text{ metric tons.}$$

### 5.2 Project Emissions

Per the methodology ACM0002, project emissions from this project are zero. Per the methodology, we do not consider project emissions because this is not a geothermal, solar thermal, or hydro project.

### 5.3 Leakage

Per ACM0002, no leakage is considered.

### 5.4 Net GHG Emission Reductions and Removals

Year	Baseline emissions or removals (tCO <sub>2</sub> e)	Project emissions or removals (tCO <sub>2</sub> e)	Leakage emissions (tCO <sub>2</sub> e)	Net GHG emission reductions or removals (tCO <sub>2</sub> e)
2019	444,562	-	-	444,562
<b>Total</b>	444,562	-	-	444,562

# APPENDIX A: METER TEST REPORT