



**MIDWEST RELIABILITY ORGANIZATION**

# COMPLIANCE AUDIT REPORT

## **Pioneer Prairie Wind Farm**

808 Travis St., Suite 700

Houston, TX 77002

NERC Compliance Registry ID: NCR00129

### PUBLIC VERSION

Confidential Information  
(Including Privileged and Critical Energy  
Infrastructure Information)  
Has Been Removed

*Report Date: November 4, 2010*

*Audit Dates: September 22-October 1, 2010*





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## EXECUTIVE SUMMARY

The MRO conducted a compliance audit of Pioneer Prairie Wind Farm, PPWF, NCR00129, September 22-October 1, 2010, for the audit period of September 10, 2008-September 30, 2010. At the time of the audit, PPWF was registered for the Generator Owner (GO), Generator Operator (GOP) and Purchasing and Selling Entity (PSE).

The audit team evaluated 48 requirements in the 2010 NERC Compliance Monitoring and Enforcement Program (CMEP). PPWF submitted information and documentation for the audit team's evaluation of applicable requirements. The audit team reviewed and evaluated all information provided by PPWF to assess compliance with standards applicable to PPWF at this time.

Based on the information and documentation provided by PPWF, the audit team had no findings with 38 applicable requirements. The audit team determined that ten (10) requirements were not applicable to PPWF. The audit team identified findings of no possible violation(s).

These audit results are further explained in the Audit Results section of this report.

There were no ongoing or recently completed mitigation plans and therefore none were reviewed by the audit team.

There were no outstanding remedies from settlements reviewed during the audit.



## AUDIT PROCESS

The compliance audit process steps can be found in the NERC CMEP. The NERC CMEP generally conforms to the current version of United States Government Accountability Office Government Auditing Standards and other generally accepted audit practices.

The intent of the compliance audit is to review evidence that provides reasonable assurance of any findings related to compliance with the applicable Reliability Standards. The compliance audit is conducted in accordance with the Compliance Monitoring and Enforcement Program (CMEP) and applicable NERC Rules of Procedures approved by the Federal Energy Regulatory Commission (for United States entities). The compliance audit includes data requests, tests of compliance records or other related records, and other procedures considered necessary to provide reasonable assurance of any findings.

Audit procedures include tests of documentary evidence supporting compliance, tests of the assertions made regarding compliance, and direct confirmations of actions taken as part of compliance with the Reliability Standards.

If a finding is made of a possible violation, MRO enforcement staff will be provided the details and contact PPWF. After further evaluation, if the possible violation is validated by enforcement staff, PPWF will be provided a written notice of the alleged violation within a reasonable time that shall include the due process protections under the CMEP after the audit report is finalized.

PPWF is responsible for maintaining an adequate internal compliance program to protect the reliability of the Bulk Electric System (BES). The internal compliance program should be designed to ensure compliance with Reliability Standards and that the necessary corrective actions are taken to assure compliance with Reliability Standards on an on-going basis. PPWF is responsible for the design and implementation of programs and compliance controls to prevent and detect violations of Reliability Standards, and for informing MRO about all known or suspected applicable violations according to the CMEP and Rules of Procedure. PPWF is responsible for ensuring that a risk-based, technically sufficient assessment methodology is applied to protect its critical assets.



The Primary Compliance Officer was provided notice of the compliance audit on and the initial request for information was provided to the Primary Compliance Contact on June 25, 2010. The off-site field work of the compliance audit was on September 20, 2010.

### *Objectives*

All Registered Entities are subject to an audit of all Reliability Standards applicable to the functions for which the Registered Entity is registered.<sup>1</sup> The primary audit objectives are to review the original data to determine the level of procedural compliance, review the procedures themselves, and develop a determination based upon on the sufficiency, accuracy of the data and level of compliance. Specific compliance audit objectives are to:

- Review compliance with the requirements of Reliability Standards, including Critical Infrastructure Protection Reliability Standards, that are applicable to PPWF, based on the functions that PPWF is registered to perform;
- Review compliance with applicable Reliability Standards from the NERC 2010 Implementation Plan list of actively monitored standards, and additional NERC Reliability Standards selected by MRO;
- Review compliance with applicable Regional Standards from the NERC 2010 Implementation Plan list of actively monitored standards;
- Review evidence of past self-certifications for accuracy and completeness;
- Evaluate and document PPWF's internal compliance program and controls;
- Review the status of open mitigation plans or relevant remedies from settlements.

### *Audit Scope*

The scope of the compliance audit included the NERC Reliability Standards from the MRO 2010 Implementation Plan. In addition, this audit included any self- reports, self-certifications, outstanding mitigation plans, open remedies from settlements or remedial action directives which have been completed or pending in the year of the compliance audit.

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<sup>1</sup> North American Electric Reliability Corporation CMEP, paragraph 3.1, Compliance Audits



At the time of the audit, PPWF was registered for the functions GO, GOP and PSE. The audit period was September 10, 2008-September 30, 2010.

### ***Confidentiality and Conflict of Interest***

Confidentiality and Conflict of Interest of MRO audit staff are governed under the MRO Delegation Agreement with NERC, Section 1500 of the NERC Rules of Procedure, and MRO employee handbook. PPWF was informed of MRO's obligations and responsibilities under the Delegation Agreement and Rules of Procedures and was provided with a list of MRO audit staff and corresponding work histories. There have been no denials of or access limitations placed upon this audit team by PPWF, and PPWF expressed no objections to MRO staff assignments on the compliance audit.

### ***Methodology***

The audit team reviewed the information, data, and evidence submitted by PPWF and assessed compliance with requirements of the applicable reliability standards. Submittal of information and data was provided to MRO thirty days before the scheduled date of the entity review.

Based on an initial evaluation of initial information provided to the audit team, supplemental information was requested and clarifications were sought from subject matter experts during the audit.

PPWF provided the necessary information and access to subject matter experts without impediment.

The audit team reviewed documentation and evidence provided by PPWF in the form of policies, procedures, emails, logs, studies, data sheets, and other relevant information. Requirements which called for a sampling to be conducted were developed based upon the significance of the sampling to the reliability of the bulk electric system (BES). MRO audit staff obtains sufficient, appropriate evidence to provide a reasonable basis for any findings and conclusions.



The audit report is subject to a review by the Vice President-Compliance from MRO and all findings are subject to an independent review by MRO Mitigation and Enforcement staff. If there are findings, enforcement and mitigation staff from MRO will contact you.

### *Company Profile*

Pioneer Prairie Wind Farm I LLC is owned and operated by Horizon Wind Energy LLC ("Horizon Wind"). Horizon Wind is owned by EDP Renovaveis S.A. (NYSE Euronext: EDPR), a global leader in the renewable energy sector that designs, develops, manages and operates power plants that generate electricity using renewable energy sources. With a sound development pipeline, first class assets and market-leading operating capacity, EDPR has undergone exceptional development in recent years. Energias de Portugal, S.A. ("EDP"), the parent company of EDPR, is a vertically-integrated utility company, headquartered in Lisbon, Portugal. Through its various constituent businesses, EDP holds significant electricity and gas operations in Europe, Brazil, and the United States.

Horizon Wind Energy LLC ("Horizon Wind") develops, constructs, owns and operates wind farms throughout North America. Horizon Wind has developed more than 3,400 megawatts (MW) and currently operates over 20 wind farms (over 2,800 MW) in ten states across the United States. Horizon Wind is based in Houston, Texas, and has over 20 offices across the United States.

The Pioneer Prairie Wind Farm was developed and constructed by Horizon Wind. The facility, with a total installed capacity of 300.3 MW, is located in Howard and Mitchell counties, Iowa, along the Minnesota state line. Pioneer Prairie Wind Farm began commercial operation in December 2008. The facility is divided into two phases: Phase I has installed capacity of 198 MW, provided by 120 Vestas V-82 turbines; Phase II has installed capacity of 102.3 MW, provided by 62 Vestas V-82 turbines.

Pioneer Prairie Wind Farm I LLC is registered with the Midwest Reliability Organization, NERC ID# 00129, as Generator Owner (GO), Generator Operator (GOP) and Purchasing Selling Entity (PSE). When it began operation in December 2008, both Phase I and Phase II were Market Participants in the Midwest ISO Market area. Pioneer Prairie (Phase II) entered into a Power Purchase Agreement (PPA) with Union Electric Company d/b/a AmerenUE on June 10, 2009. The PPA became effective on September 1, 2009, at which time Ameren began to purchase the total output of Phase II. At present,



Phase I remains a Merchant facility, but will enter into a PPA with Tennessee Valley Authority on September 1, 2010 for 115 MW of the total 198 MW capacity.

The Pioneer Prairie Wind Farm facility is interconnected with ITC Midwest's facilities at the Mitchell County Substation. The Phase I facility connects at 345 KV to the interconnecting switch yard via a hard bus connection. The Phase II facility connects via a 3-mile, 345 kV radial tie line from the Phase II substation to the interconnecting switch yard. Both phases utilize a 34.5 KV underground collection system to interconnect the turbines and to their respective substations. The maximum backfeed load for the wind farms is very low: 2 MW for Phase I, and 1 MW for Phase II.

## **AUDIT RESULTS**

The audit team evaluated the applicability of 48 requirements in the 2010 NERC Compliance Monitoring and Enforcement Program (CMEP). The audit team reviewed NERC Reliability Standards for the period of September 10, 2008-September 30, 2010. PPWF provided information and documentation for the audit team's evaluation of compliance with requirements. The audit team reviewed and evaluated the information provided by PPWF to reasonably evaluate compliance with standards applicable to PPWF at this time.

Based on the information and documentation provided by PPWF, the audit team had no findings with 38 applicable requirements. The audit team determined that 10 requirements were not applicable to PPWF. The audit team identified findings of no possible violation(s).

***Findings***

The following table outlines the findings discovered by the MRO audit team related to compliance of the requirements defined in the scope of this audit, and provides supporting documentation for each.

Reliability Std. & Requirement	Finding
CIP-001-1 R1	No
CIP-001-1 R2	No
CIP-001-1 R3	No
CIP-001-1 R4	No
COM-002-2 R1	No
FAC-002-0 R1	No
FAC-008-1 R1	No
FAC-008-1 R2	No
FAC-008-1 R3	No
FAC-009-1 R1	No
FAC-009-1 R2	No
IRO-001-1.1 R8	No
IRO-004-1 R4	No
IRO-005-2 R13	No
NUC-001-2 R1-R9	N/A
PRC-001-1 R1	No
PRC-001-1 R2	No
PRC-001-1 R3	No
PRC-001-1 R5	No



PRC-004-1 R2	No
PRC-005-1 R1	No
PRC-005-1 R2	No
PRC-017-0 R1	N/A
TOP-001-1 R3	No
TOP-001-1 R6	No
TOP-001-1 R7	No
TOP-002-2A R3	No
TOP-002-2A R13	No
TOP-002-2A R14	No
TOP-002-2A R15	No
TOP-002-2A R18	No
TOP-003-0 R1	No
TOP-003-0 R2	No
TOP-003-0 R3	No
VAR-001-1 R5	No
VAR-002-1.1A R1	No
VAR-002-1.1A R2	No
VAR-002-1.1A R3	No
VAR-002-1.1A R4	No
VAR-002-1.1A R5	No



***Internal Compliance Program and Controls***

PPWF compliance program and applicable controls were reviewed during the audit based on a survey; however, a written review is not included as part of the report. For enforcement purposes, PPWF’s internal compliance program and other pertinent information are reviewed by the MRO Enforcement staff and will be factored into any enforcement proceedings resulting from a finding of a possible violation.

***Registered Entity Staff and Observers (if applicable)***

The following is a list of Registered Entity staff and observers present during the audit meetings and/or interviews.

Title	Entity
Chief Technical Officer	Horizon Wind
Regulatory Compliance Manger	Horizon Wind
Director of Regulatory Affairs	Horizon Wind
Director of Operations	Horizon Wind
Director of Engineering	Horizon Wind
Electrical Engineer Manager	Horizon Wind
Regional Operations Manager-Midwest	Horizon Wind
Operations Manager	PPWF
HV Reliability Engineering Specialist	PPWF
Remote Operations Control Center Manager	Horizon Wind
Manager, Asset Management	Horizon Wind
Regulatory Compliance Analyst	Horizon Wind
Regulatory Compliance Specialist	Horizon Wind



### *MRO Audit Staff*

Title	Entity
Compliance Audit Manager	MRO
Compliance Principal	MRO

*This report has been prepared and reviewed on behalf of MRO by:*

Audit Manager	Signature	Date
Russel Mountjoy	<i>Russel W Mountjoy</i>	11/04/10
Vice President of Compliance	Signature	Date
Wayne Van Osdol	<i>Wayne Van Osdol</i>	11/05/10