



Windfarm Submission Requirements

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Version Control

Version	Date	Author	Change Description
1.0	3/8/2012	Gerardo Ugalde	Initial draft to introduce project

Executive Summary

In order to improve SPP's wind power forecast, SPP is in need of additional data for wind resources. Through this effort, additional data requirements as it pertains to wind resources will be added to SPP Criteria, Appendix 7. The additional data includes geographical data, wind resource turbine information and real time weather information that is necessary to accurately forecast the power production of wind resources. A more accurate wind power forecast is a critical component to reliability assessment of the grid. The wind power forecast will also be used in the Marketplace Real-Time Balancing Market (RTBM) and Reliability Unit Commitment (RUC) to commit and economically dispatch wind resources in the new Integrated Marketplace (Protocols V10 sections 4.2.2.5.5, 4.2.2.5.6).

Introduction

In order to accurately forecast the power production of variable energy resources, in this case wind, new data will be necessary. Geographical data submitted during registration will serve to locate upcoming weather patterns at the wind resource site. Turbine information submitted during registration will serve to train the forecasting models. Real time weather submitted through ICCP and outage data submitted in CROW will serve to actively fine tune the forecasting models and to accurately produce a wind power forecast. The wind power forecast will serve two purposes: 1) to improve the reliability assessment of the grid and 2) to commit and dispatch wind resources in the Integrated Marketplace.

Business Impact

Users Impacted

The hosting BA, Generator Operator (GOP) and the registering entity of a wind resource

Business Functions Impacted

The following changes will be effective January 1, 2013

- Weather data and Turbine availability will need to be submitted through ICCP
- Planned outage and derate information will need to be submitted through CROW
- Geographical and turbine information, including ICCP object ID's, will be submitted through a registration packet and/or Model Change Submission Tool (MCST)

Technical Impact

- Generator Operator will be responsible for submitting the ICCP data
 - Turbine availability
 - Wind Speed
 - Wind Direction
 - Temperature
 - Pressure
 - Relative Humidity
- Generator Operator will be responsible for submitting any outage or derate information in CROW
- The registering entity will be responsible for submitting wind resource geographical data and wind turbine information through a registration packet and/or MCST.
 - Longitude and latitude at center of windfarm
 - Longitude and latitude of Met Tower
 - Height of met Tower

- Turbine manufacturer
- Turbine Model
- Turbine Size
- Turbine Hub Height
- Rotor Diameter
- Cold Weather Package

Minimizing Impact

All wind resources should have an established ICCP connection with either SPP or the host BA. Therefore the addition of weather data or turbine availability should not be a concern. For any ICCP related questions, please reference the ICCP architecture project.

Generator operators will continue to submit wind resource outages and derates in CROW, as they do today with any other resource.

The Model Change Submission Tool (MCST) will contain appropriate fields for geographical and turbine information.

Technical Implementation

Registering Entities will need to provide the object IDs for the new weather data and turbine availability SCADA points. Weather data will come in as rolling 10-minute averages updated at least once per minute. Turbine availability should update at least once per minute.

Testing

TBD

Training

Training will not be offered however the following member sessions have been scheduled.

- 05/14/2012 Facilitate Information Session

Cutover

Registering Entities will begin to provide geographical and turbine information in the Model Change Submission Tool effective January 1, 2013

GOP will begin to submit outages and derates directly into CROW software effective January 1, 2013

GOP will begin to submit real-time weather data and turbine availability via ICCP by 1Q2013

Back-out Plan

N/A

Summary of Timeline

Date	Responsible Party	Action
05/14/2012	Gerardo Ugalde	Facilitate Information Session
05/24/2012	Gerardo Ugalde	Present at CWG for discussion
	Gerardo Ugalde	Present at ORWG for review
7/1/2012	Gerardo Ugalde	Present at MOPC for inclusion into Criteria
1Q02013		Implementation

Assumptions

TBD

Risks

TBD

Additional Documentation

TBD

Communication Plan

All project communication and information will be posted to the SPP Change Working Group Project Documentation folder. This MIPO will be updated upon change or with any new information, a redline version posted to the project documentation folder, and the CWG notified.

You may also send questions comments to:

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