



GEN-2006-037N1

***Generator Modification Evaluation
(Turbine Change)***

***SPP Generator
Interconnection Studies***

***GEN-2006-037N1
February 2014***

Executive Summary

The GEN-2006-037N1 interconnection request was first studied as part of the DISIS-2009-001 Definitive Impact Study, North Nebraska Cluster Group 10, which was originally posted in January 2010. The Interconnection Customer then requested a change in wind generator technology to G.E. 1.6MW wind turbine generators, which was posted in July 2011. The Customer signed a Generator Interconnection Agreement (GIA) with SPP with an effective date of May 23, 2011.

The second revision to the GIA, effective June 24, 2013, calls for the Customer to install forty-six (46) General Electric 1.6MW wind turbines for a total of 73.6MW of nameplate capacity. The Customer is also required to maintain a 95% lagging (supplying reactive power) and a 95% leading (absorbing reactive power) at the point of interconnection. The point of interconnection is the Nebraska Public Power District (NPPD) Broken Bow 115kV substation.

In November 2013, the Customer requested to change its generator configuration again to General Electric 1.7MW wind turbines generators while not exceeding the original GIA nameplate capacity. The Customer has supplied all generator, turbine layout, cabling impedances, and transformer impedances. SPP has determined that the Customer may install forty-three (43) General Electric 1.7MW wind turbines generators for a total of 73.1MW of nameplate capacity. The requested change is not considered a Material Modification and no study is required due to the identical electrical characteristics between the previous wind generator and the new wind generator. The Customer is still required to maintain a 95% lagging (supplying reactive power) and a 95% leading (absorbing reactive power) at the point of interconnection. The point of interconnection remains the Nebraska Public Power District (NPPD) Broken Bow 115kV substation.

Nothing in this study should be construed as a guarantee of transmission service. If the customer wishes to sell power from the facility, a separate request for transmission service shall be requested on Southwest Power Pool's OASIS by the Customer.