



***GEN-2010-051***

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

***SPP Generator  
Interconnection Studies***

***GEN-2010-051  
February 2014***

## **Executive Summary**

The GEN-2010-051 Interconnection Request was first studied as part of the DISIS-2010-002 Definitive Impact Study, Cluster Group 9, which was posted in January 2011. The Interconnection Request was studied with one-hundred-twenty-five (125) G.E. 1.6MW wind generators for a total of 200MW. The Customer signed a Generator Interconnection Agreement (GIA) with SPP with an effective date of December 14, 2011 with the 1.6MW generators.

The GIA calls for the Customer to install one-hundred twenty-five (125) General Electric 1.6MW wind turbines for a total of 200MW 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) Dixon County 230kV substation.

In September 2013, the Customer requested to change its generator configuration to General Electric 1.7MW and General Electric 1.85MW wind turbines 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 one-hundred twelve (112) General Electric 1.7MW and (5) General Electric 1.85MW wind turbines for a total of 199.65MW 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 is the Nebraska Public Power District (NPPD) Dixon County 230kV 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.