



**Optional Interconnection Study Report
Report GIP-IR234-OIS-R1**

**Generator Interconnection Request #234
41.4 MW Wind Power Facility
Loganville, NS**

Principal Investigator
Joy Brake, P.Eng.

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Transmission Planning
Nova Scotia Power Inc.

Executive Summary

This report presents the results of an Optional Interconnection Study for the proposed 41.4 MW wind power facility (IR234) to be connected to L-6503. This study has been performed at the request of the Interconnection Customer (IC) in accordance with Section 10 of the Generation Interconnection Procedures. It is provided for information only and is based on the assumptions provided by the IC in the Optional Interconnection Study Agreement. The study performed analysis of the impact the proposed development would have on the NSPI power grid.

System study, including steady state, stability, short circuit, power factor, voltage flicker, Bulk Power System analysis, low voltage ride through, loss factor and under frequency operation was performed. NSPI and NPCC planning criteria were applied.

Based on study results, it is concluded that that the incorporation of the proposed 41.4 MW facility into the NSPI transmission system at the specified location has no adverse effects on the reliability of the NSPI power grid, provided the recommendations given in this report are implemented.

As IR234 is to be operated as an increase to their existing plant with IR225 (59.8 MW), it is expected that the facilities and Network upgrades recommended in the IR225 SIS will be in place. In addition to those facilities, a load transfer scheme will be required at 1N-Onslow to automatically transfer 69kV load in the event of a bus fault at 1N-B61. Control and communications will also be required. The Network Upgrades associated with this installation have a non-binding estimated cost of \$1,045,000.

All costs of associated facilities required at the Interconnection Customer's substation and generating facility are in addition to this estimate.