

Moose Lake Wind Project

Interconnection Facilities Study and Project Plan

Report No. TGI-2016-I110-FS-R0

December 2016

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PROJECT INFORMATION

Interconnection Customer (IC)	██████████
Project Name	Moose Lake Wind Project
Point of Interconnection (POI)	A tap point on 2L337, 0.2 km from Meikle Terminal Switching Station (MKT)
BCH Proposed ISD	August 28, 2017
IC Proposed COD	November 26, 2017
Maximum Power Injection (MW)	15.0
Number of Generator Units	4
Plant Fuel	Wind

EXECUTIVE SUMMARY

██████████ the Interconnection Customer (IC), is proposing to develop the Moose Lake Wind Project in the Peace Region of British Columbia to deliver electric energy to BC Hydro (BCH). The wind farm will consist of a total of four (Enercon – E126 Type 4) wind turbine units delivering a maximum of 15 MW into the BCH system. The power generated from the turbines at the collector station will be transferred through an IC owned 7.7 km long 34.5 kV circuit and stepped up to the 230 kV level through a 240/34.5 kV transformer in the Moose Lake Wind Station (MLW) owned by the IC. MLW will be located adjacent to and southeast of BCH’s Meikle Terminal Switching Station (MKT). The IC’s facilities will be connected to the BCH 230 kV system via a short 0.2 km line tap onto circuit 2L337 which runs between MKT and Tumbler Ridge Station (TLR). The Point of Interconnection (POI) will be at a distance of 0.2 km from MKT which is a recently built station for a higher queued wind farm project. The maximum power injection into the BCH system at the POI, after internal losses and loads, is 15 MW. The proposed Commercial Operation Date (COD) is November 26, 2017.

The line tap from MLW to 2L337 will need to be designed and constructed as a three pole overhead flying tap. The protection of MLW’s 230 kV bus will be included in the 2L337 primary and standby protection. The IC will provide power quality protection and telemetry as required by the BC Hydro standard.

The cost estimates, +/- 20%, for the Interconnection Network Upgrades required to interconnect the proposed project to the BCH Transmission System is \$1.942M. The cost of Revenue Metering is not included in this cost estimate. Separate from the Interconnection Network Upgrades, the cost of Revenue Metering is estimated at \$73 K.

The estimated time to construct the Network Upgrades required to interconnect the project to the BCH Transmission System is approximately 9 months. The attached project schedule provides greater details of the construction timelines.

Date	Description
31 December 2016	SGIA signed and security and deposit in place
2 June 2017	IFC Design complete
27 June 2017	Construction Start
28 August, 2017	Target In-service Date
26 November 2017	IC Commercial Operation Date

TABLE OF CONTENTS

DISCLAIMER OF WARRANTY, LIMITATION OF LIABILITY	i
COPYRIGHT NOTICE	ii
EXECUTIVE SUMMARY	iii
PROJECT INTERCONNECTION REQUIREMENTS	Section 1
PROJECT PLAN	Section 2

SECTION 1

STANDARD GENERATOR INTERCONNECTION AGREEMENT (SGIA)

APPENDIX A – INTERCONNECTION FACILITIES AND NETWORK UPGRADES

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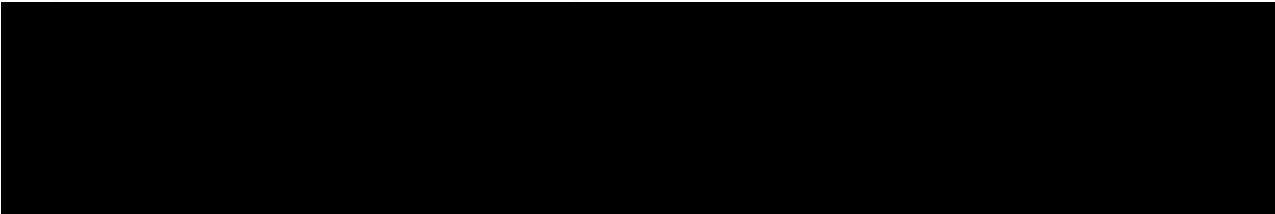
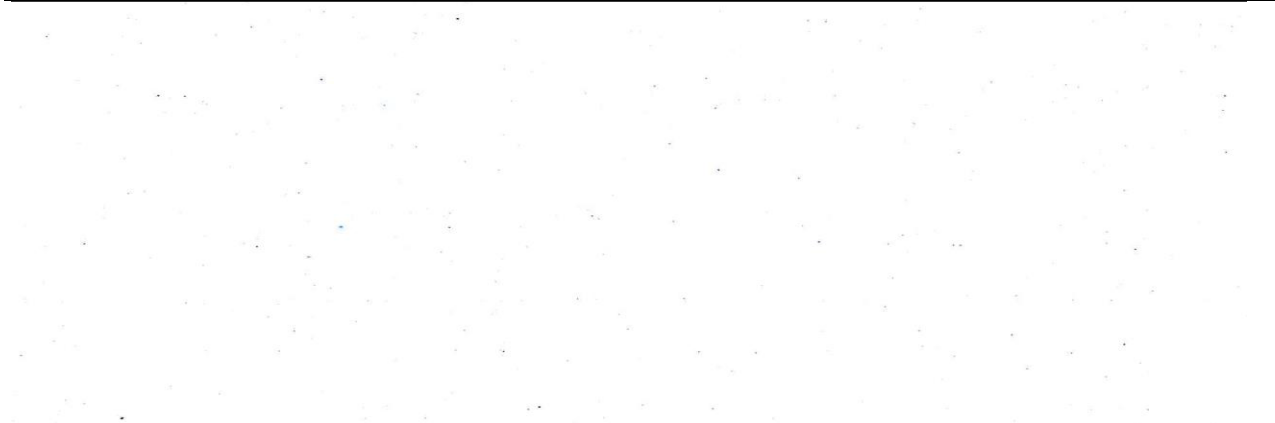
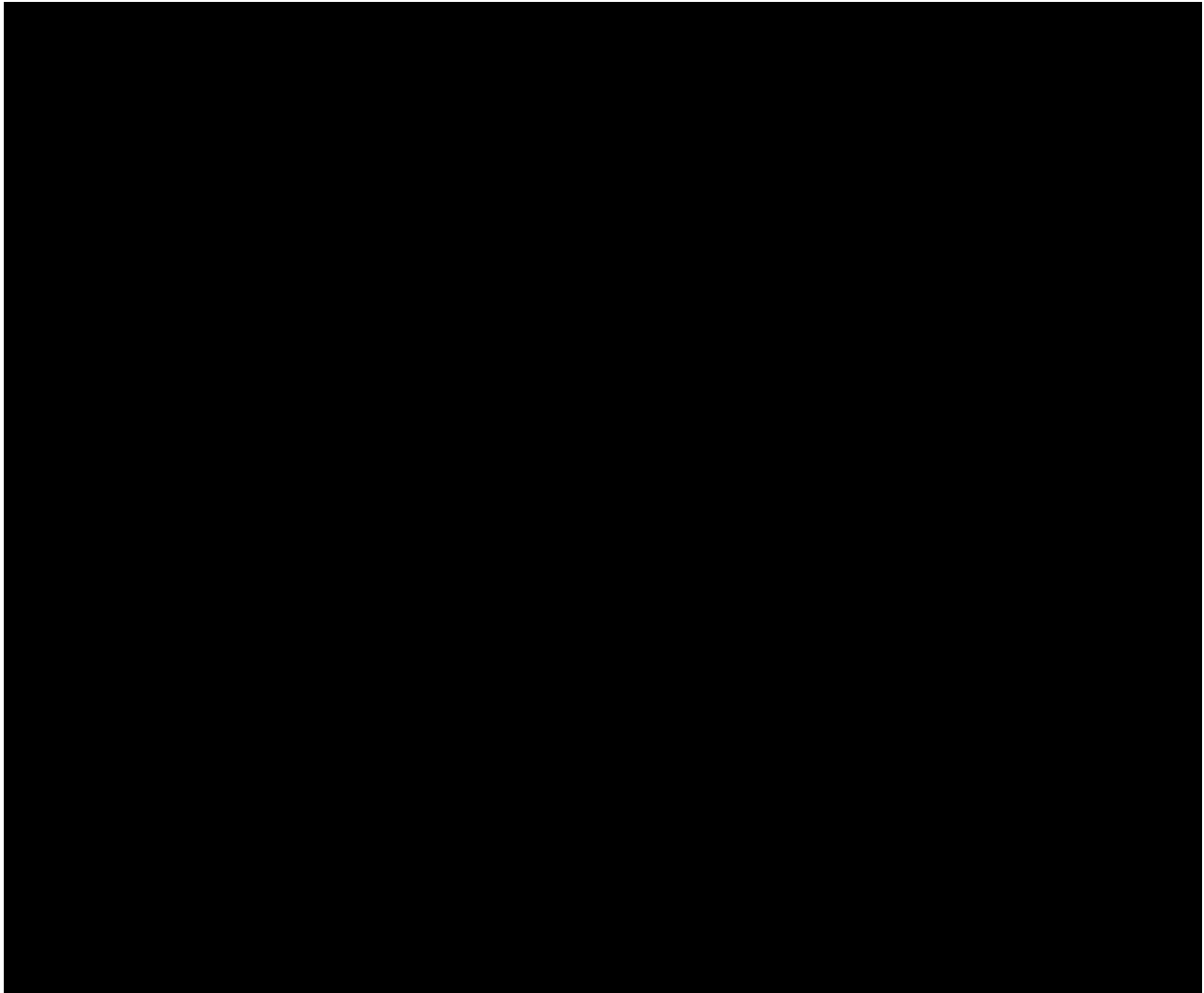
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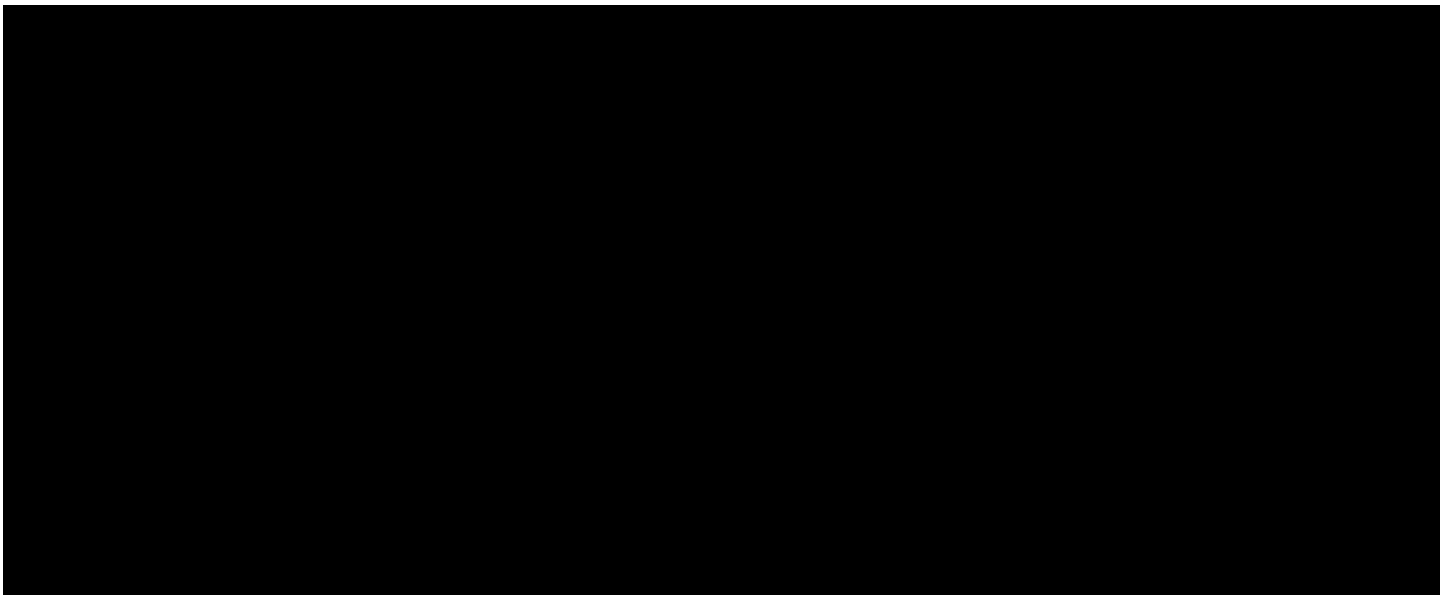
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SECTION 2

INTERCONNECTION FACILITIES STUDY

PROJECT PLAN





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