

SOUTH CANOE WIND PROJECT

Community Liaison Committee Meeting
December 10, 2012
New Ross Fire Hall

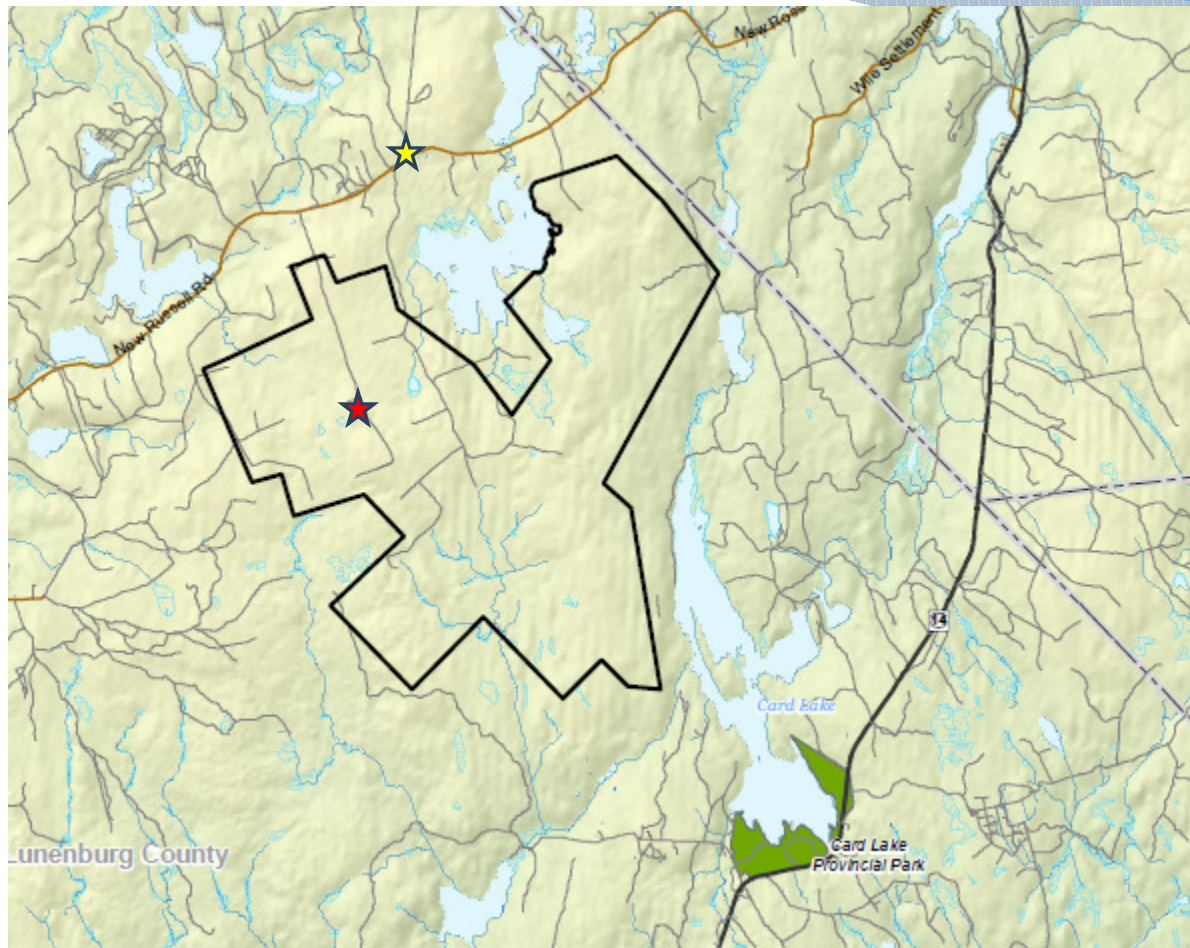


Agenda



History
Environmental Criteria
Energy Assessment
RFP Process
Acciona Wind Turbines
Layout
Visual Impact
Milestones
Local Benefits

Project Site History



- * Minas Basin Pulp and Power purchased property from the then Nova Scotia Light and Power Company in 1952
- * Meteorological towers installed on and near site in 2004 and 2010

★ 96.5 meter mast installed in February, 2010 in New Russell

★ 48 meter mast installed in May, 2004, on site

Project Evolution

- * 2004
 - * met tower at South Canoe site
 - * two others installed on Minas lands at Blomidon and Morden
 - * transmission interconnection study
- * 2006
 - * Minas/Ventus partnership
 - * #2 in transmission interconnection queue
- * 2006
 - * Respond to Municipal Utilities RFP
- * 2007
 - * Respond to NSPI RFP
- * 2010
 - * Install instruments on CTV tower



Public information session held at Upper Vaughan community centre during 2007 RFP process

Project Evolution

- * March 2011, Minas issued RFP for South Canoe Wind Project partners
 - * Responses from about a dozen of potential partners
 - * Short list of 5 potential partners
 - * Final partnership arrangement



- * Renewable Electricity Administrator launched RFP in 2012
- * First open houses for South Canoe Wind Project - February 11 in Upper Vaughan and February 13 in Chester
- * Environmental Assessment submitted May 24, 2012 and Approved July 13, 2012
- * RFP application submitted June 27, 2012
- * Power Purchase Agreement signed in August 2, 2012

Layout Design Criteria

Criteria	Setback Distance
Lot Line	165 m
Public Road	200 m
Rare Plant/Wetland	30 m
Provincial Park	60 m
Wind Speed < 6 m/s	Location Dependent
Slope > 15 degrees	Location Dependent
Residence	1200 m

Energy Assessment



Design Criteria (1.2km setback, sound, DNR, wetlands, etc.)

Terrain (elevation, vegetation, constructability)

Wind (direction, speed)

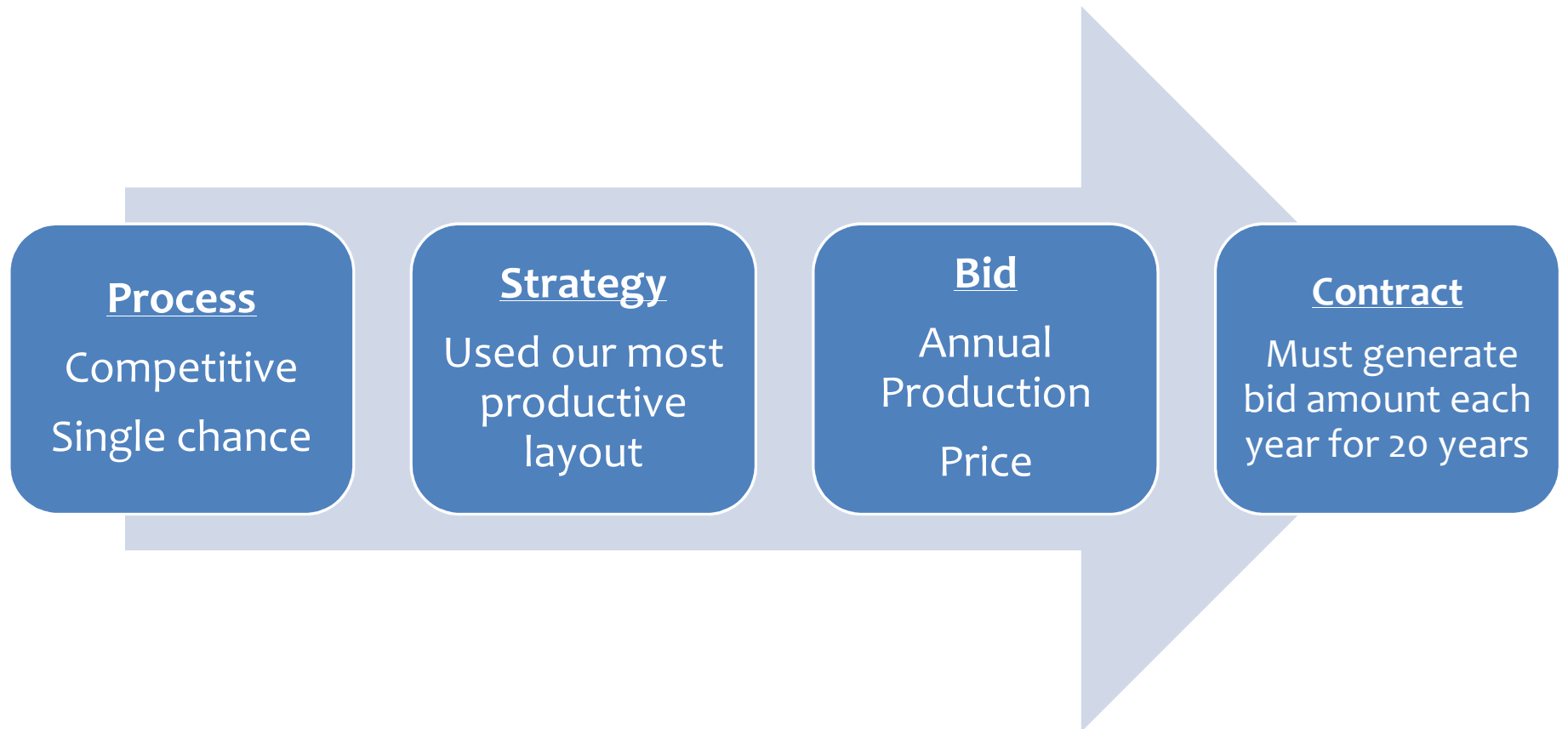
Technology (power curve, atmospheric limits)

Optimization Program
(Run on Computer)

Outputs

- site layout
- energy production estimate

Request for Proposals Process



South Canoe Turbine Selection

AW3000-116, 92m Tower, 57m Blades



- * NSPI RFP for Wind Turbine Generators in 2011
 - * Comprehensive market scan including all tier one manufacturers.
 - * Garrad Hassan participated in technical review.
 - * **AW3000-116 lowest price \$/MWh at South Canoe**
 - * Due diligence visits:
 - * **Spain Manufacturing (September 2011):** HQ, Nacelle, Blades, Control Centre/WTG Monitoring Centre.
 - * **Control Center and O&M (October 2011)** – Chicago, IL North America Headquarters.
 - * Wind Farm visit: Meadowlake, Indiana, EDF Energies Nouvelles- Acciona turbines have the highest availability in fleet of 3000MW; EDF has WTG's from most Tier 1 OEMs.
- * Up-scaled design on AW 1500 (**2500 + units worldwide**).
- * High fleet availability **98.2%** (2011 North America).
- * 15 Year full wrap O&M agreement.



Acciona



GLOBAL DIVERSIFIED COMPANY FOCUSED ON SUSTAINABILITY

- › 100 year history, headquartered in Madrid, Spain
- › Over 30,000 employees in 32 countries
- › Revenue: €6.3b in 2010; € 4.8b through 9 months 2011 (5% growth)
- › No. 1 in sector in Dow Jones Sustainability Index
- › Three core business units:
 - Acciona Energy
 - 5th largest owner of wind projects in the world—over 250 projects with >8,000 MWs
 - Operates the most renewable energy technologies of any global energy company (7)
- › Acciona Infrastructure: Global infrastructure developer—roads & bridges, hospitals, rail
- › Acciona Aqua: World leader in desalination



Acciona



NORTH AMERICA TRACK RECORD

Rim Rock (installation 2012)
189 MW

Glacier I-II
210 MW

Tatanka
180 MW

Pioneer Grove
6 MW

EcoGrove
100.5 MW

Red Hills
123 MW

Lamèque
45 MW

Meadow Lakes
99 MW

TOTAL:
MW: 1,510.5
WTG: 1,005

Oaxaca II-III-IV
306 MW

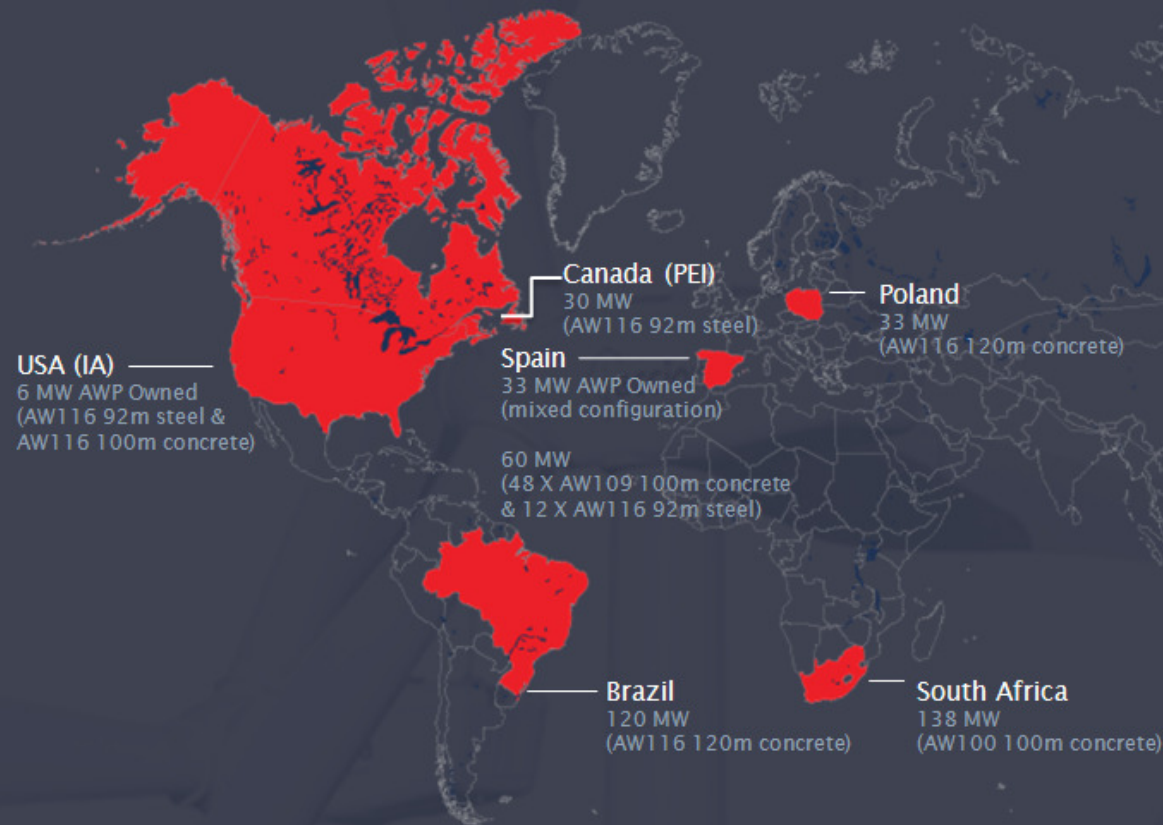
Cancún
1.5 MW

Eurus
250.5 MW

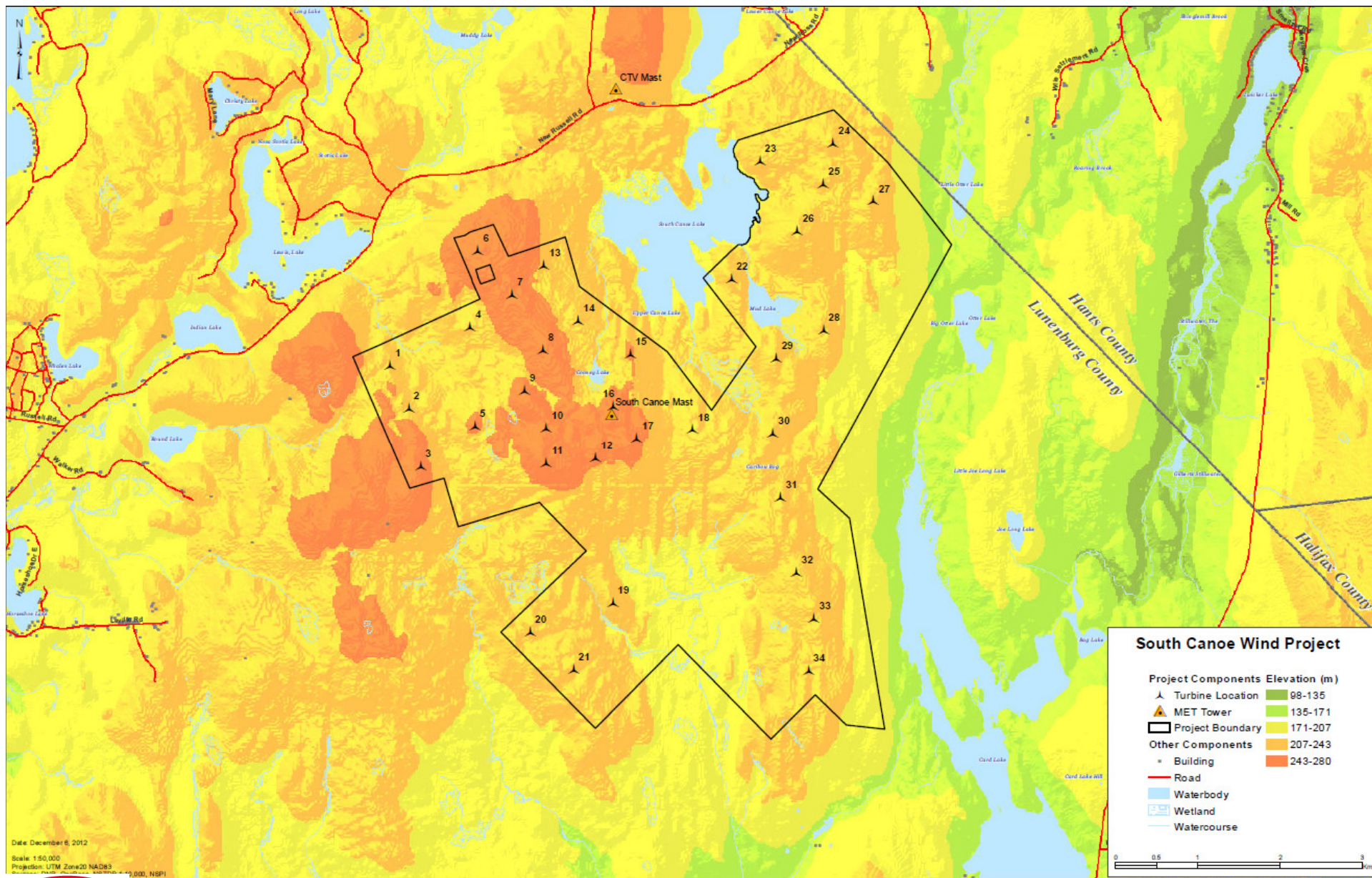
Acciona AW-3000



AW-3000 ORDERS AND COMMITMENTS*: 531 MW



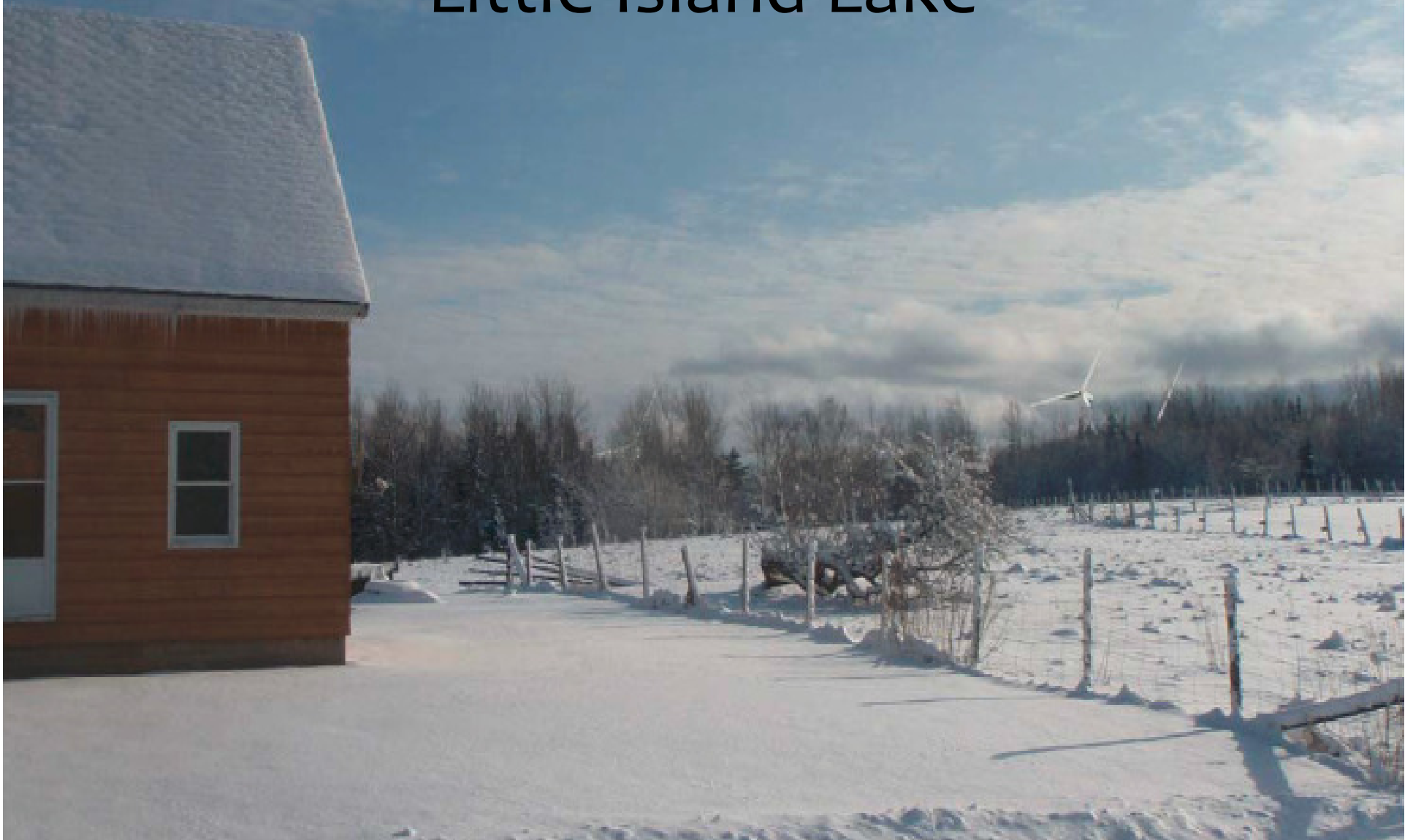
* Installations in 2012-2014; 102 MW is not included since it is not publicly announced



Photomontages

- * Photos taken from various locations around the project site
- * Photos rendered using geographic information, elevation data and turbine dimensions
- * Results based on final layout

View from New Russell Road Near Little Island Lake



View from New Russell Road (Near South Canoe Lake)

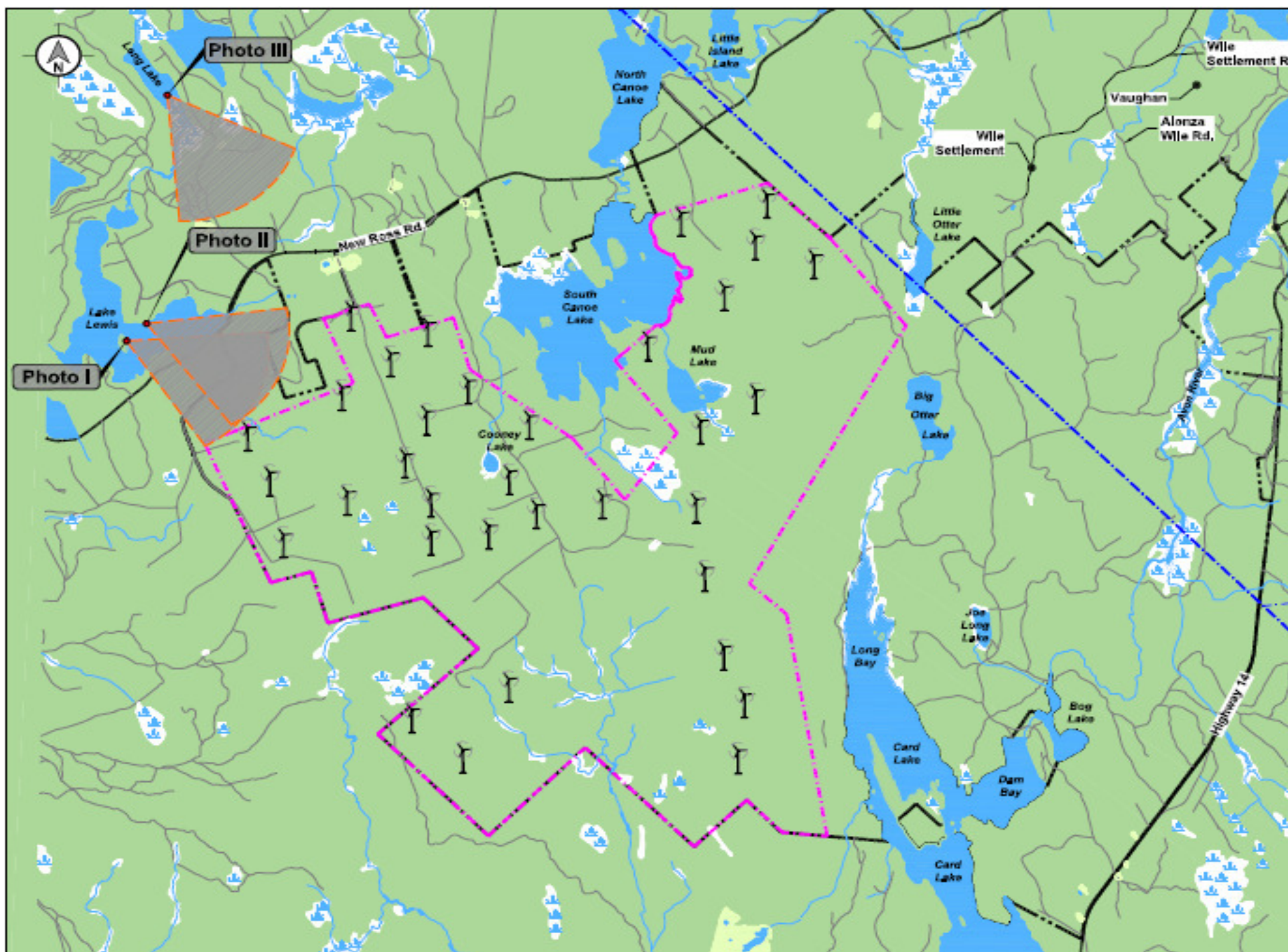


View from New Russell Road (at Red Shirt Road)



View from Wile Settlement





View from Lake Lewis



View from Lake Lewis (Island)



View from Long Lake



PROJECT MILESTONES



Milestone	Date
Project Award	August 2012
Signed Project Operating Agreement	August 2012
Development Application Submitted	October 2012
Turbine Supply Agreement Signed	December 2012
Construction Services Agreement Signed	December 2012
Geotechnical Investigation	Dec 2012- Feb 2013
System Impact Study Complete	January 2013
Engineering Design	Jan – Apr 2013
Development Application Public Information Session/Hearing	Jan-Feb 2013
Site Layout finalized	February 2013

PROJECT MILESTONES



Milestone	Date
Land Clearing	Feb-Apr 2013
Development Application Decision	February 2013
Road Construction	May-Oct 2013
Foundations Construction	July-Nov 2013
Collector System Construction	Mar-Jul 2014
Interconnection Construction	Mar-Jul 2014
Wind Turbine Deliveries	Jun-Aug 2014
O&M Building	May-Aug 2014
Wind Turbine Erection	Jul-Sept 2014
Energization	August 2014
Wind Turbine Commissioning	Aug-Nov 2014
Commercial Operation	December 2014

SCOPE OF WORK- NOVA SCOTIA



Turbine Supply

- Towers
- NS Transportation
- Offloading



Turbine Installation

- Cranes
- Ironworkers
- Electrical Installation



Site

- Project Team
- Environmental Consulting
- Job Trailers
- Temporary Services
- Security
- Signage
- Met Tower Installation



O&M Building

- Engineering
- Structure
- Well/Septic
- Communications
- Furnishings



SCOPE OF WORK- NOVA SCOTIA



Roads

- Geotechnical Investigation
- Engineering
- Land Clearing
- Material Supply
- Construction
- Maintenance



Foundations

- Engineering
- Onsite Batch Plant
- Formwork



Collector System

- Engineering
- Material Supply
- Construction



Substation

- Engineering
- Material Supply
- Construction



Transmission Line

- Engineering
- Material Supply
- Construction

