



## **South Branch Wind Farm**

**Construction Progress** 

#### South Branch Wind Farm Project Basics



- 10 Siemens SWT-3.0-113 Turbines
  - 3.0 MW Capacity per turbine
  - 99.5 meter height to nacelle
  - 113 meter rotor diameter
  - Direct drive turbine, no gearbox needed
- Connecting with Hydro One at 44 kV distribution lines
- H.B. White is Engineering and Construction contractor
- Renewable Energy Approval granted in July 2013
- 20 year FIT contract signed with the OPA





# **Domestic Content**



- Tower sections were built by CS Wind in Windsor, ON
- Blades were manufactured by Siemens in Tillsonburg, ON plant (SE of London)
- 95% of project man-hours must be from Ontario
- 105 employees on site at peak
- Concrete and gravel sourced locally
- Significant local spend has been made by construction staff for food, housing and other expendables





# **Project Progress Update**



- Project began commercial operations on March 4<sup>th</sup>, 2014
- Site restoration begins in April 2014
  - Public turning radii removal
  - Private access road clean-up and restoration
  - Public road surveys
- Establish South Branch Community Fund
  - Discussing fund guidelines at April 1<sup>st</sup>, South
    Dundas Council Meeting





# **Cutting of Access Road**







# **Underground Cable Trenching**







## **Foundation Mudmat**







## **Poured Foundation**







## **Finished Foundation and Base**







#### **Tower Erection**



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## **Delivery of Tower Component**







# **Substation Transformer Delivery**







#### **Permanent Met Tower**







## **Stacked to Nacelle**







#### **Rotor Prior to Lift**







# **Rotor Lift**







# **Final Rotor Lift**

#### **Crane Equipment Used**

- Hub Height Crane
  - Liebherr LR 1600
  - 600 short ton/544 metric ton crawler
  - Total Boom Length
    - 360 ft/110 m
  - Standing Height
    - 340 ft/104 m
- Mid/Base Crane
  - Manitowoc 999
  - 250 short ton/227 metric ton crawler crane
  - Total Boom Length
    - 180 ft/55 m
  - Standing Height
    - 140 ft/43 m
- Eight cranes were used in total to build the project







# **Fully Assembled**





