New Creek Wind and Renewable Power at Enbridge

– Ian MacRobbie
General Manager,
Eastern Region Operations

ENBRIDGE®

A North American Energy Company

The Enbridge System

Over the past 65 years, Enbridge has become a leader in the safe and reliable delivery of energy in North America.

We Transport Energy – operating the world's longest, most sophisticated crude oil and liquids transportation system, Enbridge moves 15 percent of daily U.S. crude imports.

We Distribute Energy – owning and operating one of North America's largest natural gas utilities, Enbridge serves more than two million customers in Ontario, Quebec and New York State.

We Generate Energy – one of the largest wind and solar producers in Canada, with a growing renewables base in the U.S., Enbridge has invested nearly $5 billion in green power assets since 2002.

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Why Renewables at Enbridge?

- Our role is to ensure we meet society's need for secure energy supply—while, at the same time, reducing emissions and protecting the environment.
- Climate change is a global issue.
- As the world transitions to more low-carbon energy sources, we believe that Enbridge is uniquely positioned, as North America's leading distributor of oil and natural gas, and as a major player in the renewable energy business.
- As global demand for energy continues to grow and society shifts the supply mix towards more renewables and natural gas, we believe in playing our part in that bigger picture by investing in lower-impact solutions that will be of benefit to everyone.

" …We can find common ground to protect our environment while ensuring we meet our collective need for energy in a sustainable way."

Al Monaco
President and CEO, Enbridge

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Canadian and European Wind Assets

– Saskatchewan

- SunBridge– 11 MW project, Enbridge's first renewable energy project. Operational since 2002.

– Alberta

- Blackspring Ridge – At 300 MW, the project is currently the largest operating wind facility in Alberta.
- Magrath – 30 MW project operational since 2004.
- Chin Chute – 30 MW facility operational since 2006.

– Ontario

- Enbridge Ontario Wind Project – two projects totaling 190 MW, on the west coast of Lake Huron.
- Talbot Wind – operational since 2011, the 99 MW project is located on the north shore of Lake Erie.
- Greenwich Wind – the 99 MW facility is the first wind project to be wholly located on Ontario crown land.

– Quebec

- Lac Alfred – 300 MW facility located 400 km east of Quebec City.
- Massif du Sud – Operational since 2013 the project generates 150 MW of energy.
- Saint Robert Bellarmin – Located east of Montreal, the project generates 80 MW of power.

– United Kingdom

- In December 2015, Enbridge entered the UK offshore wind market with its 24.9 per cent interest in the Rampion Offshore Wind Project. Currently under construction, the 400 MW project is expected to be fully operational in 2018.

– Éolien Maritime France,

- Acquisition of a 50% interest in EMF, a French offshore wind development company with the opportunity to increase our renewable portfolio by 1,428 MW.

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Solar, Hydro and Power Transmission

Solar

– Ontario Solar

- **Sarnia Solar** – when it was first built, in 2009, Sarnia Solar was the largest photovoltaic project in the world and at 80 MW, it's still one of the largest in Canada.
- **Amherstburg Solar** – 15 MW project, operational since 2011 and is comprised of 244,000 solar panels.
- **Tilbury Solar** – Comprised of 82,500 panels this 5 MW project has been operational since 2011.

Hydro + Transmission

– Wasdell Falls Hydro

- In December 2015, Enbridge entered the hydro business with the operation of Wasdell Falls. The project represents North America's first deployment of the Very Low Head technology.

– Montana-Alberta Tie Line

- In 2011 Enbridge entered the power transmission business to facilitate the import and export of power between Canada and the U.S. The 300 MW, 230 kV line runs from Picture Butte, Alberta to just north of Great Falls, Montana.

Our U.S. Renewable Portfolio

– Limon, Colorado

- In 2011, Enbridge entered the U.S. wind market with the 250 MW Cedar Point Wind Project.

– Madison County, Indiana

- The 200 MW Wildcat Wind facility, operational since 2012

– Texas

- 202 MW Magic Valley Wind Project, in Willacy County, operational since 2012.
- Operational since 2014, Enbridge owns the 110 MW Keechi Wind located in Jack County.

– Clark County, Nevada

- In March 2012, Enbridge entered the U.S. solar energy market with the 50 MW Silver State North Solar facility.

– Vale, Oregon

- Oregon's first commercial geothermal power facility, Neal Hot Springs is a state of the art, emission free project.

More than **250,000** homes served by Enbridge's U.S.-based renewable energy projects.

(Not including New Creek Wind)

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110 MW Keechi Wind Project (Jack County, Texa

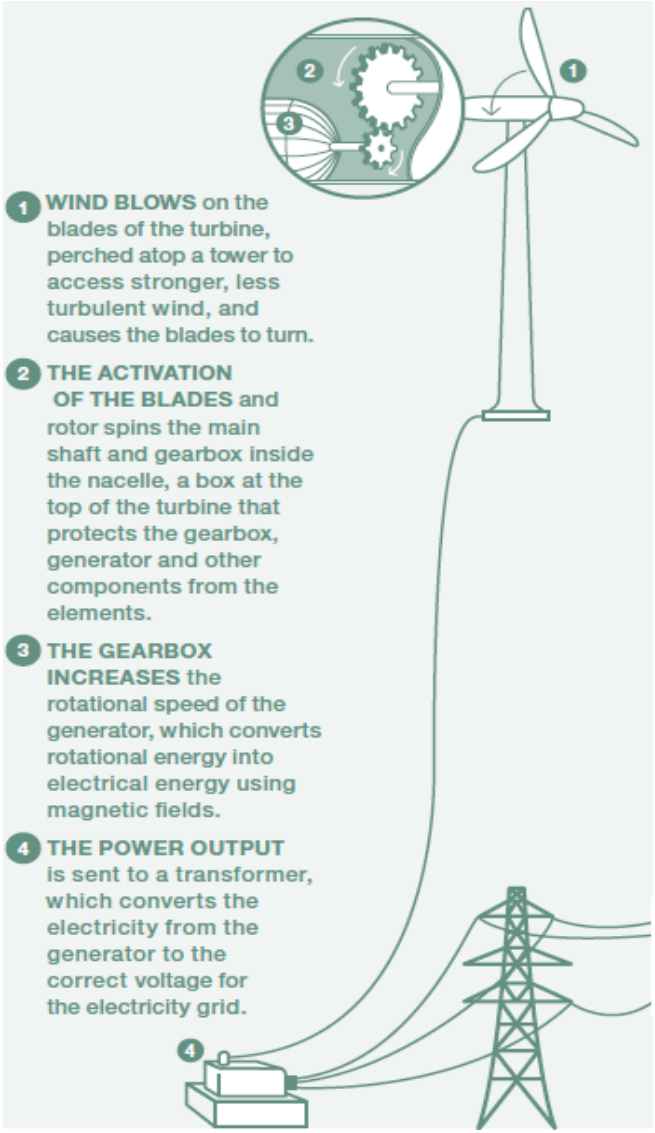
Wind 101

Siting a wind farm:

- Access to transmission
- Available land
- Adequate resources

How it Works:

1. Wind blows on the turbine blades, causing them to turn.
2. Activation of blades spins shaft and gearbox inside the nacelle.
3. Gearbox Increases generator speed, converting rotational energy into electrical energy.
4. Power output sent to transformer, converting electricity into correct voltage for the grid.



Grant County, West Virginia: New Creek Wind

- **Project Size**: 5,000 acres
- **Installed Capacity**: 103 MW
- **Homes Served**: Nearly 23,000

- Targeted to be in service December 2016, New Creek Wind will deliver electricity to the PJM power market.
- Developed by EverPower and constructed by Gamesa Corp, the project is comprised of 49 Gamesa wind turbines. 45 G97 Turbines and 4 G90 turbines.

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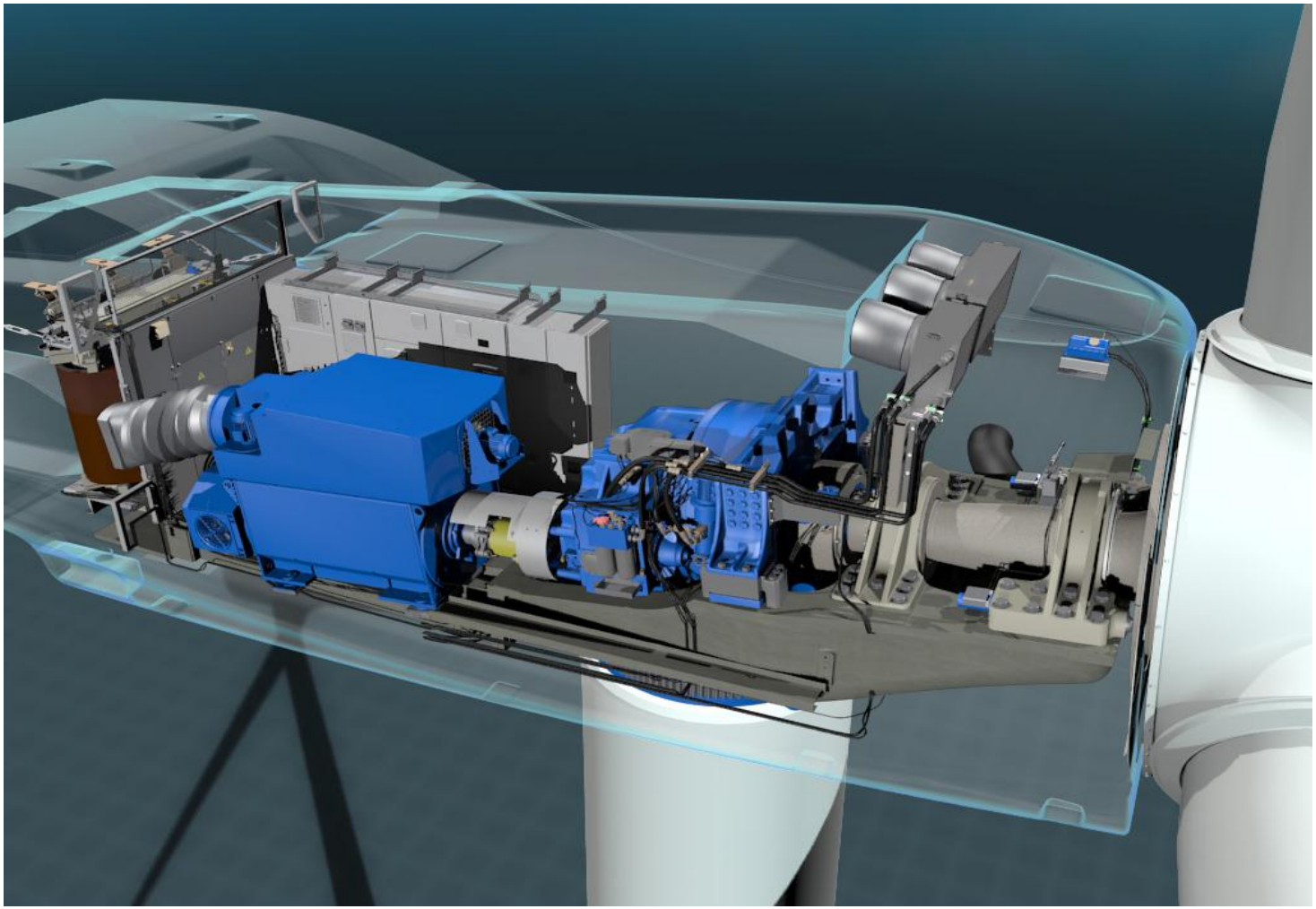
Gamesa G97/90 Turbines



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New Creek Wind Farm

- Tie into Dominion's 500 kV transmission line originating at Mt. Storm
- Entry into PJM market
- New Creek Substation and Dominion Switching Station
- Construction Update

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New Creek Operations

- Staffing
  - Enbridge Staff – 2 full-time operations personnel
  - Gamesa – 7 full-time technicians
  - Contractors – snow removal, Balance of Plant maintenance, high voltage work
- Landowners – 31 landowners (not all with turbines on property)
- Key activities in first year
  - 500 hr and annual service by Gamesa
  - bird and bat monitoring

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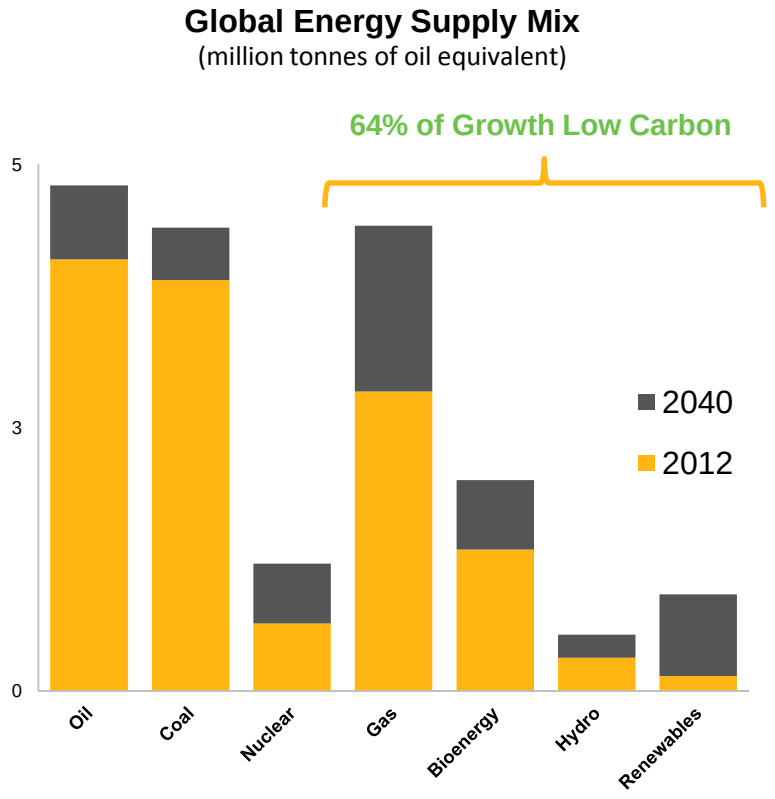
Oil, Gas AND Renewables

- Growing population – by some estimates two billion more people in the next 25 years.
- We'll need <u>all</u> sources of supply to meet the demand to feed, house, clothe and provide for the growing population.
- More oil, more gas, more wind, more hydro, more solar, more of every kind of energy that we know of…including some forms of energy that haven't been invented yet.



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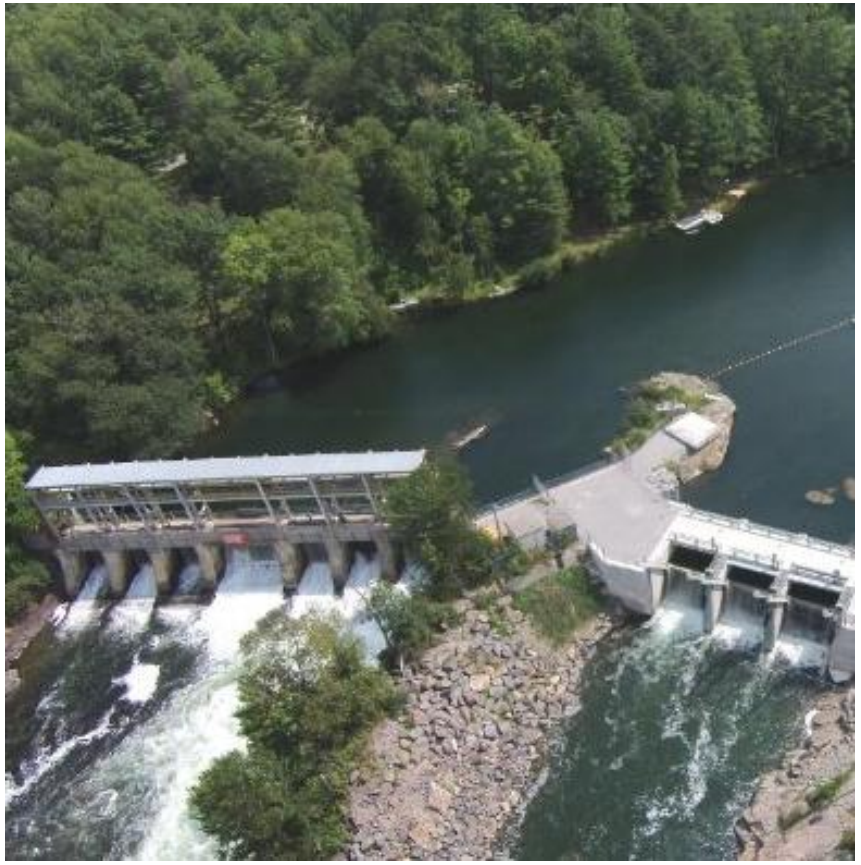
The Future of Renewables at Enbridge

- **Double renewable generation capacity by 2020.**
  - 400 MW Rampion Offshore Wind, UK.
  - 50 per cent interest in a French offshore wind development company to co-develop three projects totaling 1,428 MW
  - Market opportunities in hydro, gas-fired generation, transmission etc.

- **Strengthen our existing portfolio.**
  - Move to self-operating existing assets.
  - Move into earlier-stage projects: from idea origination to the development, execution, operation and value maximization of asset.



Thank You.

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