

Presentation to the Energy Development and Transmission Committee

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Topics

- NextEra Energy Overview
- Cost of Renewables
- Request for Proposal (RFP) Process
- Power Purchase Agreements (PPAs)
- Repowering
- Status of Federal Production Tax Credits (PTCs)
- Economic Benefits of Wind Projects

NextEra Energy is a premier U.S. power company comprised of two strong businesses, supported by a common platform



- ~\$73 B market capitalization⁽¹⁾
- ~47 GW in operation^(2,3)
- ~\$98 B in total assets⁽³⁾



- The largest electric utility in the United States by retail MWh sales



- The world leader in electricity generated from the wind and sun

Engineering & Construction

Supply Chain

Nuclear Generation

Non-Nuclear Generation

1) As of February 15, 2018

2) Megawatts shown includes assets operated by Energy Resources owned by NextEra Energy Partners

3) As of December 31, 2017

NextEra Energy Resources has invested \$2.5 billion in North Dakota to develop renewable, oil and gas assets

North Dakota



\$2.5 billion* – Total Capital Investment
\$1.7 million* – Annual Property Taxes
21.4%* – Market Share of Electricity Sold

\$5.8 million* – Annual Lease Payments
98* Employees

- Development projects not included in these figures.

NextEra Energy Resources has invested over \$2 billion to develop over 1,250 MW of wind projects in North Dakota

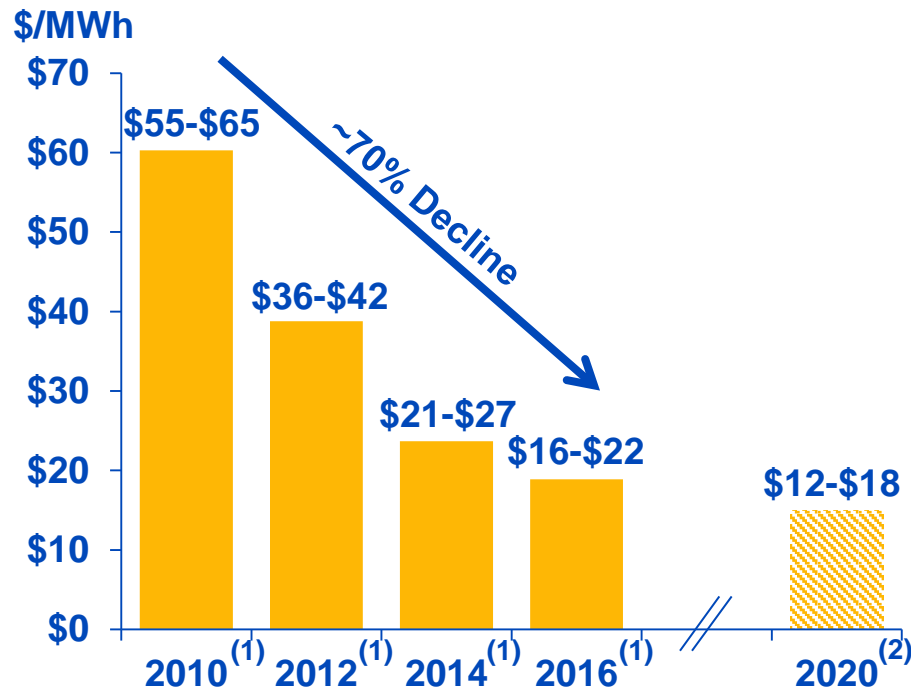
Wind Projects

Project Name	County	Size	Customer
Ashtabula	Barnes	148.5 MW	Minnkota Power
Ashtabula II	Griggs & Steele	120.0 MW	Great River Energy, Minnkota Power
Ashtabula III	Barnes	62.4 MW	Otter Tail
Baldwin	Burleigh	102.4 MW	Basin Electric
Brady I	Stark	149.7 MW	Basin Electric
Brady II	Hettinger	149.0 MW	Basin Electric
Langdon	Cavalier	118.5 MW	Minnkota Power, Otter Tail
Langdon II	Cavalier	40.5 MW	Minnkota Power
North Dakota	LaMoure	61.5 MW	Basin Electric, Otter Tail
Oliver County	Oliver	50.6 MW	Minnesota Power
Oliver County II	Oliver	48 MW	Minnesota Power
Oliver III	Morton & Oliver	99.3 MW	Minnkota Power
Wilton Wind Energy	Burleigh	49.5 MW	Basin Electric
Wilton Wind II	Burleigh	49.5 MW	Basin Electric

NextEra Energy Resources built its first North Dakota project in 2003

With continued technology improvements and cost declines, wind energy prices have continued to decline

Levelized Cost of Electricity from Wind (Including Production Tax Credits)



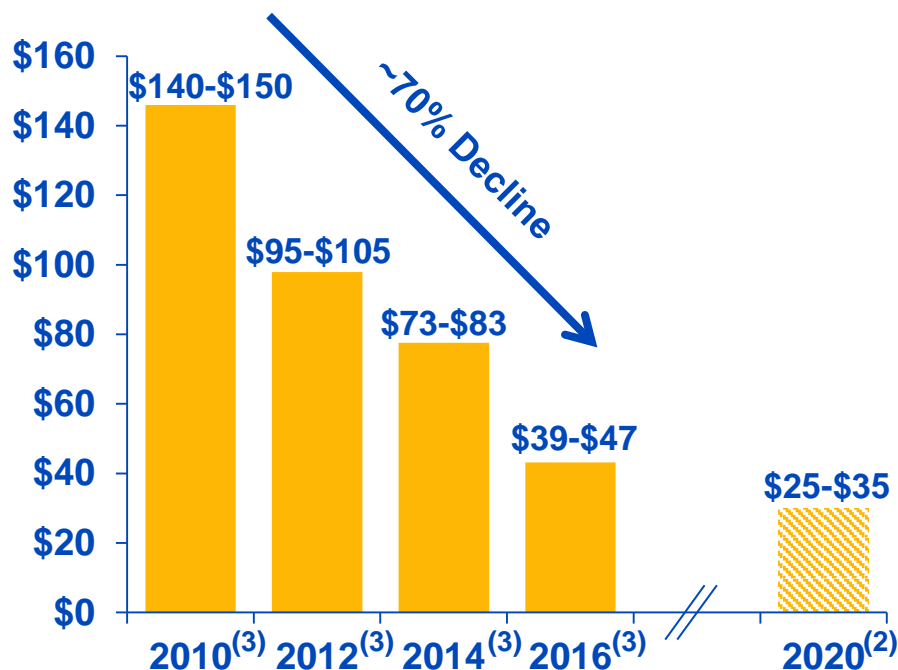
1) Source: U.S. Department of Energy, 2015 Wind Technologies Market Report – August 2016

2) Energy Resources' estimate

3) Source: IHS Markit; the use of this content was authorized in advance; any further use or redistribution of this content is strictly prohibited without written permission by IHS Markit; all rights reserved

Solar energy prices also continue to decline with technology advancements and are expected to be competitive into the next decade

Levelized Cost of Electricity from Solar (Including Investment Tax Credits)



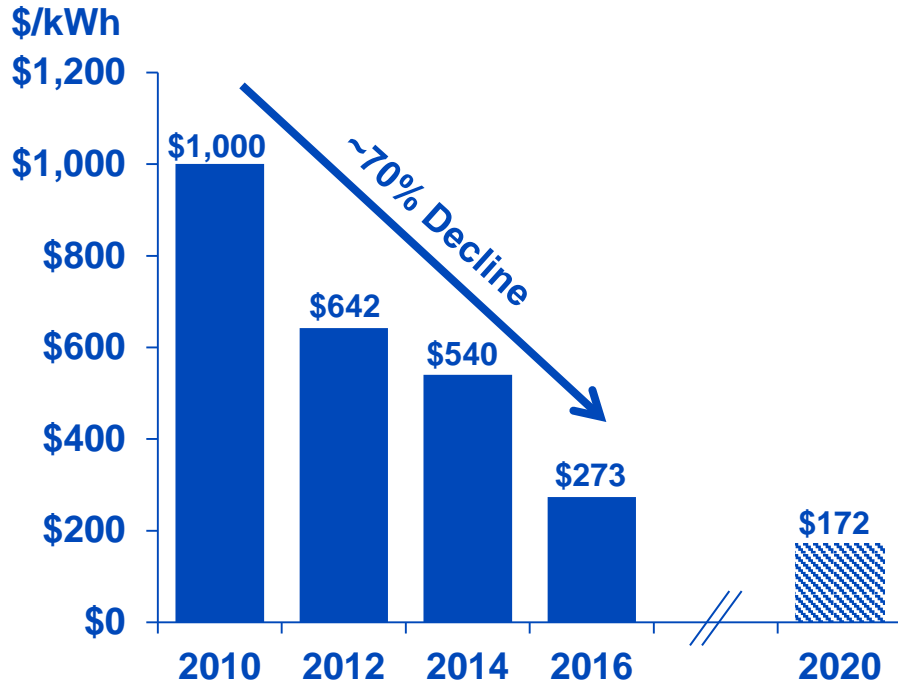
1) Energy Resources' estimate

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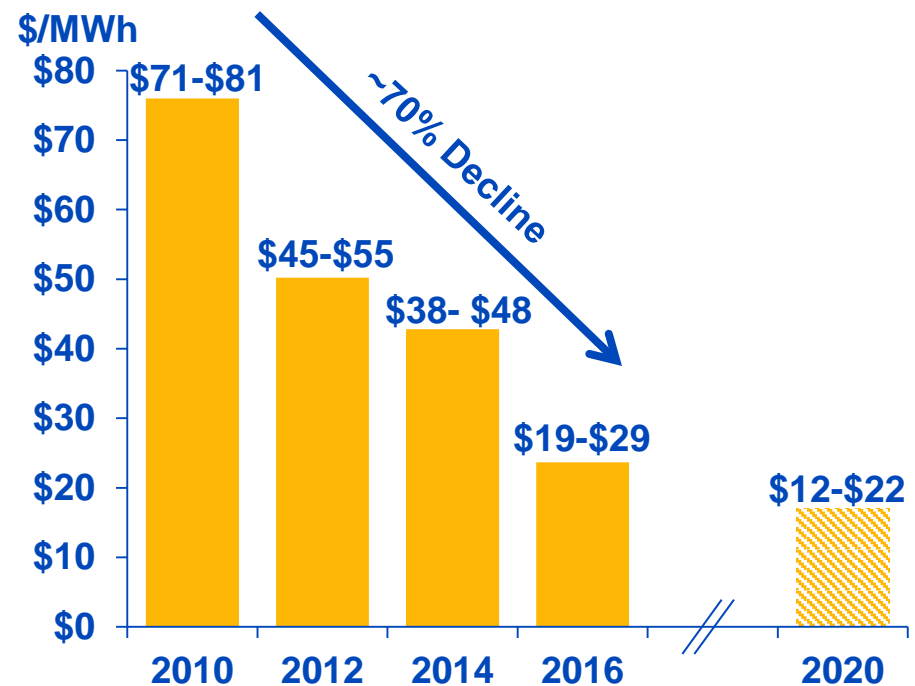
Battery efficiency improvements and cost declines are expected to expand the storage market and enable even greater renewables expansion

Storage Technology

Lithium-ion Battery Pack Cost⁽¹⁾



4-Hour Battery Storage Adder⁽²⁾



1) Source: Bloomberg New Energy Finance

2) Energy Resources' Estimate; assumes: 4 hour battery storage at 40% of nameplate solar capacity; total battery system costs calculated as two times Bloomberg New Energy Finance battery pack cost

NextEra Energy Resources builds renewable energy projects when selected by an energy provider as part of a Request for Proposal (RFP) process

NextEra Energy Resources' Process to Respond to RFPs

- **Energy provider (e.g., co-op, municipality, investor-owned utility) issues RFP to fulfill energy, capacity and/or Renewable Energy Credit need**
- **NextEra Energy Resources proposes a project to best meet the customer's requirements and bids into the competitive process**
- **If the project is selected, a Power Purchase Agreement (PPA) is negotiated and advanced development/construction proceed**

A Power Purchase Agreement (PPA) is a legal contract between a buyer and seller for the sale and purchase of power

PPA Basics

- **A PPA is a contract between a producer (wind generator) and energy provider (such as an electric co-op or utility)**
- **Defines the commercial terms between the parties:**
 - Power price and payment terms
 - Commercial operation date
 - Schedule for delivery
 - Termination

A PPA is an alternative to building that provides supply portfolio diversity and risk mitigation for energy providers

PPA Benefits and Obligations

- **Energy provider benefits**
 - Predictable power price over a period of time
 - No up-front capital by buyer
 - Development & construction risk is borne by the seller
 - Opportunity for tax exempt entities to receive benefit of lower priced power that cannot take advantage of PTCs
- **Seller obligations**
 - Assumes all development & construction risk
 - Assumes operational and technology risks
 - Future cost increases are borne by the seller¹

Over the last five years, NextEra Energy responded to 11 different renewable energy RFPs from North Dakota energy providers

Examples of North Dakota Requests for Proposal

Coop/Utility	RFP Date	Product	Size	Delivery Date
Basin Electric	2017	Renewable energy	100-200 MW (wind) 20 MW (solar)	Not specified
Montana-Dakota	2016	Capacity and energy	10 - 100 MW 10 - 200 MW	Jun 1, 2019 - May 31, 2024 Jun 1, 2024
Basin Electric	2016	Capacity or capacity and energy	25 - 100 MW blocks	2017-2017
		Solar energy	25 MW total (1-2 MW projects)	Not specified
		Capacity or capacity and energy	25 - 100 MW blocks	2021-2030
		Wind and solar energy	100-150 MW (wind) 25-50 MW (solar)	Not specified
		Capacity or capacity and energy	25 - 50 MW blocks	2020-2030
		Renewable energy	100-150 MW (wind) 25-50 MW (solar)	Not specified
Northern States Power Company	2016	Wind energy	75 MW	Dec 31, 2020

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Examples of North Dakota Requests for Proposal

Coop/Utility	RFP Date	Product	Size	Delivery Date
Basin Electric	2015	Capacity or capacity and energy	25 - 100 MW blocks	2017/2018 - 2023/2024
			25 - 100 MW blocks	2017-2023
			25 - 50 MW blocks	2017-2023
Montana-Dakota	2013	Capacity and energy	20-150 MW	Jun 1, 2014

NextEra Energy Resources is considering partial repowering opportunities on its older wind assets

Characteristics of a Repowering

Full Repower

- **Total tear down and construction of a new wind project**
 - Decommission and remove existing turbines
 - Obtain new permits
 - Build new foundations, roads, collection system, project substation, and install state of the art turbines

Partial Repower

- **Upgrade existing project**
 - Capture technology advancements and improved component designs to increase efficiency and reliability
 - Uses existing infrastructure (tower, roads, collection, substation) and has minimal surface impacts
 - Potential for turbine uprate
 - Could require amendments to permits, PPAs, and GIAs

NextEra Energy Resources successfully repowered ~1.6 GW of wind assets throughout Texas in 2017 and has ~714 MW of additional repowers planned for 2018

Repower Experience

- Repowered approximately 960 turbines among nine projects located in Texas during 2017
- A combination of GE and Siemens turbines were repowered in the Texas projects
- Repowered turbines are capable of producing up to ~30% more MWh vs. the pre-repowered project



NextEra Energy Resources anticipates a repowering opportunity set of 3.3 GW to 4.3 GW from 2017 – 2020

A partial repower of existing wind projects provides an opportunity to modernize legacy technology and share value with customers through improved economics

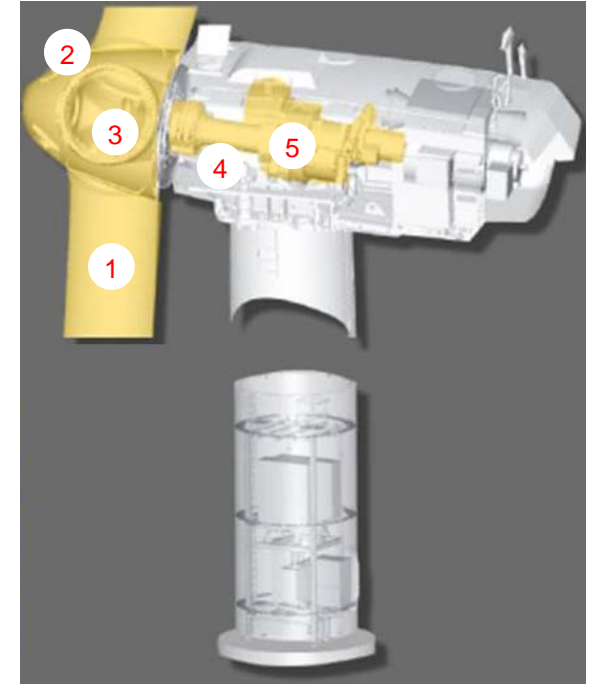
Partial Wind Repowering Benefits

- **Repowering upgrades will:**
 - Extend the useful life of the assets
 - Improve turbine efficiency
 - Improve project availability
- **If repowering leads to a replacement of more than 80% of the turbine's value, the turbine could re-qualify for Production Tax Credits (PTCs)**
 - This creates an opportunity to share the value of a repower through a new Power Purchase Agreement with a lower per MWh price
- **Leveraging existing infrastructure (roads, collection system, foundations, interconnect) limits development disruption**
- **Repowering can be accomplished on a rolling basis, working on a small group of turbines at any given time, which allows the project to largely maintain current output during the repowering**

A partial repowering leverages many existing parts and project infrastructure and does not require tearing down the entire asset

Summary of Partial Repowering Upgrades

- Repowering does not touch existing infrastructure, tower, pad mount transformer or foundation
 - Work replaces blades, hubs, gearboxes and other mechanical components
- Work is done on a rolling basis with a few turbines at a time to minimize loss of output from the existing project
- Amount of ground disturbance is minimal as existing roads are sufficient for work
- Replaced components will vary by turbine manufacturer
 - NextEra Energy repowered GE and Siemens turbines in 2017 and is planning additional technology repowerings in the future



Example Replaced Components:

- 1 Blade
- 2 Hub
- 3 Variable Pitch System
- 4 Bearing & Main Shaft
- 5 Gear Box

Federal tax policy has allowed the wind industry to develop, but the production tax credit (PTC) is now phasing out

History and Background

- **PTCs are available for any size wind facility**
- **PTCs are determined based on the amount of electricity produced by the wind facility during the first ten years of operation**
- **PTCs were created under the Energy Policy Act of 1992 and have been extended several times**
- **In December 2015, the PTC was extended for five years with a gradual phase-out**
- **PTC phase down remained unchanged in President Trump's 2017 tax reform**

The 2017 tax reform law did not change the phase-out of the PTC

Wind PTC Schedule

Start of Construction	Commercial Operation Deadline	Wind PTC Value
Prior to 1/1/2017	12/31/2020	100% (~\$23/MWh)
Prior to 1/1/2018	12/31/2021	80% (~\$18/MWh)
Prior to 1/1/2019	12/31/2022	60% (~\$14/MWh)
Prior to 1/1/2020	12/31/2023	40% (~\$9/MWh)

Wind energy provides positive economic impacts for North Dakota through manufacturing, construction and operation of wind farms

Economic Benefits of Wind Energy in North Dakota¹

- A study was conducted by NDSU with a grant from the North Dakota utility shareholders
- \$170 million economic impact – 2016
- 500 jobs created – 2016
- \$7.7 million property taxes – 2016
- \$119 million manufacturing activities – 2016
- \$2.8 billion total capital invested

The wind energy industry also acts to diversify and expand North Dakota's energy industry and economy

Source: NDSU 2017 Study: *Wind Energy Industry's Contribution to the North Dakota Economy in 2016*

1) 2016 annual numbers, except for total capital invested, which is the cumulative capital investment over the last 15 years.

NextEra Energy pays millions of dollars in annual property taxes and land leases in North Dakota

Economic Benefits from NextEra Energy Wind Projects

- Over the last four years, NextEra Energy Resources has paid over \$10 million in property taxes in North Dakota
- Counties receiving property tax payments:
 - Barnes, Burleigh, Cavalier, Griggs, Hettinger, LaMoure, Morton, Oliver, Stark, Steele
- During this same period, NextEra Energy Resources has paid landowners in these counties nearly \$24 million in lease payments

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