Transmission Development
Enhancing the Power Grid
John Kopinski, Director Development
Agenda

- Introduction
- NextEra Energy Transmission Overview
- Greenfield Transmission Development
August 2003 northeast blackout is the genesis of my career building the grid; leads me to my current role developing transmission across North America.

John Kopinski – Career Pathway

- 2003: Consulting Eng
- 2004: BS Electrical Eng
- 2004: Planning & Development
- 2013: Director, Transmission Development
- 2022: MBA

2003
2004: Process Results
2013: ITC
2022: NextEra Energy Transmission

2004: Michigan Tech
2022: Michigan Ross
Agenda

• Introduction
• NextEra Energy Transmission Overview
• Greenfield Transmission Development
NextEra Energy is a leading clean energy company
Composed of two primary businesses

- Clean Energy Generation Portfolio
- Supply Chain, Engineering and Construction
- Best-in-class Operations and Innovation Leader
- Power Delivery and Transmission

- 70 GW In Operation
- $121 B Market Capitalization
- $172 B Total Assets

The largest electric utility in the United States by retail MWh sales and number of customers.
The world leader in electricity generated from the wind and sun and a world leader in battery storage.
We plan to leverage our leadership position to be the world’s largest, most profitable competitive clean energy company.
NextEra Energy Resources is the leading North American clean energy company

World leader in electricity generated from the wind and sun

~34 GW\(^{(2)}\) of clean energy in operation
- 23 GW wind
- 5 GW solar
- 2 GW nuclear
- 1 GW battery storage

Over 21 GW backlog of wind, solar and storage contracts

~$79 B in total assets

Generation and Storage Capacity

- Wind 64%
- Solar 16%
- Storage 8%
- Nuclear 6%
- Natural Gas 4%
- Other 2%

Capacity shown includes assets operated by NextEra Energy Resources owned by NextEra Energy Partners, all other assets are included at ownership share

Note: All data is as of 9/30/2023 except for backlog which is as of 10/24/2023
As the leading competitive transmission company in North America, we are prepared to lead U.S. decarbonization.

We own, develop, finance, construct, operate and maintain transmission assets across the continent. Our subsidiaries were among the first non-incumbents to be awarded projects by system operators and utility commissions in California, Kansas, Missouri, New York, Oklahoma, Texas and Ontario, Canada.

NEET’s portfolio includes operating assets in California, Illinois, Indiana, Kansas, Kentucky, Nevada, New Hampshire, New York, Oklahoma, Texas and Ontario, Canada, as well as numerous projects under development in the United States and Canada.
Agenda

• Introduction
• NextEra Energy Transmission Overview
• Greenfield Transmission Development
Renewable resources are not evenly dispersed across the U.S. and require transmission to move these new/future generation resources to load

https://www.nrel.gov/analysis/seams.html
The future grid variability can be managed with bulk intertie flows between regions, but new connections are needed to make this happen.

The North American Renewable Integration Study: [https://youtu.be/g_rFj-9M96](https://youtu.be/g_rFj-9M96)
What makes greenfield development complicated is that there are generally longer development cycles to bring resources online.

Greenfield development – requires multi-faceted development

- Resources unlocked
- Interconnection with existing grid
- Engineering/Permits
- Policy/regulatory
- Routing/Siting/Land
- Financing/Commercial

DOE is working to unlock certain hurdles faced by these projects with National Interest Electric Transmission Corridors and other enabling policies.
Discussion