



# *Renewable Energy Approach*

**September 10, 2019**

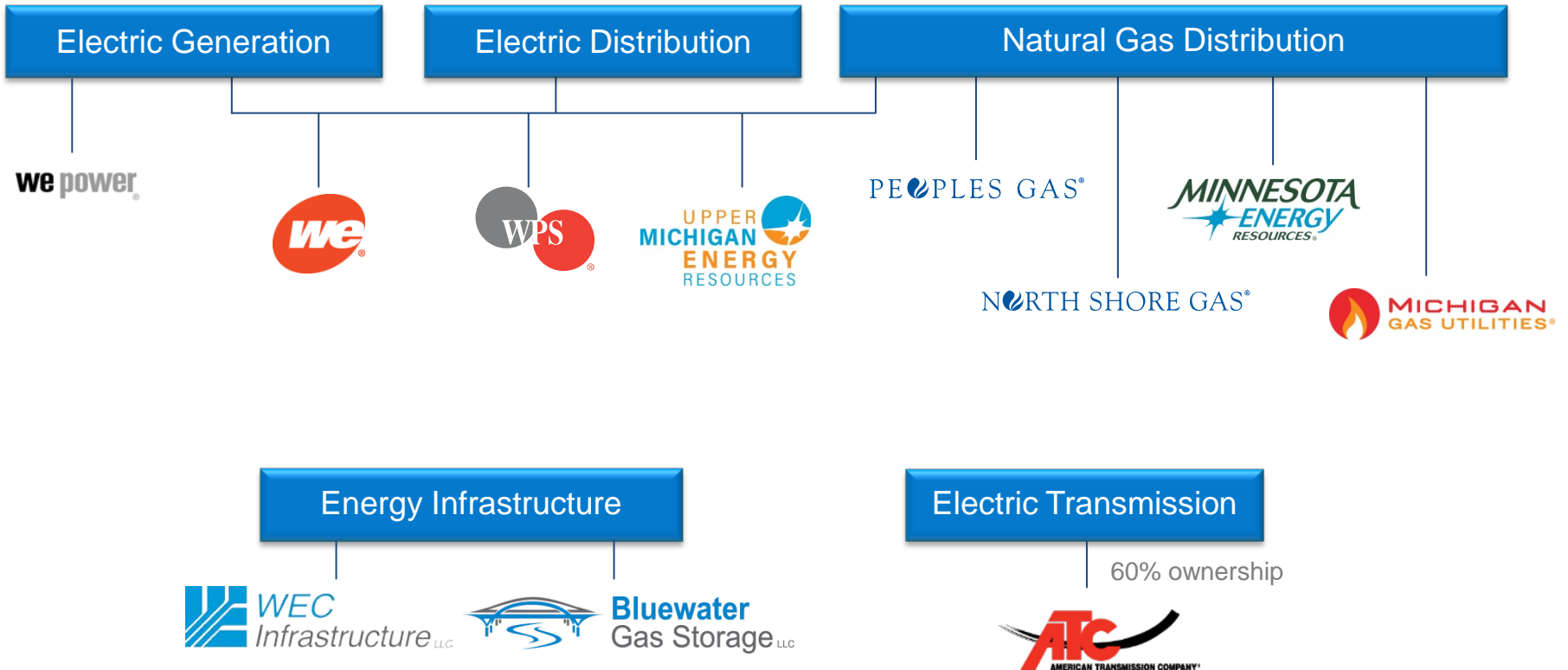
*Rich Stasik, Director – Regulatory,  
Finance, Planning, Systems &  
Strategic / Special Projects*

# Agenda

- *Company Overview*
- *Company Statistics*
- *Environmental Stewardship Goals*
- *Wisconsin Generation Fleet Re-Shaping*
- *Other Renewable Generation Investments*
- *Questions*

# *Company Overview*

# WEC Energy Group



# *Company Statistics*

## Company Statistics

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1.6 million electric customers

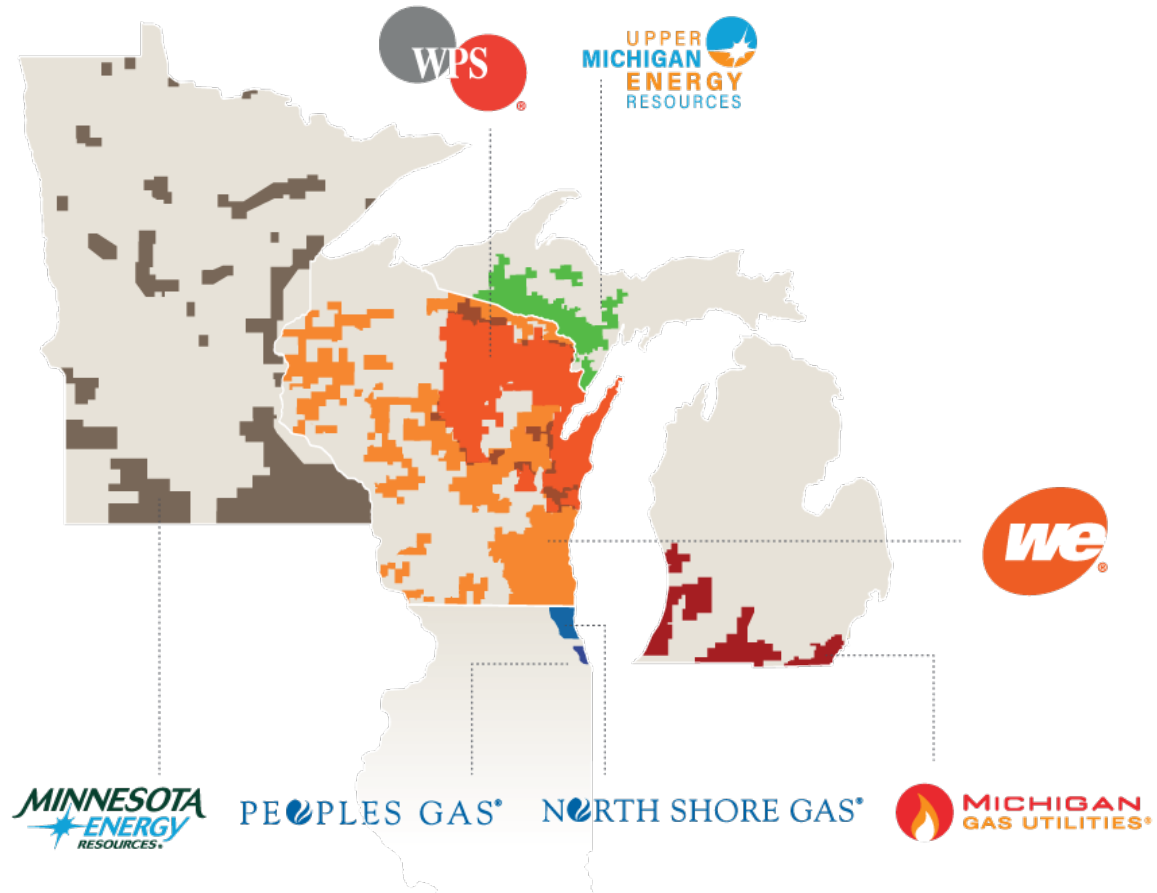
2.9 million natural gas customers

70,100 miles of electric distribution

49,000 miles of gas distribution

60% ownership of American  
Transmission Company

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# *Environmental Stewardship Goals*

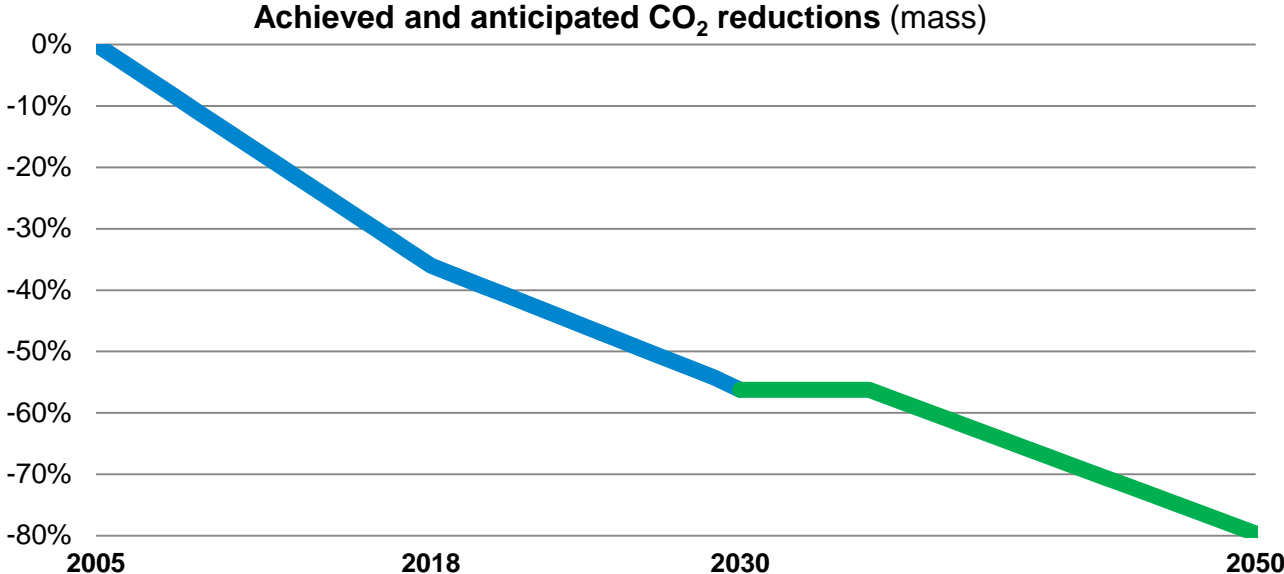
# Balancing reliability and customer cost with environmental stewardship

### Reshaping our generation includes:

- Retiring older fossil-fueled generating units – already more than 1,800 MW since 2017
- Investing in cost-effective zero-carbon generation
- Building state-of-the-art natural gas generation

### Resulting in:

- Reduced costs to customers
- Maintenance of fuel diversity
- Lower carbon emissions



### Reduction Goals:

**40%**  
below 2005  
levels by 2030

**80%**  
below 2005  
levels by 2050



# Executive Order - Clean Energy in Wisconsin

- On August 16, 2019, Governor Evers signed an executive order requesting the Department of Administration to:
  - Work with other agencies and the state's utilities to achieve a goal of ensuring all electricity consumed within the State of Wisconsin is 100% carbon-free by 2050
  - Ensure the State of Wisconsin is fulfilling the carbon reduction goals of the 2015 Paris Climate Accord



WEC Energy Group looks forward to continuing to work with Governor Evers along with other state leaders, environmental groups and customers to achieve our mutual goal of providing a clean energy future that is safe, reliable and affordable.

# Commitment to ESG Priorities and Reporting

View reports online at [www.wecenergygroup.com/csr](http://www.wecenergygroup.com/csr)

2018

June

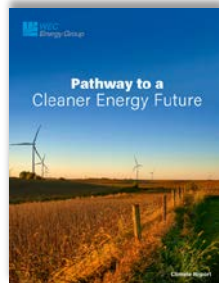
**Published** 2018 CDP Climate Report and 2018 CDP Water Report

August

**Published** EEI and AGA ESG/Sustainability Reporting Template

2019

April



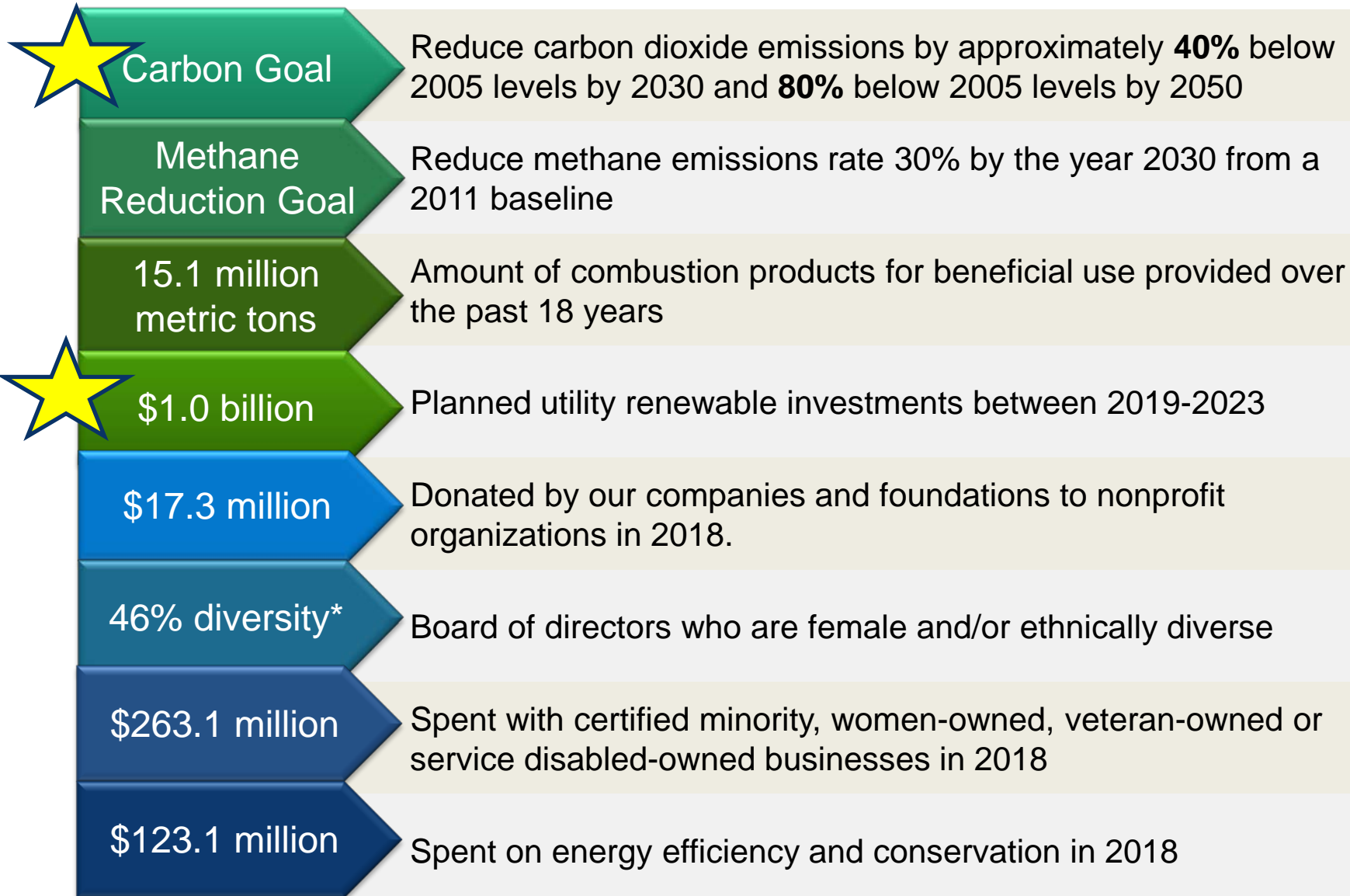
**Published** Climate Report: Pathway to a Cleaner Energy Future

July



**Published** 2018 Corporate Responsibility Report

# Environmental, Social & Governance Initiatives



\*Reflects board composition effective October 1, 2019

# *Wisconsin Generation Fleet Re-Shaping*

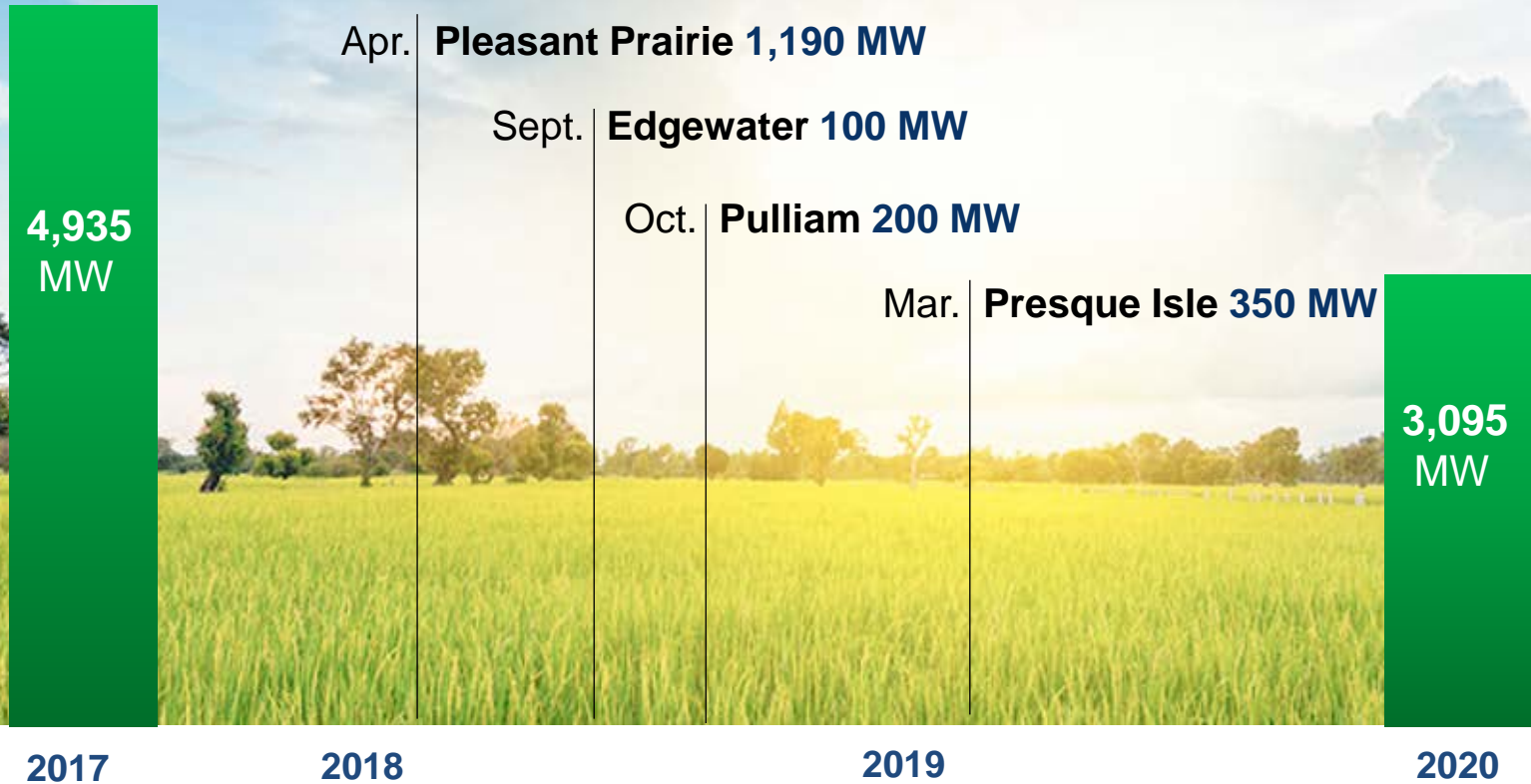
# Reshaping our Generation Fleet for a Clean, Reliable Future

- Reshaping our generation includes:
  - Retiring older fossil-fueled generating units
  - Investing in cost-effective zero-carbon generation



Coal-Fueled Generation Retirements

# Reducing Greenhouse Gas Emissions





# Investing in Renewable Generation



- We have announced plans for utility-scale investments.
- Customer Partnerships to advance renewable energy development in the state of Wisconsin.

# Investing in Renewable Generation



- Solar generation technology has improved in efficiency, become more cost-effective and complements our summer demand curve.
- Wisconsin Electric, Wisconsin Public Service and Madison Gas & Electric are partnering on major solar initiatives.
- Total of 300MW of generation capacity

Project	Utility	Location	Investment	Capacity**	Estimated Completion
Badger Hollow Solar Park	WPS	Iowa County, WI	\$130M	100MW	2020
Two Creeks Solar Project	WPS	Two Rivers, WI	\$130M	100MW	2020
Badger Hollow II Solar Park*	WE	Iowa County, WI	\$130M	100MW	2021

\*Filed for PSCW approval on August 1, 2019

\*\*Madison Gas & Electric will own an additional 50 MW at each site



# Renewable Energy Customer Partnerships



## Solar Now

- Distribution-connect solar facilities;
- Hosted by customers, for lease payment;
- 35 MW total program cap; 10 MW reserved for non-taxpaying entities
- Reduces fuel cost for all customers

## Dedicated Renewable Energy Resource Rider

- Participating customers partner with We Energies via subscription
- New, utility-scale, Wisconsin-based renewable projects
- 150 MW Available
- Participating customers pay full cost for term of service agreement
- Any renewable energy technology (wind or solar)



# *Other Renewable Energy Investments*

# Non-utility Renewable Investments



Project	Investment	Offtake Agreement	Capacity
Upstream Wind Energy Center	80% ownership	Affiliate of Allianz – 10-yrs	~200MW
Bishop Hill III Wind Energy Center	90% ownership	WPPI Energy – 22-yrs	~132MW
Coyote Ridge Wind Farm*	80% ownership	Google Energy – 12-yrs	~97MW
Thunderhead Wind Energy Center*	80% ownership	Fortune 100 company – Long-term agreement	~300MW

\*Closing projected at the end of 2019 for Coyote Ridge, and the end of 2020 for Thunderhead

81 GE wind turbines with  
a capacity of ~200 MW



## *Infrastructure Investment*

# Upstream Wind Energy Center

- Built by Invenergy and located in Antelope County, Nebraska
- 80% ownership interest
- 10-year offtake agreement with affiliate of an A-rated publicly traded company (Allianz)
- Transaction closed on January 10, 2019 - after commercial operation was achieved

53 GE wind turbines with  
a capacity of ~132 MW



## *Infrastructure Investment*

# **Bishop Hill III Wind Energy Center**

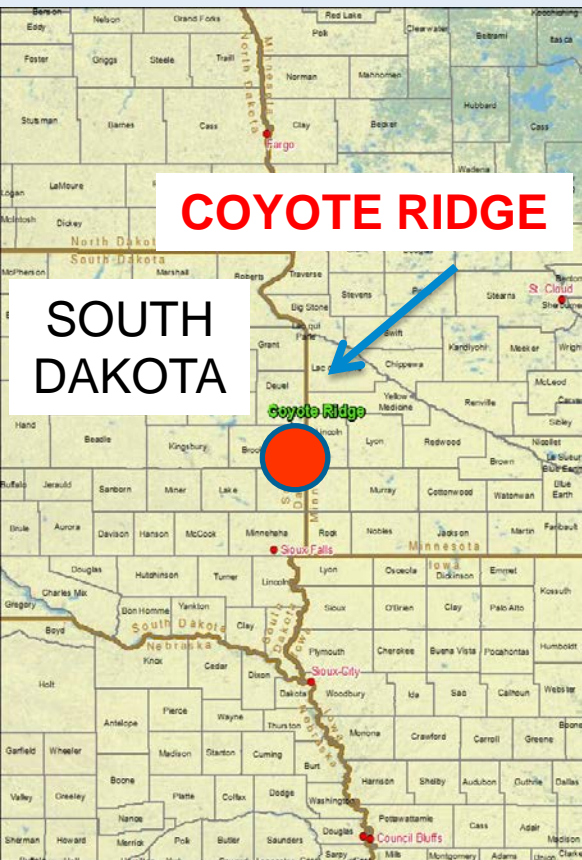
- Developed by Invenergy and placed into service in May 2018
- Located in Henry County, Illinois
- 90% ownership interest
- 22-year offtake agreement with a current wholesale customer, WPPI Energy
- Acquisition of the initial 80% interest closed on August 31, 2018
- Incremental 10% equity interest closed on December 5, 2018

## Infrastructure Investment

# Coyote Ridge Wind Farm

39 GE wind turbines with  
a capacity of ~97 MW

- Currently being built by Avangrid Renewables in Brookings County, South Dakota, within MISO footprint
- 80% ownership interest
- 12-year offtake agreement with Google Energy LLC for 100 percent of the energy produced
- Projected in service date: End of 2019





## *Infrastructure Investment*

# Thunderhead Wind Energy Center

108 GE wind turbines with  
a capacity of ~300MW

- Under development by Invenergy and located in Antelope and Wheeler Counties, Nebraska
- Projected in service date: End of 2020



*Questions?*