



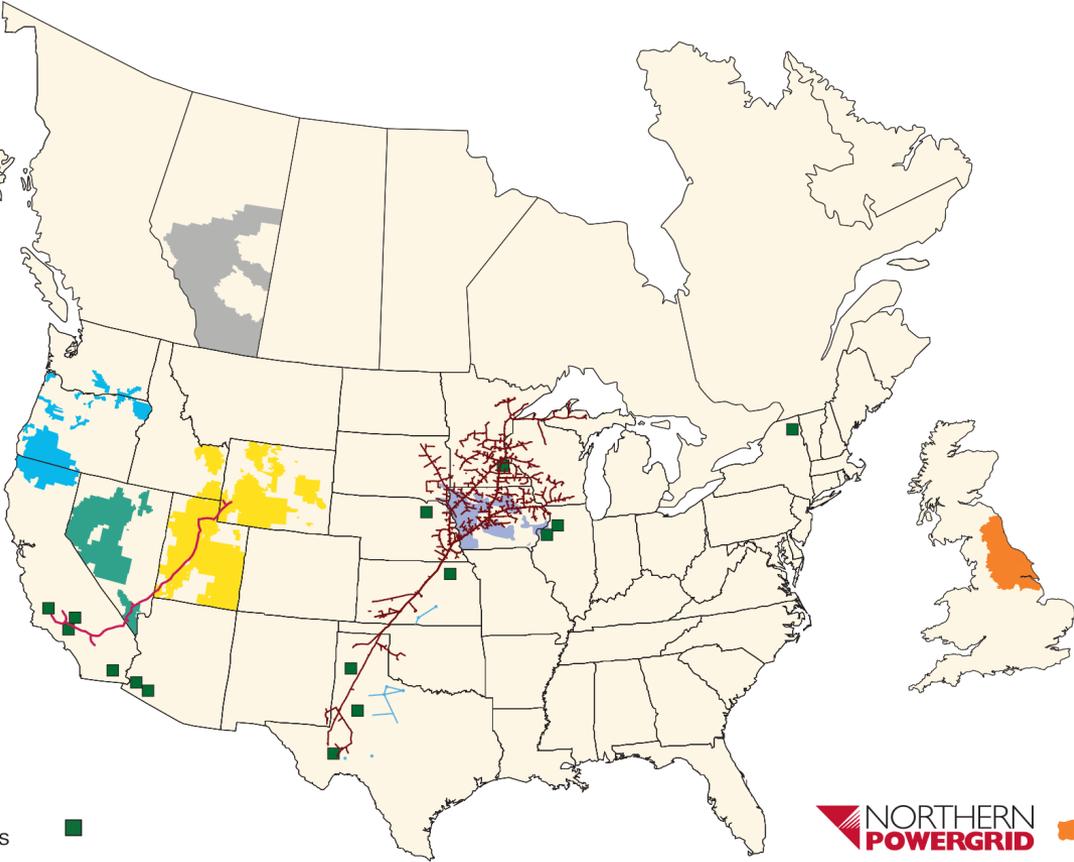
A Vision for the Future

Cathy S. Woollums

Sr. Vice President, Environmental & Chief Environmental Counsel



Berkshire Hathaway Energy



BHE
RENEWABLES

NORTHERN
POWERGRID

PACIFIC CORP

BHE
PIPELINE GROUP

PACIFIC POWER

NV Energy

Northern
Natural Gas

ALTALINK

ROCKY MOUNTAIN
POWER

MidAmerican
ENERGY.

Kern River
GAS TRANSMISSION COMPANY

BHE
U.S. TRANSMISSION



- 11.6 million customers worldwide
- Top-rated service provider within the industry



- 21,000 employees worldwide
- Incident rate 0.59; top 1% safety performance



- 39% energy generation renewable and noncarbon

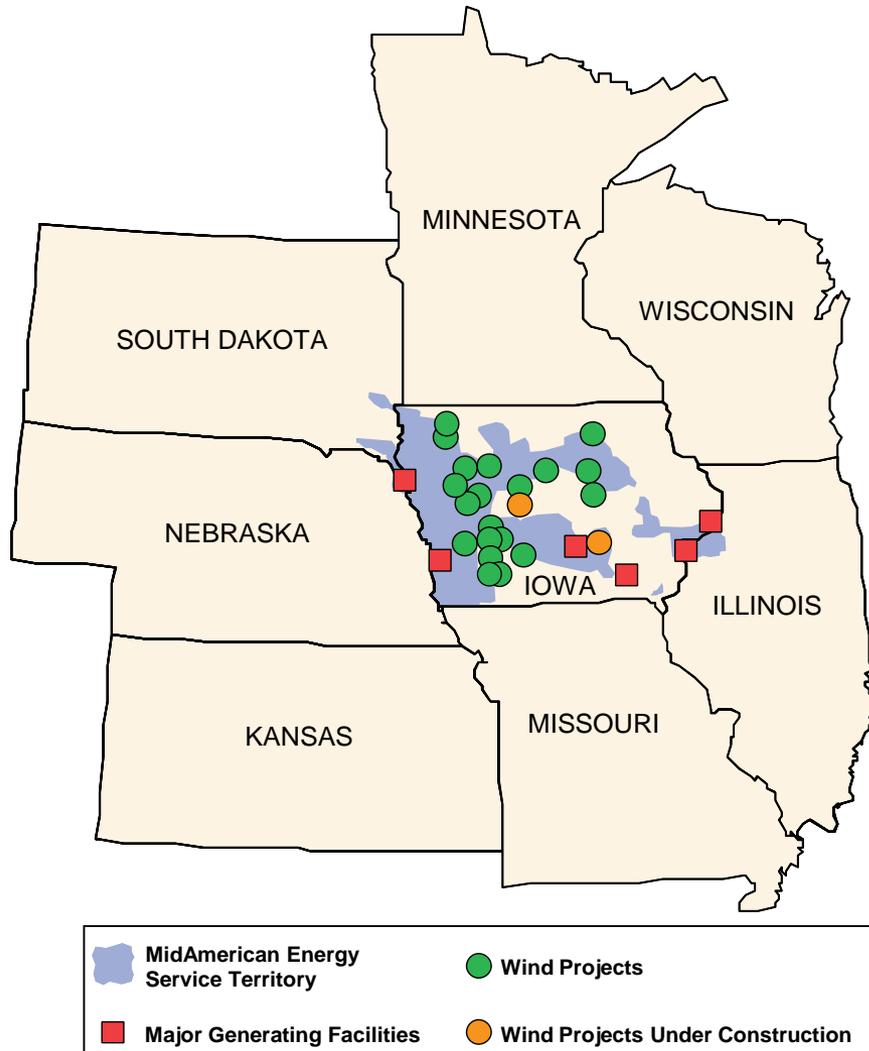


- Customer rates below national average



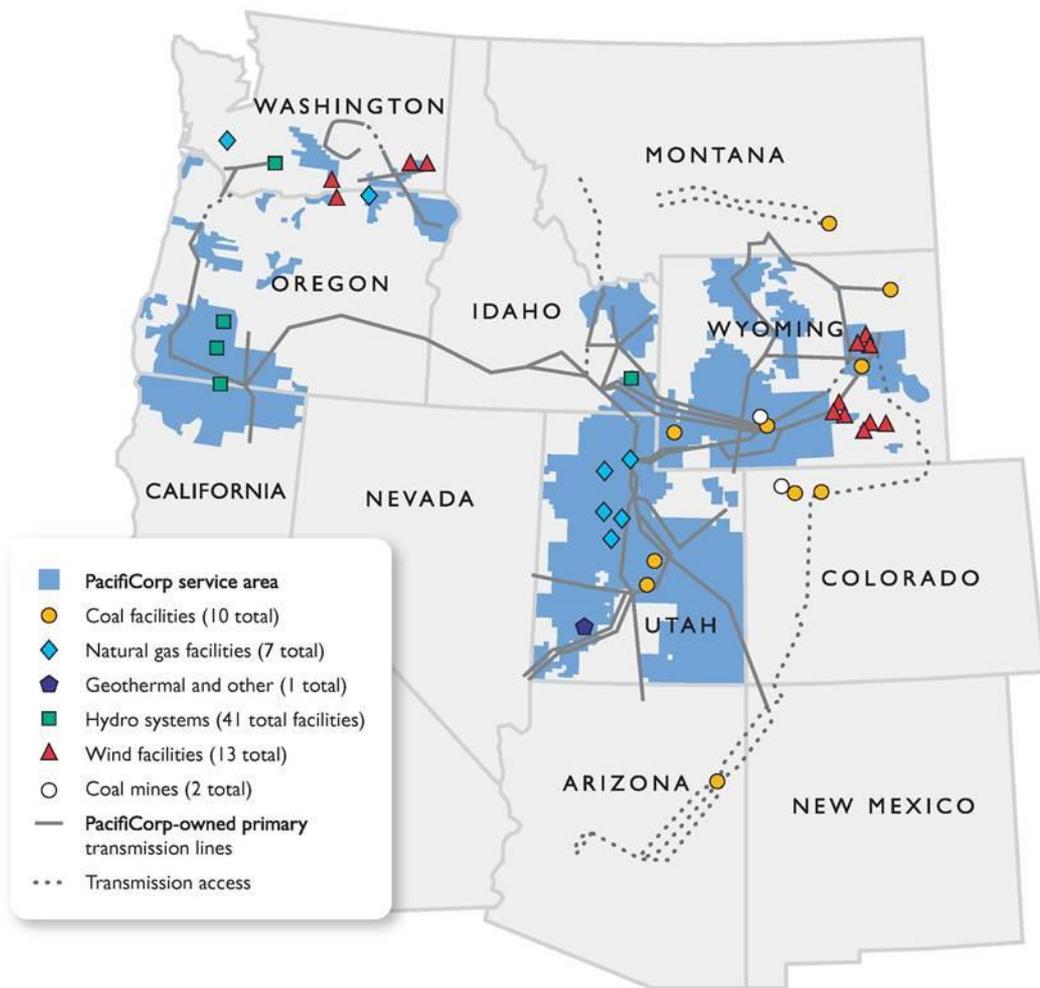
- \$85 billion of total assets
- 33,500 miles of electricity transmission lines
- 16,400 miles of natural gas pipeline

MidAmerican Energy Company



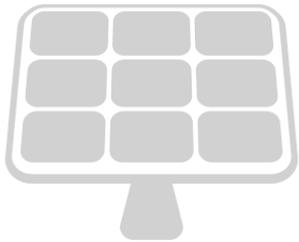
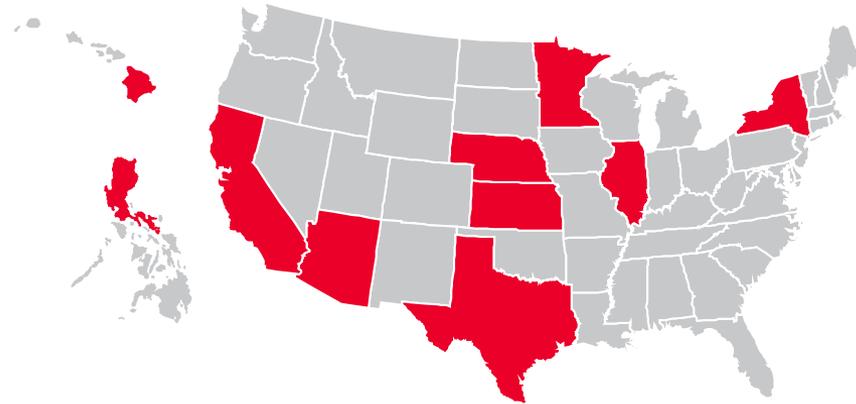
- Subsidiary of Berkshire Hathaway Energy
- Headquartered in Des Moines, Iowa
- 3,300 employees
- 1.5 million electric and natural gas customers in four Midwestern states
- Electric service territory in Illinois, Iowa, and South Dakota
- Gas service territory in Illinois, Iowa, Nebraska and South Dakota
- 8,701 MW of owned and contracted power capacity at the end of 2016

PacifiCorp's Diverse System



- Headquartered in Portland, Oregon and Salt Lake City, Utah
- 1.8 million retail customers in six states
- 5,700 employees
- 10,894 megawatts of generation in nine states
- 64,000 miles of distribution lines and 16,500 miles of transmission lines
- Geographic and climate diversity optimize system benefits

BHE Renewables



Solar

1,484 megawatt capacity*

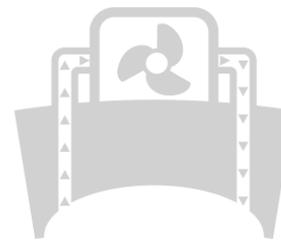
BHE Solar is an industry leader in solar energy generation and continues to develop its portfolio with noncarbon resources.



Wind

1,153 megawatt capacity

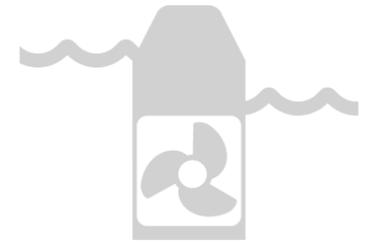
BHE Wind operates six unregulated wind-powered generation projects.



Geothermal

338 megawatt capacity

BHE Geothermal owns 10 geothermal facilities in California's Imperial Valley.



Hydro

138 megawatt capacity

BHE Hydro has the capacity to produce 138 megawatts of electricity; 10 megawatts are produced through the Wailuku hydroelectric facility in Hawaii, and 128 megawatts are produced through the Casecanan project located in the Philippines.

*Total contract capacity — owned and under construction.

Power Sector in Transition



- Electric loads are flat or declining
 - Decreasing needs for new generation
- Low natural gas prices
 - Influences costs of energy
 - Impacts markets
- Cost of renewables have decreased significantly
- Customer expectations are changing

Berkshire Hathaway Energy's focus –

- ✓ **Develop long-term, sustainable energy solutions**
- ✓ **Advance innovation, enhance efficiency and strengthen partnerships**

Iowa and Wind Energy



- In 1983 Iowa became the first state to establish a renewable portfolio standard, the standard remains the same today at 105 MW
- Senator Charles Grassley (R-IA) authored the production tax credit that was enacted as part of the Energy Policy Act of 1992
- With nearly 7 gigawatts of wind generation Iowa has more wind capacity than any state except Texas
- In 2016, Iowa became the first state to generate more than 35% of its total electricity from wind power
- Iowa's wind energy industry supports over 8,000 direct and indirect jobs
- Iowa has 11 wind-related manufacturing facilities
- Total investment in wind projects in Iowa is approximately \$13.5 billion
- Annual wind farm lease payments to Iowa landowners are estimated at \$20 to \$25 million

Why Iowa?



- Wind energy is an excellent complement to Iowa's agricultural industry, approximately ½ acre is converted from crop production to wind energy production per turbine
- Crop prices have been volatile, lease payments diversify and stabilize landowner income
- Many rural Iowa communities have declining populations and are generally welcoming of the significant new tax base and new local jobs
- Strong bipartisan support for wind energy in Iowa by current and previous governors, United State Senators, United States Representatives, state legislators and local officials from both parties
- Iowa Code Section 476.53 enacted during 2001 legislative session; allows Iowa Utilities Board to specify ratemaking principles in advance for certain new electric generation constructed by Iowa's rate-regulated public utilities
- Transmission access
- Excellent wind resource, especially in the western half of the state

MidAmerican Wind Overview



- MidAmerican Energy Company's dream is to become the first investor-owned electric utility in the U.S. to generate renewable energy equal to 100% of our retail sales on an annual basis
- MidAmerican's first wind project was placed into service in 2004
- \$6.7 billion invested in wind energy projects through 2016
- MidAmerican owns approximately 58% of the wind generating capacity in Iowa
- MidAmerican owns more wind generation capacity than any other rate regulated utility in the United States, approximately 5% of the total U.S. wind generating capacity
- We have transitioned our generation portfolio to be renewable while maintaining some of the lowest rates in the United States, approximately 34% below the national average

Why MidAmerican?



- Berkshire Hathaway ownership
 - Ensures ready access to capital
 - Allows us to take full advantage of the production tax credit, with benefits flowing back to our customers
 - Encourages long term planning horizon
- Customer preference – in a recent survey 91% of our customers expressed a preference for renewable energy
- Desire to maintain low electric rates
 - Mitigates risk of future environmental regulation compliance costs
 - Mitigates risk of increasing fuel costs
 - Prices need to be competitive as customers have an increasing number of options for electricity supply
- Part of Midcontinent Independent System Operator (MISO) market
 - MidAmerican's wind generation is integrated into a large portfolio across 15 states
 - Regional transmission projects allow increased transmission access

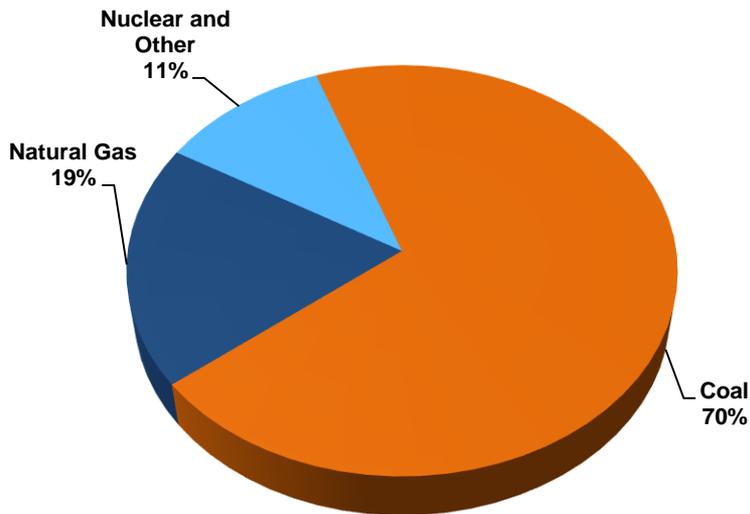
Wind Generation Through 2016



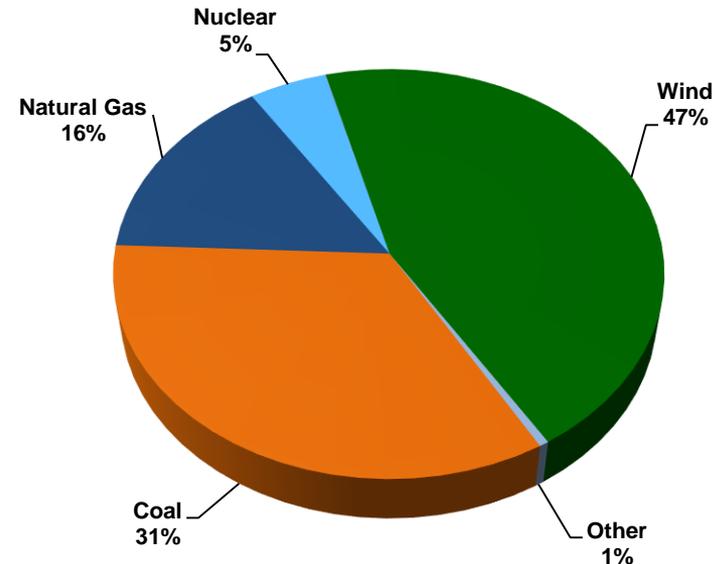
- MidAmerican Energy has 4,048.2 MW of wind generation capacity installed, representing 47% of our generating capacity
- MidAmerican Energy GreenAdvantage™ program allows customers to claim that 47% of the energy use in 2016 was from renewable sources

Nameplate Generation Capacity

Dec. 31, 2000



Dec. 31, 2016



Wind Generation with Wind XI

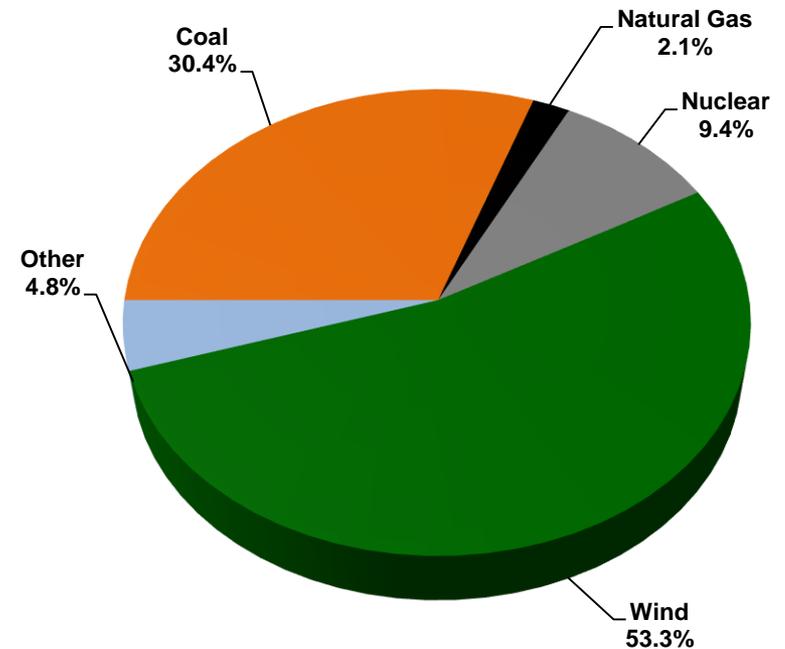


- In 2020 with Wind XI and repowering of some existing turbines, wind generation is expected to equal 95% of MidAmerican Energy Company's annual retail electric sales in Iowa and South Dakota

MidAmerican Energy Company Wind Generation with Wind XI & Repowering as a Percent of Retail Sales

2013 Actual	38%
2014 Actual	39%
2015 Actual	47%
2016 Actual	55%
2017 Plan	64%
2018 Plan	69%
2019 Plan	79%
2020 Plan	95%

2020 MEC Energy Production With Wind XI



MidAmerican's Wind XI



- Our current wind energy project, Wind XI, is the largest development project in Iowa's history
- We are completing the \$3.6 billion dollar Wind XI Project without requesting an increase in customer rates
- Construction of the Wind XI Project is underway and will include a total of 2,000 megawatts being placed into service in 2017, 2018 and 2019
- MidAmerican Energy Company will have 2,189 operating wind turbines with a combined capacity of 4,386 megawatts in 26 Iowa counties at end of 2017
- MidAmerican will add an additional 1,662 megawatts in 2018 and 2019 as part of our Wind XI Project
- Following completion of Wind XI and repowering, we expect our annual renewable energy generation to be equal to 95% of our Iowa customer's usage

Repowering Projects

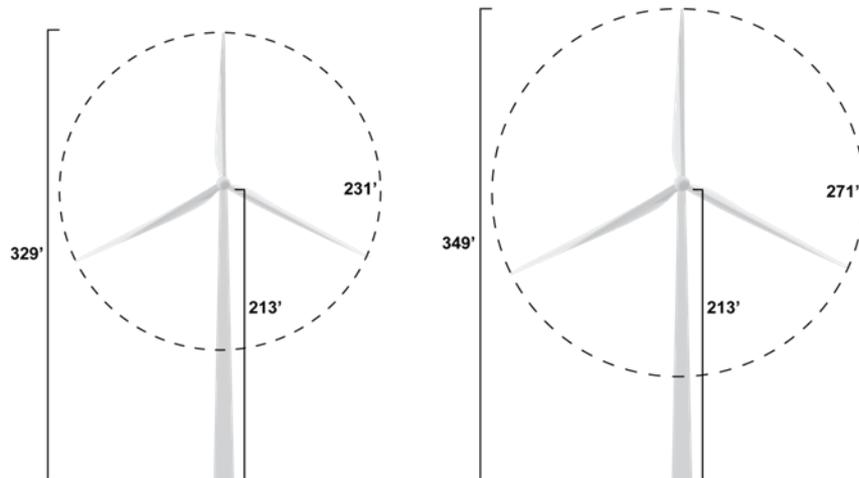


- MidAmerican plans to repower two models of General Electric turbines that were placed into service between 2004 and 2008
- 706 turbines with a combined nameplate capacity of 1,059 MW
- Total expected capital investment is approximately \$1.15 billion
- The turbines will have larger rotor diameters after repowering
- Capacity factors are expected to increase by 26% (S) and 19% (SLE)

GE 1.5-MW S-Type

Before Repower

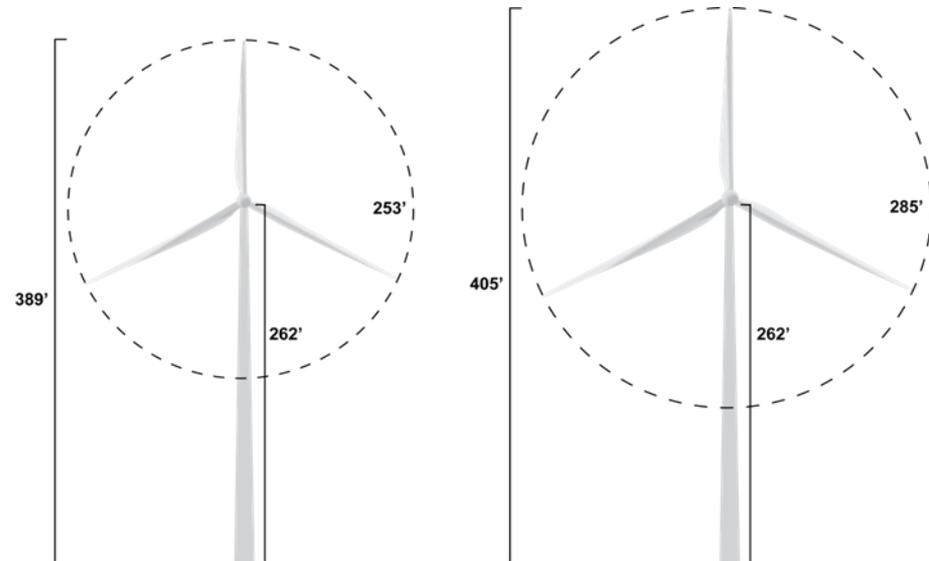
After Repower



GE 1.5-MW SLE-Type

Before Repower

After Repower



Good for Business and Good for the Environment



- Berkshire Hathaway Energy was the first utility to sign the American Business Act on Climate Pledge in July 2015
 - Build on investment of more than \$15 billion in renewable energy by investing up to an additional \$15 billion
 - Pursue construction of an addition 552 megawatts of new wind generation in Iowa, increasing MidAmerican Energy Company's generating portfolio to more than 4,000 megawatts of wind, comparable to 57% of its retail energy load in 2017
 - Retire more than 75% of our coal-fueled generating capacity in Nevada by 2019
 - Add more than 1,000 megawatts of incremental solar and wind capacity through long-term power purchase agreements to PacifiCorp's owned 1,030 megawatts of wind generating capacity, bringing non-carbon generating capacity to more than 4,500 megawatts
 - Invest in transmission infrastructure in the West and Midwest to support the integration of renewable energy onto the grid
 - Support and advance the development of markets in the West to optimize the electric grid, lower costs, enhance reliability and more effectively integrate renewable resources

State and Local Policies Matter



- California Renewable Portfolio Standard
 - 20% by 2010
 - 33% by 2020
 - 50% by 2030
- Oregon Clean Electricity and Coal Transition Law
 - Phases out coal from state rates by 2030 and increases the state's renewable portfolio standard to 50% by 2040
- City of Salt Lake – 100% renewable
- Wyoming's economy
 - Coal, gas, oil, wind
 - Mine-mouth electricity generating plants
- Energy Imbalance Market allow resources to be utilized more effectively and efficiently

PacifiCorp's Energy Vision 2020



- Invest \$3.5 billion by 2020 to:
 - Add at least 1,100 megawatts of new wind generation
 - “Repower” existing wind fleet with longer blades, newer technology
 - Build a new 140-mile Gateway West transmission segment in WY
- Federal production tax credits make projects economic option for customers
- Helps diversify rural economies, adds to tax base



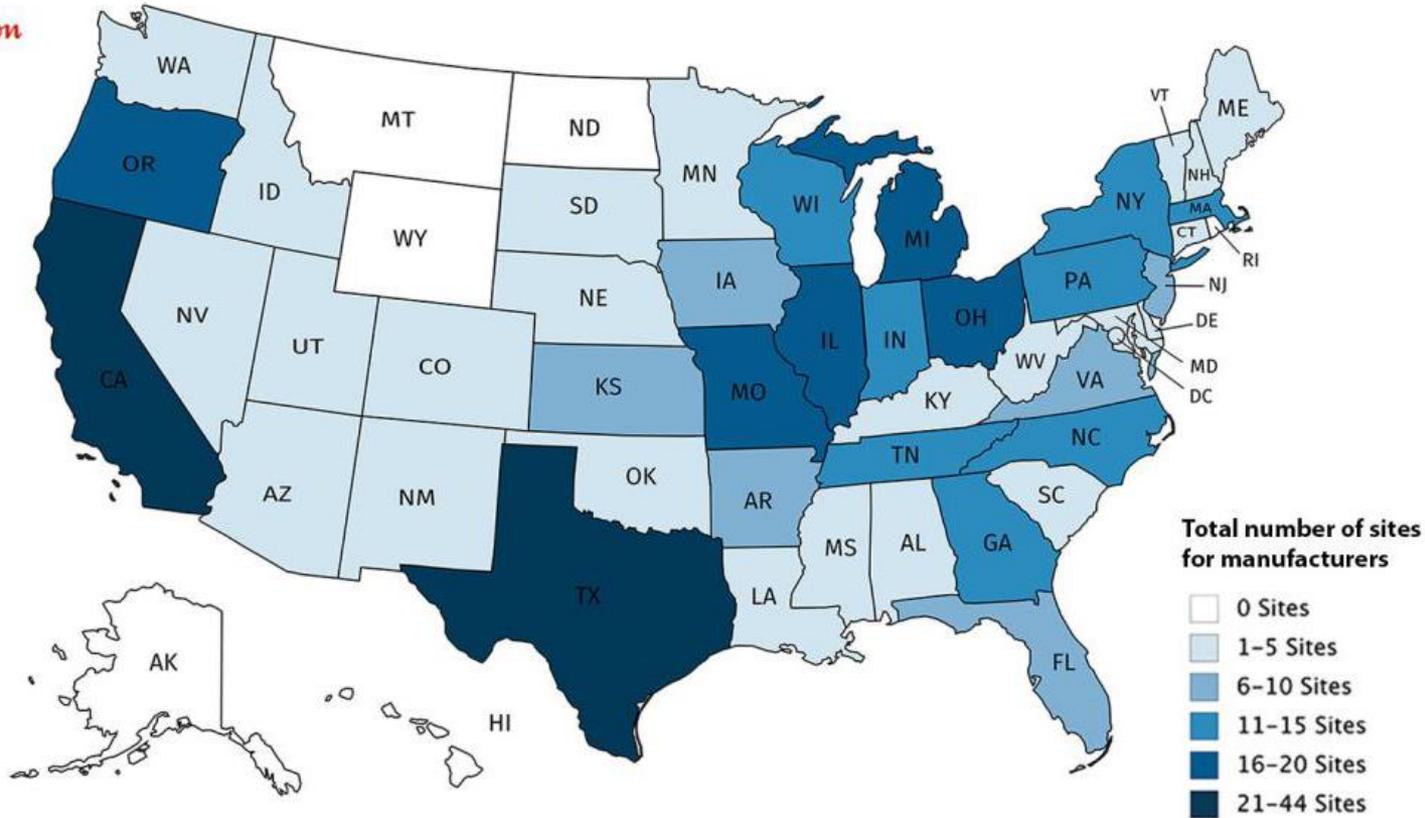
Energy Vision 2020 (cont'd)



- New wind generation:
 - Expand PacifiCorp's owned and contracted wind by 35 percent
 - Generate enough power for 400,000 average homes
- Repowering:
 - Upgrade 905 megawatts of existing company-owned wind
 - Increase energy production by 20 percent
 - Extend life of projects by 10 years
- Transmission:
 - 140-mile line in Southwest Wyoming
 - Connect additional wind generation
 - Relieve system bottlenecks



Manufacturers Committed to 100% Renewable Energy



Why Businesses Are Going Renewable



“Electricity costs are one of the largest components of our operating expenses at our data centers, and having a long-term stable cost of renewable power provides protection against price swings in energy.”



“We see it as a risk-mitigation strategy that will benefit Wells Fargo over time while neutralizing our carbon footprint, which benefits everyone.”



“Our vision is to establish a leading position in providing sustainable, renewable and affordable best practice solutions for the construction sector. It’s a substantial business opportunity.”

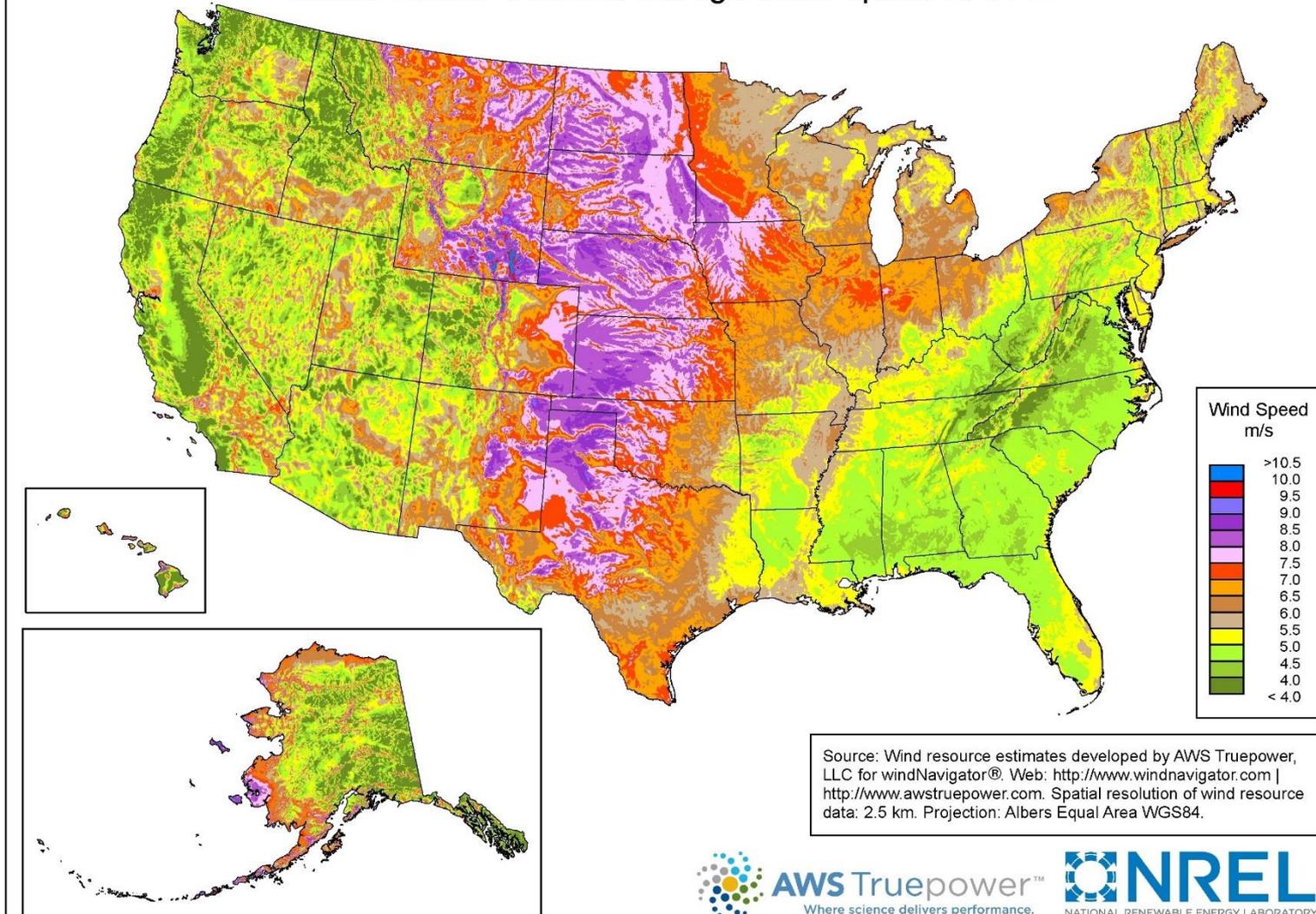


“It’s not only the right thing to do – it adds value to our business and drives innovation in our products and operations.”

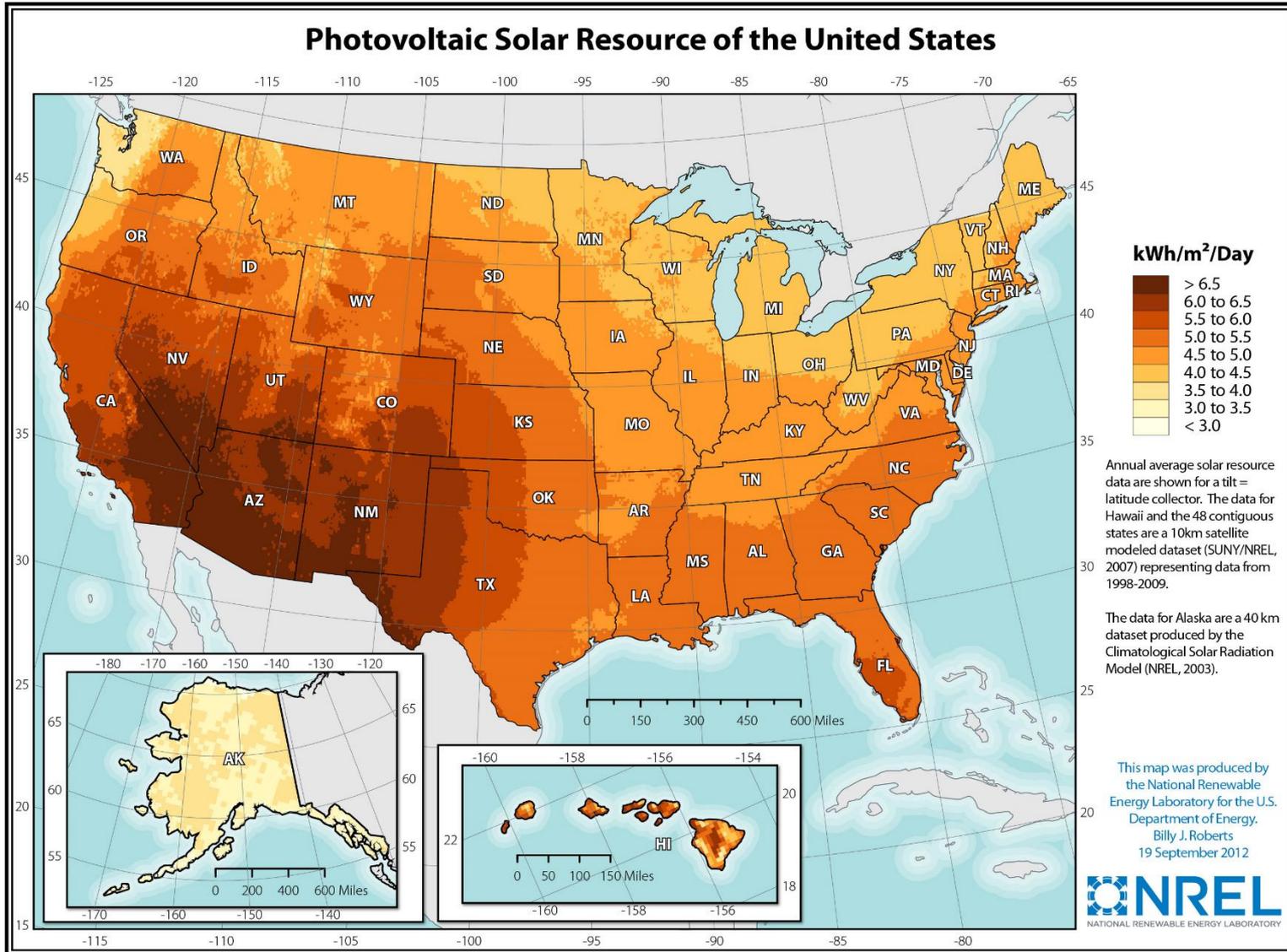
Wind Resource Map



United States - Annual Average Wind Speed at 80 m



United States Photovoltaic Solar Resource



Long-Term View



- We will continue to focus on delivering reliable, affordable safe and clean energy to our customers and on reducing our carbon footprint
- We will continue to engage in the international climate meetings
- We continue to fulfill our commitments under the American Business Act on Climate Change to advance the development of renewable energy and reduce fossil-fueled generation recognizing that accelerating the transition to a low-carbon economy is in our customers' interest and will produce multiple benefits with regard to sustainable economic growth, public health, resilience to natural disasters and the health of the global environment
 - Energy Vision 2020
 - Wind XI



 **BERKSHIRE HATHAWAY
ENERGY**