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Iowa Environmental Council

IOWA WIND ENERGY FACT SHEET

Updated: June 2022

IOWA IS A WIND ENERGY LEADER

- Iowa is a national leader in wind energy, producing the highest percentage of electricity by wind of any state – 57%. [1] Iowa now generates more electricity from wind than any other single source. [2]
- Iowa's total wind capacity is 12,219 MW and growing. [3] Iowa currently ranks second nationally in installed capacity. [4]
- Wind projects under construction, active development, and proposed will bring Iowa over 14,700 MW in the next few years. [5]
- MidAmerican Energy announced the addition of 2042 MW of wind to be completed by late 2024. [6]

WIND ENERGY IS GOOD FOR IOWA'S ECONOMY AND JOB MARKET

- The wind industry directly employed 3,953 Iowans in 2020, including manufacturing, operations and maintenance, and engineering professionals. [7]
- There are 53 Iowa companies in the wind industry supply chain. [8]
- Wind energy accounts for at least $22 billion in capital investment in Iowa. [9]
- Wind turbines generate $67 million annually in lease payments to landowners in Iowa. [10] These landowners are in rural Iowa and throughout much of the state.
- Google, Apple, and Facebook are among the companies that have identified the availability of low-cost Iowa wind energy as one of the reasons to locate new facilities in Iowa. [11]
- Wind provides significant property tax revenue to local governments. Wind projects contributed approximately $57 million in tax revenue in 2021. [12] MidAmerican's Prime project alone is estimated to generate $24 million annually in local property tax revenue and $960M over the life of the project. [13]
- Three examples of 2016 county property tax revenue from wind: Adair County received $5.9M, Cass County received $2.7M, and Franklin County received $3M. [14] This revenue supported schools, roads and bridges, hospitals, and more.
- Nationally, wind turbine service technicians are projected to be the fastest growing occupation in the 2019-2029 timeframe. [15]

WIND ENERGY IS AFFORDABLE ENERGY

- As wind energy grew from about 800 MW in 2005 to over 12,219 MW today, Iowa's electric rates remain below the national average. [16]
- New wind energy in Iowa is the cheapest new source of electricity generation, even without incentives, and is cheaper than new natural gas, nuclear, or coal. [17]
- New wind energy is now capable of competing on cost with existing conventional plants, including existing coal, gas, and nuclear. [18]
- Building more wind energy in Iowa will create substantial savings for Iowa customers in future years: Adding wind energy to bring Iowa to 20,000 MW of wind would save Iowa consumers $12.6 billion over 25 years with average annual savings of over $500 million. Average households would save $3,200 on electric bills during this time while average industrial customers would save $825,000. [19]

WIND ENERGY IS RELIABLE AND STABLE

- Effectively integrating renewable energy while maintaining grid reliability is already being achieved.
- Many studies "show that renewables can be integrated at high levels without significant issue" including the Renewable Energy Futures Study, the Western Wind and Solar Integration Study, the Wind Vision Study (all NREL) and the PJM Renewable Integration Study (GE). [20]

POTENTIAL FOR MORE WIND GROWTH

- Iowa installed more wind energy capacity in 2019 than in any previous year, at 1.7 GW. [21] Iowa continues to be capable of significant year-over-year growth.
- Iowa has enormous potential to add more wind generation, with estimates ranging from 280 GW to 571 GW depending on factors like technology and land area types used. [22]
- The wind energy production potential in Iowa is more than 20 times the total Iowa retail load in 2018. [23]
- Iowa needs to add between 20 GW and as much as 50 GW to reach 100% renewable energy by 2050. [24]
- The regional grid operator, MISO, is currently studying over 2,483 MW of wind projects proposing to interconnect in Iowa. [25]
- Just under half of Iowa's 99 counties still have little or no wind development.

SOURCES

1. Electricity data browser - Net generation for electric power (eia.gov) (accessed June 2022).
2. Id.
3. WINDExchange: U.S. Installed and Potential Wind Power Capacity and Generation (energy.gov).
4. Id.
5. Information provided to IEC by ACP. Also, MidAmerican Energy, Request for Approval of Ratemaking Principles, Iowa Utilities Board Docket No. RPU-2022-0001 (filed January 19, 2022).
6. Id.
7. Clean Jobs Midwest
8. ELPC, Iowa Wind Power & Solar Energy Supply Chain Businesses (2021 Update).
9. Information provided to IEC by ACP.
10. Id.
11. http://www.desmoinesregister.com/story/money/business/2014/04/03/facebook-google-green-wind-energy-greenpeace/7239627; https://www.radioiowa.com/2017/08/24/iowas-wind-power-paramount-to-apples-decision-on-new-data-centers/.
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13. MidAmerican Energy, Request for Approval of Ratemaking Principles, Iowa Utilities Board Docket No. RPU-2022-0001 (filed January 19, 2022).
14. Data from fiscal year 2015-2016, compiled by the Iowa Environmental Council.
15. Bureau of Labor Statistics, Fastest Growing Occupations (for years 2019-2029) at https://www.bls.gov/ooh/fastest-growing.htm.
16. U.S. Energy Information Administration, 1990-2019 Average Price by State by Provider, available at https://www.eia.gov/electricity/sales_revenue_price/. See also Iowa Policy Project, Iowa Rates Lower With Wind Growth (March 2017) at https://www.iowapolicyproject.org/2017docs/170330-windprices-bgd.pdf.
17. See Lazard, Levelized Cost of Energy Analysis – Version 15.0 (October 2021) at 2, available at Lazard's Levelized Cost of Energy Analysis—Version 15.0
18. Lazard, Levelized Cost of Energy at 7.
19. A Renewable America and AWEA, The Consumer Benefits of Wind Energy in Iowa (2016).
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21. WIND Exchange: U.S. Installed and Potential Wind Power Capacity and Generation (energy.gov)
22. Studies by DOE and NREL including 20% by 2030 Wind (2008); Wind Vision (2015); and Renewable Energy Futures (2012).
23. Iowa Environmental Council, Iowa's Road to 100% Renewable (2020).
24. Id.
25. Midcontinent Independent System Operator, Generator Interconnection Queue, at https://www.misoenergy.org/planning/generator-interconnection/GI_Queue/ (last accessed June 23, 2022).

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