

Iowa Solar Energy Fact Sheet

Solar energy in Iowa is growing

- Iowa ended 2016 with between 45 megawatts (MW) and 50 MW of installed solar capacity.¹
- Annual Iowa solar installations grew from 1.5 megawatts in 2012 to between 10 MW and 15 MW in 2014, 2015, and 2016.² Iowa should exceed 60 MW of installed solar capacity by the end of 2017.³
- 97 Iowa counties have solar projects installed that have benefited from the Iowa upfront solar tax credit through the end of 2016.⁴ This includes 2,524 projects and counting.
- Rural counties such as Washington County and Winneshiek County are solar hot spots with more solar installed than other counties in Iowa.⁵ Farmers and rural businesses are leading the use of solar in such areas.
- By the end of 2016, Iowa had more distributed solar installed than many other neighboring Midwest and Plains states.⁶

Solar energy strengthens Iowa's economy

- Iowa's workforce in the solar industry is growing. There are at least 600 jobs supported by the solar industry in Iowa.⁷
- There are at least 47 Iowa businesses involved in the solar energy supply chain.⁸
- Capital investments of over \$123 million are associated with solar projects that benefited from the Iowa solar tax credit alone, meaning the total capital investment in solar is substantially higher.

Solar energy costs are declining

- Costs have come down significantly in recent years. There has been a 64% decline in solar prices over five years according to the Solar Energy Industries Trade Association.⁹ Lazard recently reported that solar's levelized costs have declined by 85% over 7 years.¹⁰
- According to data provided by the Department of Revenue, average residential solar costs per kilowatt in 2014 were \$3,401, falling to \$2,928 in 2016. Average business solar costs per kilowatt were \$3,145 in 2014, falling to \$2,755 in 2016.¹¹

Utility solar and community solar are part of Iowa's solar successes

- Central Iowa Power Cooperative (CIPCO) is currently completing a 5.5 megawatt solar project, which will be sited at six locations at member cooperatives around Iowa.¹²
- Cedar Falls Utilities has built the largest community solar project in Iowa, at 1.5 MW.
- Farmers Electric has more solar per customer than any other utility in Iowa and one of the highest amounts of solar per customer of any utility in the U.S.¹³
- Alliant Energy is building the largest single solar project in Iowa, at 5 MW in Dubuque.

- Many municipal and cooperative utilities have developed or are developing solar projects supported by Iowa's 476C production tax credit, including 5 municipal utilities (7.25 MW) and 12 electric coops (3.6 MW).

Iowa has the potential to be a solar leader

- Iowa ranks 16th among U.S. states in the technical potential for solar energy production. This puts Iowa ahead of states such as Florida, Georgia, Missouri, North Carolina and South Carolina.¹⁴
- Iowa has the potential to build enough solar PV to meet annual electric needs by more than 150 times over.¹⁵
- The Solar Energy Industries Association projects that Iowa will add 221 MW of solar capacity over the next 5 years with a mix of residential, commercial/agricultural, and utility installations.¹⁶
- Alliant Energy recently filed testimony with projected solar installations that could reach 600 MW to 700 MW over its near or mid-term planning horizon.¹⁷

¹Iowa Environmental Council estimates based on data available from the Energy Information Administration, Solar Energy Industries Association, Iowa Department of Revenue, and Iowa Utilities Board. The Iowa solar tax credit supported over 29 MW between 2014-2016 alone, with additional capacity not reported in 2012-2013 (no data collected on capacity) and 2016 (incomplete reporting given timing of annual report); Iowa's 476C program supported at least 4.3 MW through 2016. Tax incentive projects should total 40-45 MW. Additional projects not eligible for Iowa tax incentives or not using tax incentives would bring the total to 50 MW by year-end 2016.

² Iowa Environmental Council estimates based on data available from the Energy Information Administration, Solar Energy Industries Association, Iowa Department of Revenue, and Iowa Utilities Board.

³ *Id.*

⁴ Iowa Department of Revenue, *Solar Energy System Tax Credit Annual Report for 2016* (revised January 4, 2017).

⁵ *Id.* at Figure 1, p. 5.

⁶ EIA, *Electric Power Monthly*, Table 6.2B Net Summer Capacity Using Primarily Renewable Energy Sources by State (data from December 2016) at <http://www.eia.gov/electricity/monthly/?scr=email>. Iowa's 41.8 MW of reported distributed solar was higher than distributed solar totals in Illinois, Indiana, Wisconsin, Minnesota, Nebraska, Kansas, North Dakota and South Dakota.

⁷ Clean Energy Trust et al, *Clean Jobs Midwest: Iowa* at <http://www.cleanjobsmidwest.com/story/iowa>.

⁸ ELPC, *Iowa Wind Power & Solar Energy Supply Chain Businesses* (2015).

⁹ Solar Energy Industries Association, *Solar Spotlight: Iowa* available at <http://www.seia.org/state-solar-policy/iowa>.

¹⁰ Lazard, *Levelized Cost of Energy Analysis – Version 10.0* (December 2016) at <https://www.lazard.com/media/438038/levelized-cost-of-energy-v100.pdf>.

¹¹ Iowa Department of Revenue, *Solar Energy System Tax Credit Annual Report for 2016* (revised January 4, 2017), pages 6-7.

¹² Central Iowa Power Cooperative, *CIPCO launches Iowa's largest utility based solar project* (March 2016) at <http://www.cipco.net/content/cipco-launches-iowas-largest-utility-based-solar-project>.

¹³ See, e.g., Farmers Electric Cooperative, *Our Renewable Energy Story* at <http://www.feckalona.net/renewable-energy-story.html>.

¹⁴ Iowa Environmental Council, *Real Potential, Ready Today: Solar Energy in Iowa*.

¹⁵ *Id.*

¹⁶ Solar Energy Industries Association, *Solar Spotlight: Iowa*.

¹⁷ Iowa Utilities Board Docket No. EPB-2016-0150, Rebuttal Testimony of Brent R. Kitchen (filed May 4, 2017) at 5 and 13.