

First in-depth look at solar project completion timelines

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The Energy Department's National Renewable Energy Laboratory (NREL) has gathered and analyzed data for more than 30,000 solar photovoltaic (PV) installations across the United States to better understand how interconnection regulations align with actual project completion timelines. The findings indicate that interconnection process delays are common, and can range from several days to months. Streamlining the application review and final authorization processes can ultimately benefit utilities and solar consumers by reducing the time and cost associated with going solar.

"We now have a clearer understanding of the different process elements associated with connecting a PV system to the grid, such as how long it takes to review and approve an application for interconnection, how long it takes to construct and inspect a system, and how long it takes to get final authorization from the utility," said the report's lead author, Kristen Ardani, a solar technology markets and policy analyst at NREL. "This report represents the first data-driven evaluation of how PV deployment time frames compare to state regulations in key solar markets."

The authors of the report, "Understanding Processes and Timelines for Distributed Photovoltaic Interconnection in the United States," examined PV project data across 87 utility territories and 16 states. NREL found that for the residential and small commercial (less than 50 kilowatts) systems sampled, it took an average of 63 total business days (median 53) from the date a PV installer submits an interconnection application to when the utility grants permission to operate. However, there is wide



variation around these values, ranging from less than one week to more than six months. System construction represents the fastest part of the process, taking an average of four business days (median two days). Interconnection application review and approval accounted for the most time of any single process examined in this analysis, requiring an average of 27 business days (median of 18 days) to complete.

The report also provides state-level findings based on an analysis of five states with active solar markets-Arizona, California, Colorado, New Jersey, and New York. The research suggests that states with more stringent interconnection time frame regulations might reduce overall project length. However, such regulations do not necessarily limit time frames to the targets specified by interconnection standards. Additional insights on the research effort and report findings are available through a <u>STAT Chat podcast</u> and an <u>educational webinar</u>.

The impetus and data for this project were identified through stakeholder discussions facilitated through the Distributed Generation Interconnection Collaborative (DGIC), a working-group consortium of more than 100 members. NREL facilitates the DGIC with support from the Solar Electric Power Association (SEPA), the Electric Power Research Institute (EPRI), and the Western Area Power Administration (WAPA) to foster knowledge sharing on distributed PV <u>interconnection</u> practices, research, and innovation.

This body of work is supported by the Energy Department's SunShot Initiative, which is a national effort to make solar energy costcompetitive with traditional energy sources by the end of the decade. Through SunShot, the Energy Department supports private companies, universities, and national laboratories working to drive down the cost of solar electricity to \$0.06 per kilowatt-hour. Learn more at energy.gov/sunshot.



More information: "A State-Level Comparison of Processes and Timelines for Distributed Photovoltaic Interconnection in the United States." <u>www.nrel.gov/docs/fy15osti/63556.pdf</u>

Provided by National Renewable Energy Laboratory

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