

Solar Lab Collaborative Showcase on August 4

National Renewable Energy Laboratory

One-of-a-kind platforms that have the ability to bridge the gap between photovoltaic (PV) module and cell efficiencies are opening their stainless steel arms to industry, academia, stakeholders, and other entities on Aug. 4 at a Collaborative Showcase at the Process Development Integration Laboratory (PDIL) at the U.S. Department of Energy's National Renewable Energy Laboratory (NREL).

NREL's PDIL is now fully operational and is a unique facility for testing, measuring, and processing solar cells to maximize the research benefits and minimize the technology development risks. NREL wants stakeholders from industry, academia and other entities to see the new photovoltaic lab and discuss ways to work together to use its capabilities.

During the Collaborative Showcase, which begins at 1:30 pm on August 4 and ends at 5:30 pm, stakeholders from industry, academia, and other entities will have the opportunity to talk one-on-one with NREL's principal investigators.

Shuttle vans and buses will take participants from NREL's Visitors Center to the PDIL at 1:30, 2:30, 3:30, and 4:30 p.m.

Registration deadline is July 27.

[Register for the PDIL Collaborative Showcase](#) [1]

There are platforms devoted to processing techniques for silicon and thin-film technologies, measurements and characterization, and atmospheric processing.

The DOE SunShot Initiative aims to make large scale solar energy systems cost competitive without subsidies by the end of the decade. The PDIL can play an important part by bringing transformative lab-like precision to industrial-type processes to the domestic PV industry that can dramatically reduce solar system costs to meet the SunShot goals.

Businesses that collaborate with NREL researchers in the PDIL can integrate their tools and techniques to the central platforms and discover how their newest designs fare and how novel processes might bolster the power of their cells.

Scientists simulate the processes industry will use in the PDIL. This includes equipment that accommodates 6-inch PV cells, a standard size used by industry. The goal is to answer previously unanswerable research questions, while controlling and characterizing the surfaces of the cells, developing new techniques and devising new structures. This can shorten the time to commercial production and reduce a company's technology risk.

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The ultra-high vacuum environment allows scientists to study the role of impurities and defects, as well as what happens when the materials are deposited at the fast rate demanded by industry. Analytical tools can be developed on site to test new cell designs and to test for quality.

[Learn more about the PDIL, including a video showing how it operates.](#)

[2]

NREL is the Department of Energy's primary national laboratory for renewable energy and energy efficiency research and development. NREL is operated for DOE by The Alliance for Sustainable Energy, LLC.

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[2] <http://www.nrel.gov/pv/pdil/>

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