

### SUMMARY

This report summarizes the key Fiscal Year 2019 (FY19) outreach metrics for the NREL Solar Data, Analysis, and Tools (DAT) portfolio. All metrics herein reflect the reporting period of Oct. 1, 2018, through Sept. 30, 2019. These projects are all supported by the U.S. Department of Energy Solar Energy Technologies Office Soft Costs program.

### HIGHLIGHTS

**5 OUT OF 10**

Of the most downloaded reports for all of NREL in FY19 came from the Solar DAT portfolio

**83,000+** Webpage views across Solar DAT, DGIC, & Solar Prize websites

**81,000+** Publication downloads

**8,500+** Newsletter subscribers

### TOP 10 NREL SOLAR DAT PUBLICATIONS

NREL's Solar DAT portfolio produced 82 publications in FY19, including 30 technical reports, 9 journal articles, 10 conference papers, 14 fact sheets, and 19 presentations. The table below quantifies the reach of the 10 most downloaded technical reports published in FY19. The aggregate numbers shown are for Q1–Q4 of FY19.

OUTPUTS		OUTCOMES	
TITLE	PUBLICATION DATE	DOWNLOADS	OVERALL NREL FY19 RANKING
<i>2018 U.S. Utility-Scale Photovoltaics-Plus-Energy Storage System Costs Benchmark</i> (Fu et al.)	November 2018	17,795	1
<i>U.S. Solar Photovoltaic System Cost Benchmark: Q1 2018</i> (Fu et al.)	November 2018	17,600	2
<i>Q3/Q4 2018 Solar Industry Update</i> (Feldman et al.)	October 2018	5,249	4
<i>U.S. Solar Photovoltaic System Cost Benchmark: Q1 2018</i> (Fu et al.)	October 2018	3,779	7
<i>Q4 2018/Q1 2019 Solar Industry Update</i> (Feldman & Margolis)	May 2019	3,338	10
<i>Expanding PV Value: Lessons Learned from Utility-Led Distributed Energy Resource Aggregation in the United States</i> (Cook et al.)	November 2018	3,241	13
<i>An Overview of Distributed Energy Resource (DER) Interconnection: Current Practices and Emerging Solutions</i> (Horowitz et al.)	April 2019	2,710	15
<i>Community Choice Aggregation: Challenges, Opportunities, and Impacts on Renewable Energy Markets</i> (O'Shaughnessy et al.)	February 2019	2,662	16
<i>Terms, Trends, and Insights on PV Project Finance in the United States, 2018</i> (Feldman & Schwabe)	November 2018	2,028	18
<i>2018 U.S. Utility-Scale Photovoltaics-Plus-Energy Storage System Costs Benchmark</i> (Fu et al.)	October 2018	1,994	18

### MAJOR EFFORTS IN FY19

#### SOLAR ENERGY INNOVATION NETWORK

- 46 organizations in the first-round cohorts
- 2 working sessions in FY19
- 150+ people representing 60+ organizations from 25 states attended the Round 1 Symposium, which recapped the work of Round 1 teams
- 2,122 views of the project overview video
- Published a new Round 1 Recap Video in FY19 (with 300 views so far)



#### SOLAR DISTRICT CUP

- Collegiate competition launched in April 2019
- 61 participating student teams from 54 collegiate institutions

# MAJOR EFFORTS IN FY19 CONTINUED

## AMERICAN-MADE SOLAR PRIZE

- Round 1 launched February 2018 and completed September 2019
- Round 2 launched March 2019 and is ongoing
- Hosted 5 informational webinars in FY19 with 369 attendees and 795 after-the-fact views

### Round 1

- 975 followers on HeroX competition platform
- 204 submissions
- \$3 million in cash prizes awarded, plus \$900,000 in vouchers for national lab and facility support

### Round 2

- 478 followers on HeroX competition platform
- 201 submissions
- \$1 million in cash prizes awarded so far



Top: Solar Inventions and Phase 3 Photovoltaics celebrate their Solar Prize win at SPI 2019

Bottom: The Solar Prize was featured in Solar Today's summer 2019 issue.

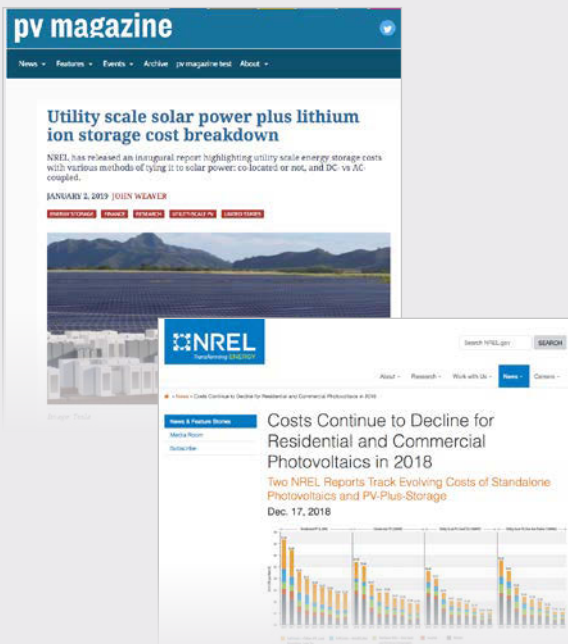


## PUBLICATION HIGHLIGHT

### PV AND PV-PLUS-STORAGE BENCHMARK REPORTS

#### PUBLISHED NOVEMBER 2019

- 35,395 downloads
- 6,374 views of NREL news story (Average Time on Page over 5 minutes)
- 5 tracked media pick-ups



## FEATURE STORY HIGHLIGHT

### BENEATH SOLAR PANELS, THE SEEDS OF OPPORTUNITY SPROUT

#### THIS MULTIMEDIA FEATURE STORY WAS PUBLISHED ON NREL.GOV IN APRIL 2019 ABOUT THE IN-PROGRESS INSPIRE PROJECT

- 4,769 views of this feature story (Average Time on Page over 5 minutes)
- 6 tracked media pick-ups about the InSPIRE project in the following month, including *Scientific American*, *Ars Technica*, *Utility Dive*, and an Idaho NPR station



# ELECTRONIC OUTREACH TOOLS IN FY19

## NREL SOLAR MARKET RESEARCH & ANALYSIS E-BLAST

- 8,497 subscribers
- 13.4% average open rate, 1.3% average click rate  
*The industry standard for government is an 11.5% open rate and 1.2% click rate*
- 7 eblasts sent in FY19:
  - *Apply for Round 2 of the Solar Energy Innovation Network*
  - *NREL is Seeking Big Ideas for Rural or Commercial-Scale Solar*
  - *DOE Prize Demonstrates New Ways of Bringing Solar to Underserved Markets*
  - *A Broad Look at Today's DER Interconnection Landscape*
  - *Examining Potential Barriers to Community Solar*
  - *Two NREL Reports Track Evolving Costs of Standalone Photovoltaics and PV-Plus-Storage*
  - *Study of Utility Data Suggests Pre-Application Reports Could Boost Interconnection Approval Rates*

## NREL SOLAR DAT WEBSITE

- 52,400+ total unique website views (vs. 28,000 in FY18)
- 6,300+ unique homepage views
- Added a new section on Advanced Hosting Capacity Analysis
- Added a new section to NREL's Energy Analysis subsite for Solar Technology Cost Analysis



**Solar Market Research and Analysis**

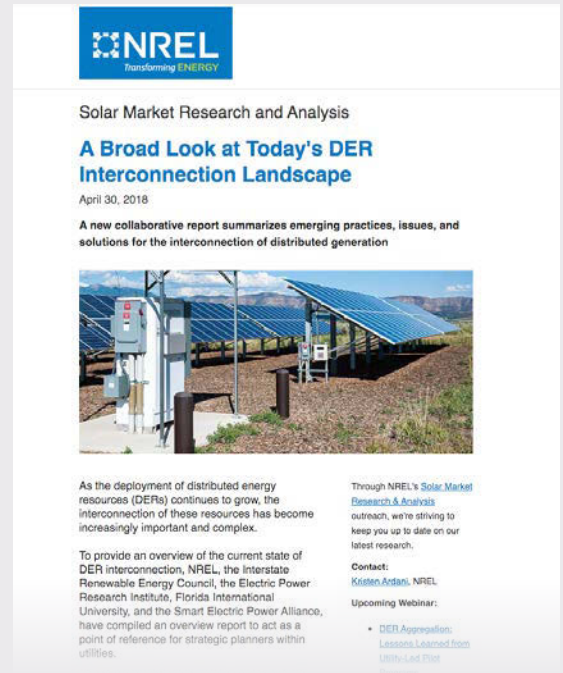
Through rigorous data collection, analysis, and stakeholder engagement, NREL's Solar Market Research and Analysis efforts further solar technologies' role in supporting a more efficient and better performing U.S. electricity system. This cross-cutting set of activities leverages NREL's unique analytical capabilities.

Key areas for NREL's solar market research and analysis portfolio include the following:

- Projects and Publications**  
Solar market research and analysis efforts at NREL seek to further solar technologies' role in supporting a more efficient and better performing U.S. electricity system. Learn more about several of these projects on the [Projects page](#).
- Decision Support**  
Learn about NREL's new [Solar Energy Innovation Network](#), as well as the [Solar Technical Assistance Team](#), which gathers NREL solar technology and deployment experts to provide unbiased information on solar policies and issues for state and local government decision makers.

[www.nrel.gov/solar/market-research-analysis.html](http://www.nrel.gov/solar/market-research-analysis.html)

## EXAMPLES OF SOLAR DAT EBLASTS




**Solar Market Research and Analysis**

### A Broad Look at Today's DER Interconnection Landscape

April 30, 2018

A new collaborative report summarizes emerging practices, issues, and solutions for the interconnection of distributed generation



As the deployment of distributed energy resources (DERs) continues to grow, the interconnection of these resources has become increasingly important and complex.

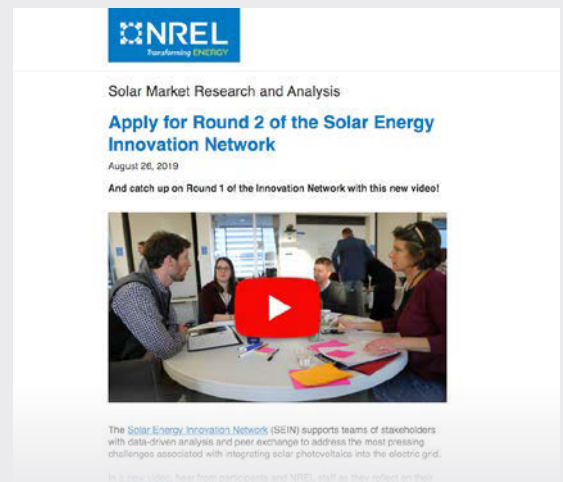
To provide an overview of the current state of DER interconnection, NREL, the Interstate Renewable Energy Council, the Electric Power Research Institute, Florida International University, and the Smart Electric Power Alliance, have compiled an overview report to act as a point of reference for strategic planners within utilities.

Through NREL's [Solar Market Research & Analysis](#) outreach, we're striving to keep you up to date on our latest research.

Contact:  
[Kristen Andani](#), NREL

Upcoming Webinar:

- [DER Aggregation: Lessons Learned from Utility-Led Pilot Programs](#)




**Solar Market Research and Analysis**

### Apply for Round 2 of the Solar Energy Innovation Network

August 26, 2019

And catch up on Round 1 of the Innovation Network with this new video!



The [Solar Energy Innovation Network \(SEIN\)](#) supports teams of stakeholders with data-driven analysis and peer exchange to address the most pressing challenges associated with integrating solar photovoltaics into the electric grid.

In a new video, hear from participants and NREL staff as they reflect on their

## OTHER OUTREACH CHANNELS

- DOE SETO newsletter
- NREL social media
- Partner newsletters and social media (e.g., RMI)

# KEY MEDIA MENTIONS

- “PV Cities Training Program Powers Solar Adoption across America’s Cities and Counties,” Solar Today (ASES Magazine), Winter 2018 Issue
- “NREL Finds Common Challenges for US Utility DER Integration Pilots,” Greentech Media, December 7, 2018
- “Everyone Loves a Guaranteed Discount: New Financing Approach Drives Community Solar Growth,” Utility Dive, August 15, 2019
- “Floating Solar Offers Unique Bargains — U.S. Utilities Are Missing Out,” Utility Dive, April 4, 2019



# REVIEW OF PREVIOUS YEARS' OUTREACH HIGHLIGHTS

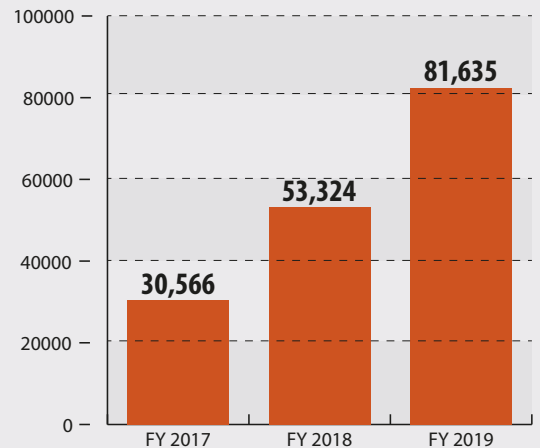
## TOP THREE PUBLICATIONS FOR FY17

- *Installed Cost Benchmarks and Deployment Barriers for Residential Solar Photovoltaics with Energy Storage: Q1 2016* (Ardani et al., February 2017): 6,996 downloads
- *Best Practices in Photovoltaic System Operations and Maintenance: 2nd Edition* (NREL/Sandia/Sunspec Alliance SuNLaMP PV O&M Working Group, December 2016): 4,097 downloads
- *Q3/Q4 2016 Solar Industry Update* (Feldman et al., January 2017): 3,621 downloads

## TOP THREE PUBLICATIONS FOR FY18

- *Cost-Reduction Roadmap for Residential Solar Photovoltaics (PV), 2017–2030* (Ardani et al., January 2018): 14,869 downloads
- *Status and Trends in the U.S. Voluntary Green Power Market (2016 Data)* (O'Shaughnessy et al., October 2017): 7,425 downloads
- *Unlocking Solar for Low- and Moderate-Income Residents: A Matrix of Financing Options by Resident, Provider, and Housing Type* (Cook et al., January 2018): 3,881 downloads

## AGGREGATE PUBLICATION DOWNLOADS



National Renewable Energy Laboratory  
 15013 Denver West Parkway, Golden, CO 80401  
 303-275-3000 • www.nrel.gov

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