



UTILITY SOLAR RANKINGS



SEPA

solar electric power association

2011 SEPA Top 10 Utility Solar Rankings

The Solar Electric Power Association's (SEPA) fifth annual Utility Solar Rankings analyzes the amount of new solar power interconnected by U.S. electric utilities in 2011. It covers more than 240 of the most solar-active utilities representing more than 99% of the U.S. solar electric power marketplace. This summary examines key market trends and national rankings.

Key Trends:

- *Utilities are adapting to solar as their fastest growing electricity source.* In 2011, utilities interconnected over 62,500 PV systems. Thirteen utilities interconnected more than 1,000 PV systems and 22 interconnected more than 500 systems. To put this in perspective, about 350 non-solar power plants (> 1 MW) were expected across the entire U.S. in 2011.¹ This annual volume of smaller, distributed solar interconnections is unlike anything the utility industry has previously managed, and conservative forecasts indicate that this number will grow to more than 150,000 interconnections in 2015.

The magnitude of these numbers poses strategic questions related to how utilities will physically process this volume of interconnection requests, how the distribution grid will accommodate this high-penetration growth, and how the utility and solar industries will resolve the economic implications of reduced sales of electricity.

- *For the fourth straight year, utilities integrated a record amount of new solar power, despite the recession.* The nation's most solar active utilities integrated almost 1,500 megawatts (MW-ac) of new solar, equivalent to six natural gas power plants, breaking the 1 gigawatt threshold for the first time. In addition to the large number of PV systems, 15 utilities reported integrating more than 20 MW each, and eight reported more than 50 MW each. While residential homes accounted for more than 89% of the installations, commercial rooftop installations accounted for more than 53% of the capacity.

These 2011 numbers represent a 38% growth in the number of installations and a 120% growth in the megawatts installed over 2010. SEPA expects continued growth in 2012, driven by sustained price decreases and a build-out of large solar power plant contracts.

- *Utility-driven solar procurement is vital to rapid solar market expansion.* Utility-driven procurement represented 39% of the new solar capacity in 2011, versus 9% in 2008. As compared to the more traditional customer-oriented market segment, this sector consists of direct wholesale purchases and utility-owned projects, which were 26% and 13% of the market respectively. Large solar projects (> 10 MW) make up the bulk of this capacity with an estimated 18 projects totaling 332 MW, up from 226 MW in 2010. SEPA anticipates that this utility segment could increase to 1500 MW in 2012, equivalent to the 2011 market in its entirety.

Today, the most solar-active utilities are no longer theoretically talking about solar in the future – they are engaged with solar today in substantial ways. As solar markets grow, these utilities are already adapting to this rapid growth and the operational and regulatory changes that it requires, and in the process laying a path that other utilities will soon follow.

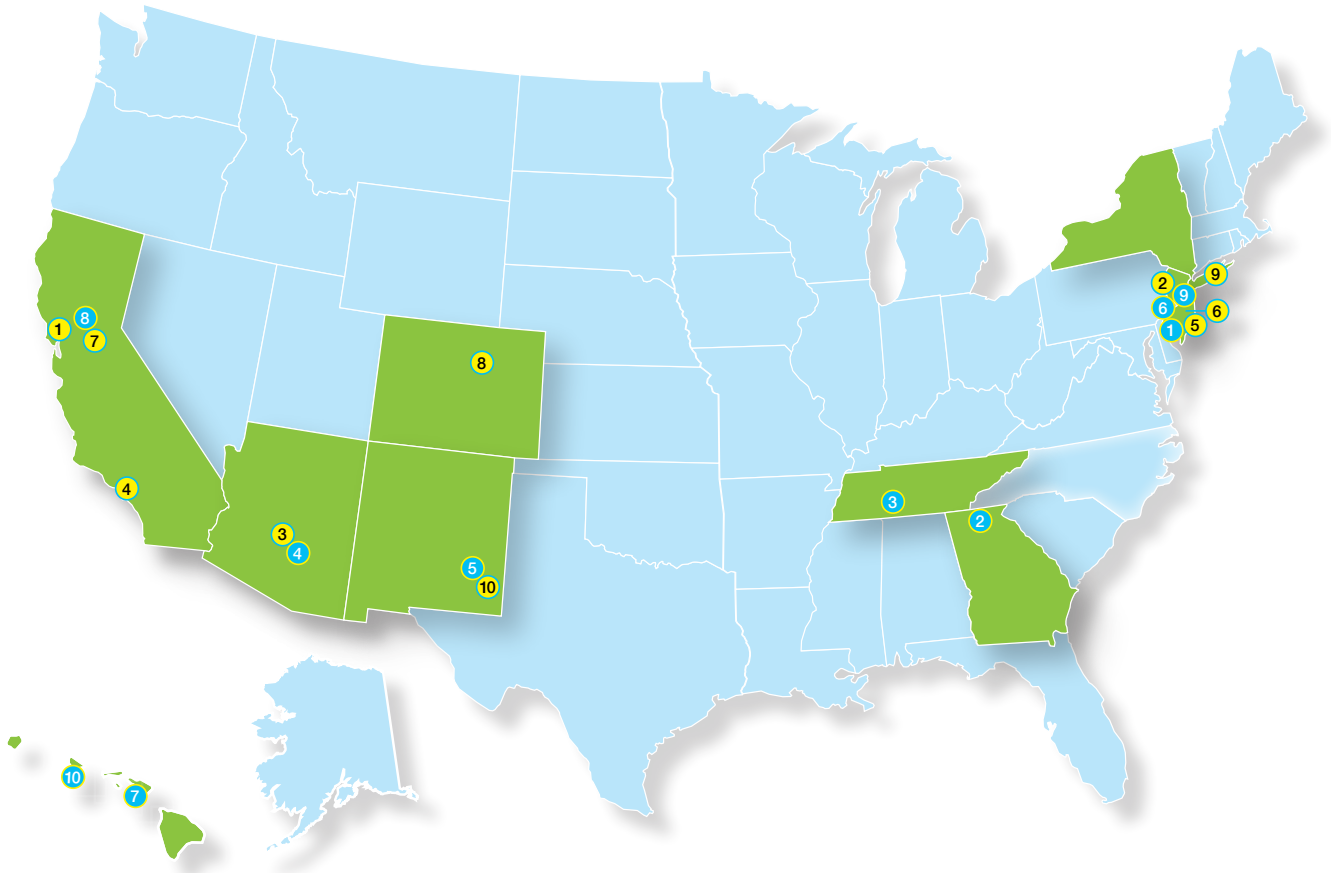
National Utility Solar Rankings

The Top 10 annual national rankings measure a utility's newly integrated solar power and includes photovoltaic systems interconnected in 2011. There are two rankings categories: *Solar Megawatts*, measuring a utility's total solar capacity and *Solar Watts-per-Customer*, standardizing the capacity on the number of customers.

Solar Megawatts

Pacific Gas & Electric (PG&E) ranked first and installed 288 MW. Their portfolio was about half large projects, including three utility owned projects totaling 50 MW and a PPA with the largest project completed in the U.S. in 2011. PG&E also integrated more than 13,600 customer-sited projects. Public Service Electric & Gas (PSE&G) ranked second with a 181 MW portfolio, a 142 percent growth over 2010. Their portfolio was 83% distributed projects and 13% utility-owned. Both are investor-owned utilities.

¹ <http://205.254.135.7/electricity/annual/html/table1.4.cfm>



Annual Solar Megawatts (MW-ac)

'11	'10	Utility	MW-ac
1	1	Pacific Gas and Electric Co. (CA)	287.7
2	3	Public Service Electric & Gas Co. (NJ)	181.3
3	7	Arizona Public Service (APS) (AZ)	144.4
4	4	Southern California Edison (CA)	138.5
5	12	Atlantic City Electric (NJ)	61.2
6	9	Jersey Central Power & Light (NJ)	53.0
7	15	Sacramento Municipal Utility District (CA)	52.8
8	5	Xcel Energy - CO (CO)	51.3
9	20	Long Island Power Authority (NY)	46.9
10	56	Xcel Energy - NM (NM)	45.6

Annual Solar Watts-per-Customer (Watts-ac)

'11	'10	Utility	Watts-ac
1	NR	Vineland Municipal Electric Utility (NJ)	768.5
2	162	Blue Ridge Mt Electric Membership Corp (GA)	192.4
3	89	Fayetteville Public Utilities (TN)	147.6
4	11	Arizona Public Service (APS) (AZ)	128.7
5	84	Xcel Energy - NM (NM)	115.5
6	9	Atlantic City Electric Co. (NJ)	114.5
7	15	Maui Electric Company (HI)	100.2
8	22	Sacramento Municipal Utility District (CA)	88.5
9	2	Public Service Electric & Gas Co. (NJ)	85.7
10	3	Hawaiian Electric Co., Inc. (HI)	82.9

Two public power utilities made the rankings, with Sacramento Municipal Utility District (SMUD) ranking #7 and Long Island Power Authority (LIPA) ranking #9. Both utilities had annual solar portfolios largely driven by large projects (79% SMUD and 69% LIPA).

To make this year's rankings, it took a minimum of 45 MW, compared to 20 MW in 2010.

*Rankings are based on SEPA's 2011 survey of U.S. electric utilities.



The 2.5 MW Vineland Solar III project, in New Jersey, was completed in November 2011. It is part of a larger, 6.5 MW solar facility for which Vineland Municipal Electric Utility holds a power purchase agreement.

Solar Watts-per-Customer

Vineland Municipal Electric Utility ranked first nationally with 769 watts-per-customer (w/c) after integrating nearly 19 MW of PV relative to their nearly 25,000 customers. Blue Ridge Mountain Electric Membership Corporation and Fayetteville Public Utilities follow at #2 and #3, respectively. Both utilities participate in Tennessee Valley Authority's Green Power Partners program. Blue Ridge was the only rural electric cooperative utility on either list.

It required 83 w/c to rank this year, compared to 28 w/c in 2010. This ranking was balanced between utilities on both coasts, six of which were investor-owned. Five utilities made both Top 10 lists.

Conclusion

This year's Top 10 report depicts a rapid rise in the amount of solar interconnected on utility grids and a trend towards utility-led initiatives. A few years ago, the solar integrated into the grid was dominated by customer-owned, net metered systems, but there is a marked shift toward the utility-side of the meter as utilities influence solar markets in new ways.

More Information

Findings from the full Utility Rankings survey will include additional analysis and discussion on the national rankings, including the cumulative utilities' solar portfolios and rankings by region and utility-type. For more information, visit www.SEPATop10.org.

About SEPA

The Solar Electric Power Association (SEPA) is an educational non-profit organization dedicated to helping utilities integrate solar power into their energy portfolios. The *SEPA Top 10 Utility Solar Rankings* report is one of many research, educational and networking services SEPA provides its utility and solar industry members. For more information, visit www.solarelectricpower.org.



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