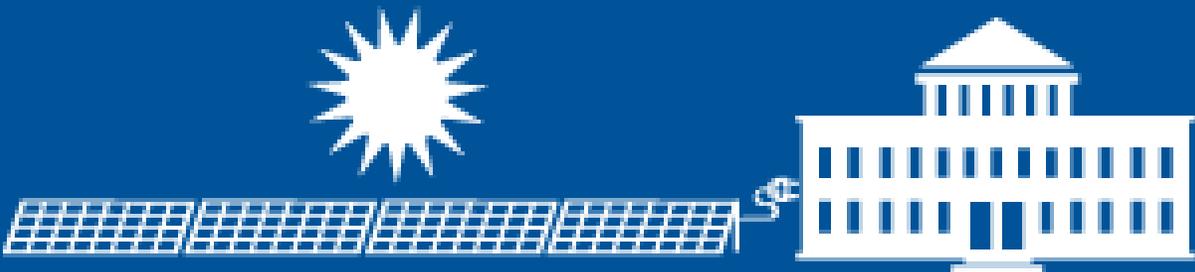


Minnesota Renewable Energy Procurement Workshop:

Solar Market & Policy Trends

September 18, 2019



Market Trends: Solar Costs

Levelized Cost of Energy Comparison—Unsubsidized Analysis

Certain Alternative Energy generation technologies are cost-competitive with conventional generation technologies under certain circumstances⁽¹⁾



Mid-sized on-site solar projects* are increasingly cost-competitive with alternatives.

*Which can fall into any of the categories listed here

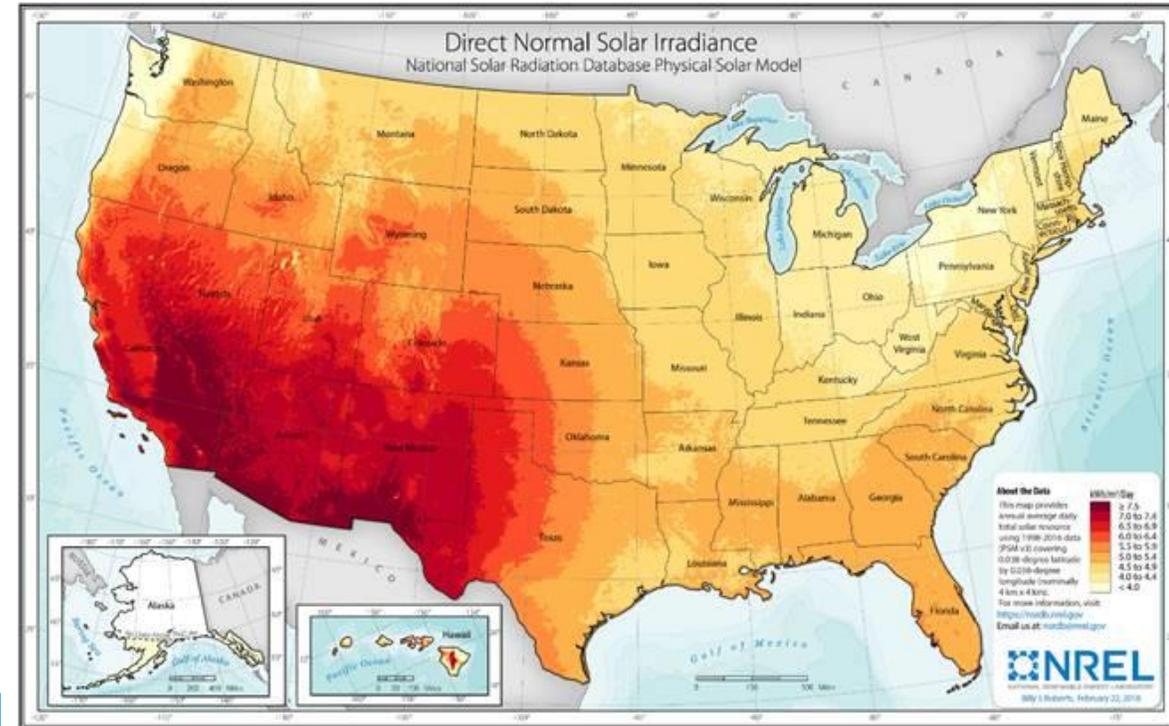
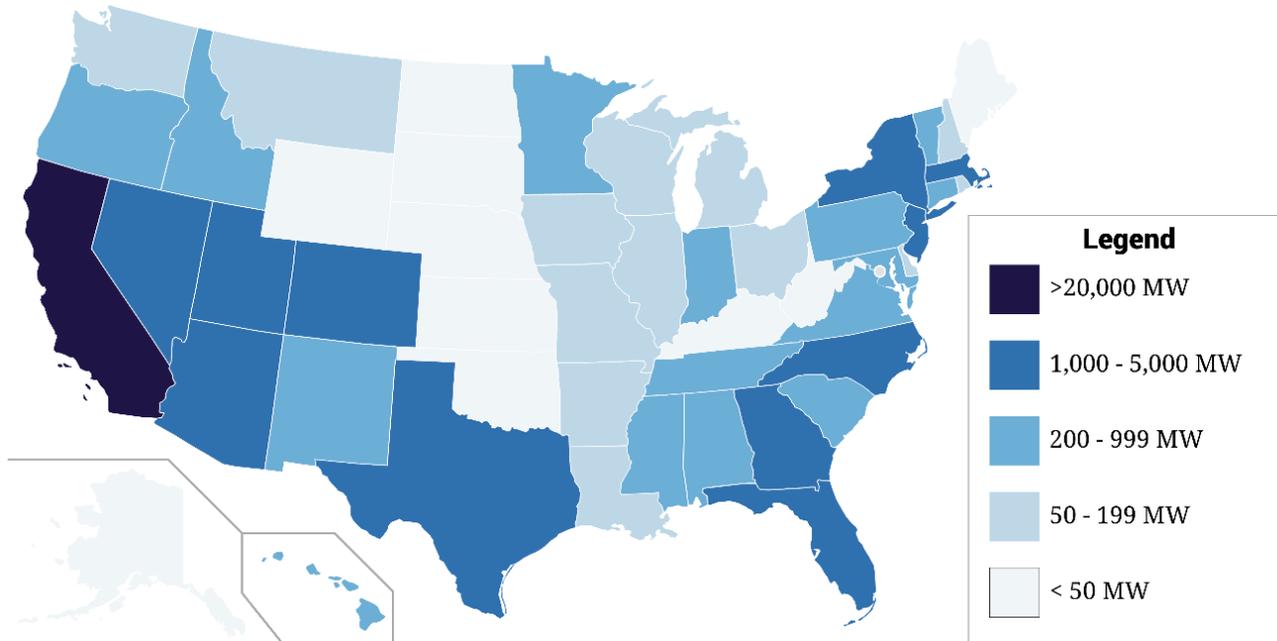
Source: Lazard estimates.

Source: [Lazard's Levelized Cost of Energy Version 12.0 \(2018\)](#).



Market Trends: Installed Solar Capacity

Cumulative Solar Capacity by State through Q2 2018



Key Solar-Supportive Policies

- **Federal**

- Investment Tax Credit

- **State**

- Net metering
- Community solar
- Retail choice/Third-party sales
- Renewable portfolio standards (RPS)

- **Local**

- Clean energy targets
- Siting and permitting
- Interconnection

	2016	2017	2018	2019	2020	2021	2022	2023	2024
30%	Start construction				Project online by				
26%					Start constr.	Project online by			
22%						Start constr.	Project online by		
10%							Start constr. (Util & C&I only) →		



Key Policies: Minnesota

- **State**

- Net metering: ✓ (1 MW/project, except community gardens – 5MW)
- Community solar: ≈
- Retail choice: X
- Third-party sales: ≈
- Renewable portfolio standards (RPS) ✓

- **Local**

- Clean energy targets: **Some**
- Siting and permitting: **Some**
- Interconnection: **Some**

...And many more

Source: [DSIRE](#)



Key Policies: Minnesota

Check the Database of State Incentives for Renewables & Efficiency (DSIRE) for additional specifics on Minnesota policies.

The screenshot shows the DSIRE website interface. At the top, there is a navigation bar with links for Home, Programs, Resources, Services, Help/Support, About Us, and Contact Us. A red button labeled "Try Solar Calculator" is also present. The DSIRE logo and the NC Clean Energy Technology Center logo are on the left. Below the navigation bar, there is a search bar, a "Subscribe" button, and a "Show 50 entries" dropdown. A table of policies is displayed below, with columns for Name, State/Territory, Category, Policy/Incentive Type, Created, and Last Updated. The table lists six policies for Minnesota, including Interconnection Standards, Comprehensive Energy Savings Plan for State Facilities, Xcel Energy - Renewable Development Fund Grants, Stearns Electric Association - Residential Energy Efficiency Rebate Program, CenterPoint Energy (Gas) - Commercial Energy Efficiency Rebate Program, and CenterPoint Energy (Gas) - Residential Energy Efficiency Rebate Program.

Name	State/Territory	Category	Policy/Incentive Type	Created	Last Updated
Interconnection Standards	MN	Regulatory Policy	Interconnection	06/19/2003	09/10/2019
Comprehensive Energy Savings Plan for State Facilities	MN	Regulatory Policy	Energy Standards for Public Buildings	01/01/2000	08/13/2019
Xcel Energy - Renewable Development Fund Grants	MN	Financial Incentive	Grant Program	01/12/2004	06/10/2019
Stearns Electric Association - Residential Energy Efficiency Rebate Program	MN	Financial Incentive	Rebate Program	06/10/2009	06/06/2019
CenterPoint Energy (Gas) - Commercial Energy Efficiency Rebate Program	MN	Financial Incentive	Rebate Program	11/04/2009	06/06/2019
CenterPoint Energy (Gas) - Residential Energy Efficiency Rebate Program	MN	Financial Incentive	Rebate Program	05/04/2009	06/06/2019



Questions?

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