

SolSmart: Connecting Communities and Regions to Solar Best Practices

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MWCOCG CEEPC



What we'll share today

- SolSmart overview and updates
- SolSmart best practices
- Opportunities for regional collaboration
- Questions?

Acknowledgement and Disclaimer

- Acknowledgment: This material is based upon work supported by the Department of Energy, Office of Energy Efficiency and Renewable Energy (EERE), under Award Numbers DE-EE0009950 & DE-EE0009951.
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About SolSmart

- SolSmart is a no cost technical assistance and designation program that serves local governments (cities, towns, counties) and regional organizations
- SolSmart helps local governments remove barriers to solar energy growth and make it easier for residents and businesses to go solar
- SolSmart helps communities reduce “soft costs” — the costs of solar development that are unrelated to hardware



What's New?

- SolSmart is funded through 2027 and aiming to serve another 500 communities!
- In Spring 2023 we launched revised criteria that integrated new best practices including automated permitting, solar + storage, and equity
- We've added a platinum designation level!

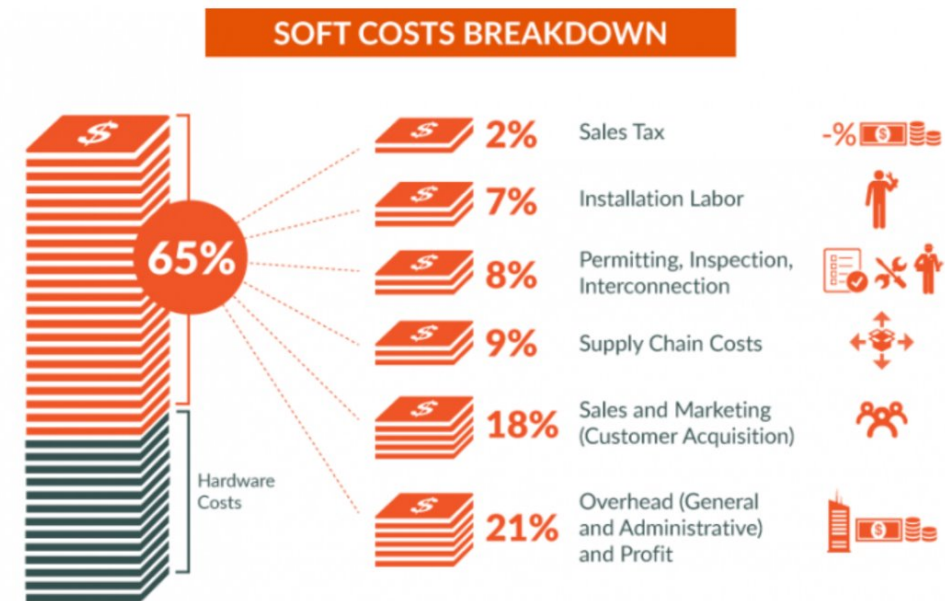
Solar Funding Opportunities

It is more affordable than ever to go solar. The Inflation Reduction Act (IRA) and Bipartisan Infrastructure Law (BIL) provide:

- Tax credits for residents and businesses that install solar (or other clean energy resources) and make upgrades to their homes/businesses.
- Special bonus credits to support energy and disadvantaged communities.
- Opportunities for local governments and other tax-exempt organizations to receive direct payment of tax credits.
- Grants and programs that support specific applications of solar, such as brownfield development and community solar.
- Funding to support uptake by low- and moderate-income residents, such as through the EPA's Solar for All Program

Local Action is Important to Solar Markets

- 65% of the cost of a solar PV system is not related to hardware. Local action can reduce these “soft costs”:
 - Streamlining permitting and inspection;
 - Supporting consumer education;
 - Leading by example;
 - Facilitating group purchasing;
 - Filling gaps in financing
- With the solar energy market growing nationwide, a proactive approach can ensure growth in your community.



Source: National Renewable Energy Laboratory "U.S. Solar Photovoltaic System Cost Benchmark: Q1 2021."

SolSmart by the Numbers

- 43 states + District of Columbia, Puerto Rico, U.S. Virgin Islands
- 117 million people (over 1 in 3 U.S. residents)



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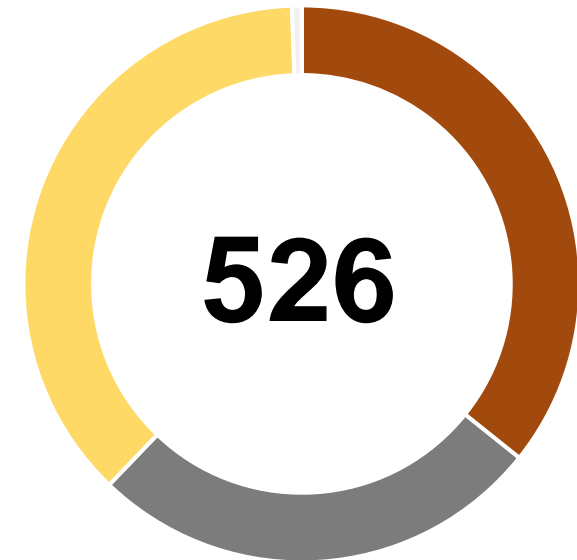
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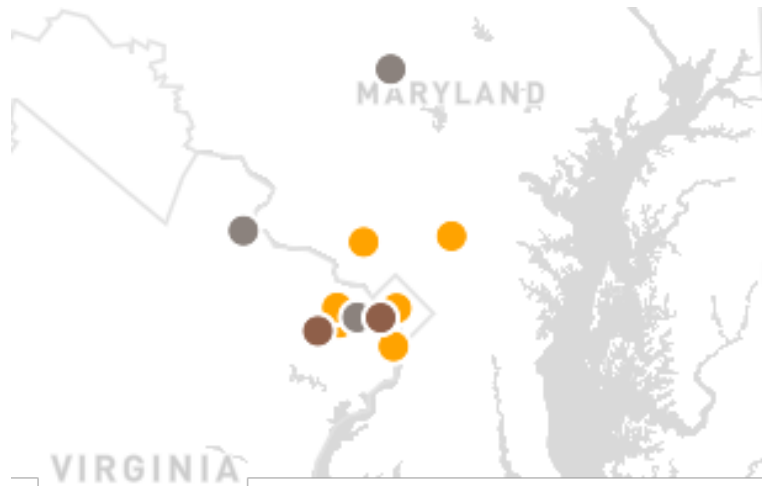
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SolSmart in Metro Washington



No platinum designees in the region yet!

Current designees include:



- City of Fairfax, VA
- Arlington County, VA



- Falls Church, VA
- Loudoun County, VA
- Carroll County, MD



- Alexandria, VA
- Fairfax County, VA
- Montgomery County, MD
- Northern Virginia Regional Commission, VA
- Laurel, MD
- Washington, DC

Designation Structure

There are four levels of designation: Bronze, Silver, Gold, and Platinum. Communities achieve designation by meeting prerequisites (listed below for each level) as well as meeting other elective criteria.



INTERSTATE RENEWABLE ENERGY COUNCIL

Independent leadership. Trusted clean energy expertise.



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SolSmart Actions

- **Improve policies and procedures**
 - Adopt best practices in zoning, permitting and inspection
 - Examples: Rooftop solar as a permitting accessory use, building permits for solar issued in 3 days or less
- **Increase transparency**
 - Provide clear information on the process and required submissions for solar permits
 - Examples: Post a permitting checklist online
- **Increase understanding**
 - Increase the solar knowledge of both internal and external stakeholders
 - Examples: Provide training on solar PV to staff working in permitting and inspection, provide a solar landing page or solar information session for residents
- **Reduce barriers**
 - Identify and remove policies and practices that may be a barrier to solar in your community
 - Examples: Remove barriers in zoning policies, reduce (or waive) fees, create programs to reach historically underserved communities

SolSmart: A Roadmap to Advance Solar Locally

Five “Solar-Ready” Categories:

92 criteria across the five categories; Point values ranging from 5 to 20

Permitting & Inspection

Market Development

Government Operations

Planning & Zoning

Community Engagement



23 Chicago-area cities, towns, and counties awarded SolSmart designations at Argonne National Lab in 2019

Customized Technical Assistance

The SolSmart team includes organizations with years of experience providing local governments with the solutions and expertise needed to remove barriers to solar deployment and implement best practices, including:

- Planning and zoning
- Permitting and inspection
- Procurement
- Solar PV system design
- Feasibility assessments
- Policy and market expertise
- Financing
- Stakeholder engagement



Access to Best Practices

The SolSmart Program Guides summarize best practices for local governments, counties and regional governments.

<https://solsmart.org/resource/solsmart-program-guide>



Templates and Examples

Communities are provided with templates, checklists, community examples and guidance documents.


SolSmart Guidance and Template

CE-1

Post a solar landing page on local government's website with information that may include the community's solar goals, educational materials and tools that promote solar, and resources for solar development (e.g. permitting checklist, application forms, zoning regulations, etc.). (Required for Silver)

Objective:
A solar landing page is a way to provide residents, businesses, and solar installers with important information about your community's solar energy policies, processes, goals, and metrics from one centralized location. It is also a way to educate community members about solar energy topics like financing options and consumer protection best practices. Information and resources posted should be made available in multiple languages, as appropriate for your community, and should be available to community members in print form if requested.

The CE-1 criteria is completed when the solar landing page is publicly accessible on the local government's webpage. Opportunities for the community to achieve additional points have been called out via comments throughout the template.






Space for Logo and/or Contact information:
Office/Department | Room | Address | Phone Number | Email Address | Website

Rooftop Solar Photovoltaic (PV) System Field Inspection Checklist

This checklist provides basic guidelines for inspecting most residential rooftop solar PV systems (15 kW and under). Ground-mounted systems, systems with energy storage, building-integrated systems, and commercial systems, for example, would not be fully covered by this checklist. The intent of using the checklist is to provide transparent and well-defined information to minimize the number of re-inspections and accelerate project completion for most PV systems. These guidelines are not exhaustive.

Make sure all PV disconnects and circuit breakers are in the open position and verify the following:
Helpful tip: Update the following checklist to include any relevant state or local code requirements.

1. All work done in a neat and workmanlike manner [NEC 110.12].
2. PV module model number, quantity, and location according to the approved plan.
3. Array mounting system and structural connections according to the approved plan and manufacturers' instructions.
4. Roof penetrations flashed/sealed according to the approved plan and manufacturers' instructions.
5. Exposed cables are properly secured, supported, and routed to prevent physical damage.
6. Conduit installation according to NEC 690.31(D) and the approved plan.
7. Firefighter access according to IRC R324 and the approved plan.
8. Roof-mounted PV mounting system and modules have sufficient fire classification [IRC R324.4.2].
9. Grounding/bonding of rack, modules, inverter(s), and other electrical equipment according to the manufacturer's instructions.
10. Equipment installed, listed, and labeled according to the approved plan and manufacturers' instructions (e.g., PV modules, inverters, dc-to-dc converters, rapid shutdown equipment).
11. For grid-connected systems, inverter is marked "interactive," or documentation is provided to show that inverter meets utility interconnection requirements.
12. Conductors, cables, and conduit types, sizes, and markings according to the approved plan.
13. Overcurrent devices are the type and size according to the approved plan.
14. Disconnects according to the approved plan and properly located as required by the NEC.
15. Inverter output circuit breaker is located at opposite end of bus from utility supply at load center and/or service panelboard. If panel is center-fed, inverter output circuit breaker can be at either end of busbar [NEC 705.12(B)] (not required if the sum of the inverter and utility supply circuit breakers is less than or equal to the panelboard bus rating).
16. PV system markings, labels, and signs according to the approved plan.
17. Connection of the PV system equipment grounding conductors according to the approved plan.
18. Access and working space for operation and maintenance of PV equipment such as inverters, disconnecting means and panelboards (not required for PV modules) [NEC 110.26].
19. The rapid shutdown system is installed and operational according to the approved plan and manufacturers' instructions [NEC 690.12].



Solar PV Field Inspection Checklist Version 1, Updated 3/10/21

Opportunities for Regional Collaboration

The Solsmart team has worked with numerous regional organizations. Working together, we can:

- Build stronger regional solar markets
- Tackle shared regional challenges
- Enable quick transfer of best practices across a region
- Create a friendly spirit of collaboration and competition

Example 1. Cohort in North Central Texas

- North Central Texas Council of Governments - designated bronze in 2020
- A “cohort” of communities are following a 5-month schedule with monthly meetings and “homework” to complete their SolSmart designations
- Communities complete the required trainings together and have opportunities to learn and share
- Additional 1:1 technical support is available outside of the cohort sessions

Example 2. Shared learning and procurement in the Delaware Valley

- Delaware Valley Regional Planning Commission-designated SolSmart bronze in 2020
- A concerted outreach effort across the region resulted in more than 20 designated towns and counties
- DVRPC continues to offer on-going solar training opportunities
- DVRPC used SolSmart technical assistance to explore opportunities for a joint solar procurement



Example 3. Regionwide zoning reviews in Metro Madison, Wisconsin

- Capital Area Regional Planning Commission- designated SolSmart bronze in April 2024
- 7 member communities pursued designation with CARPC support; 2 were recently designated platinum (Dane County & Sun Prairie)
- County & CARPC collaborated to conduct outreach, implement strategies and host trainings
- CARPC used the SolSmart zoning review template to review zoning ordinance across the region and identify common barriers and trends

How to get started!

Go to [SolSmart.org](https://solsmart.org)



Get Started

Fields with * are required.

First Name*

Last Name*

Email Address*

I work at a...*

Name of Local Government or Organization*

State*

How did you hear about SolSmart?*

How can we help?

Set up a meeting with us! Provide three convenient times (month, day, time)



ABOUT SOLSMART ▾

OUR COMMUNITIES ▾

RESOURCES ▾

JOIN SOLSMART



We're Helping Local Governments Become



Questions & Discussion