

Pennsylvania Planning Conference 2021  
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# Acknowledgment and Disclaimer

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# What is SolSmart?

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SolSmart is a national designation and technical assistance program that helps local governments make it faster, easier, and more affordable for residents and businesses to go solar.

A SolSmart designation:

- Recognizes communities that have taken key steps to address local barriers to solar energy.
- Demonstrates that a community is “**open for solar business**,” making it attractive to solar companies.

SolSmart provides **targeted, no-cost technical assistance** to help communities reduce soft costs and earn SolSmart designation.

# Program Design and Execution

Technical Assistance Program



**CADMUS**



Designation Program Administrator



**CADMUS**



# Designation Structure

To receive designation, communities must complete the following:



## **Complete 3 prerequisites**

20 points in Permitting & Inspection

20 points in Planning & Zoning

60 total points



## **Attain SolSmart Bronze and**

Complete 3 additional  
prerequisites

100 total points



## **Attain SolSmart Silver and**

Complete 2 additional  
prerequisites

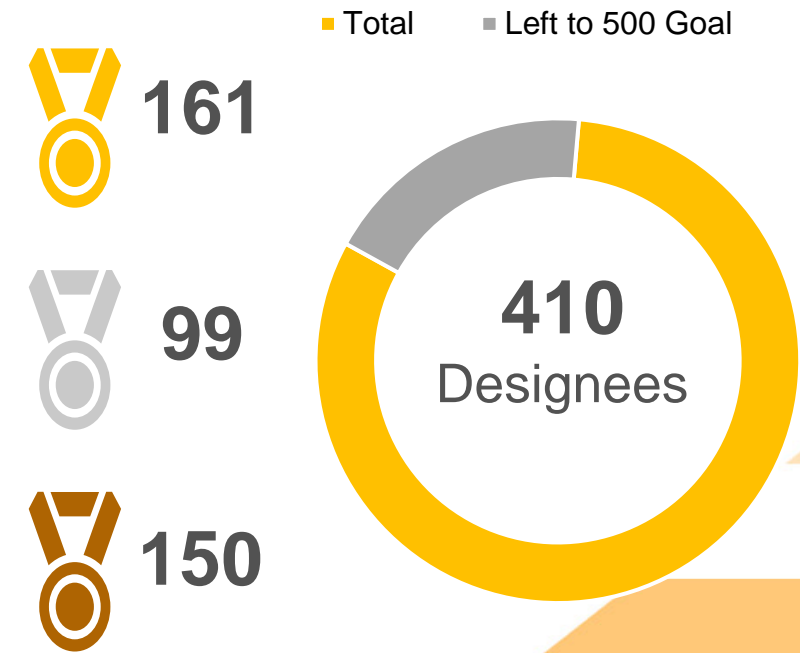
200 total points

# Key Accomplishments: SolSmart by the Numbers

- 41 states + District of Columbia + USVI
- Represents 101 million people (over 1 in 4 U.S. residents)
- Regional Organization Pathway:  
9 Designated Regional Organizations

## SolSmart in Pennsylvania

- 18 communities and 1 regional organization designated
- 13 Bronze, 4 Silver, and 1 Gold communities (1 bronze regional organization)



# Core Competencies: Criteria and Designation

- 75 unique credits in 5 different categories that promote best practices to help local governments improve their solar markets
- Each credit has a corresponding point value ranging from 5 to 20
- Foundational Categories:
  - Permitting and Inspection
  - Planning and Zoning
- Special Focus Categories:
  - Government Operations
  - Community Engagement
  - Market Development

**"The SolSmart program created a national benchmark for communities to reach and provided the guidance and resources to support adoption of best practices in solar policy."**— Maurice Jones, City Manager, Charlottesville, Virginia

# SolSmart Actions

## Increase transparency

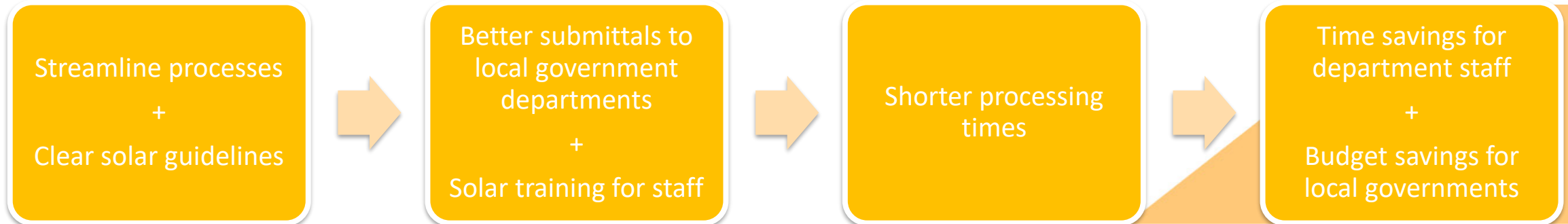
- Post a permitting checklist online
- Develop a solar landing page

## Increase understanding

- Provide training on solar PV to staff working in permitting and inspection
- Train planning staff on planning and zoning best practices for solar PV

## Reduce barriers

- Decrease permit turnaround time
- Codify that solar PV is a by-right accessory use in the zoning ordinance





# Technical Assistance



- SolSmart technical assistance providers work with communities to update processes using established best practices
- The technical assistance is funded by SolSmart, and there is no cost to the community
  - Communities must commit staff time to working toward SolSmart designation
  - Communities must demonstrate a commitment to achieving designation
- Delivery of technical assistance can be tailored to fit the community needs
  - Online – resource library, email, webinars, templates
  - Phone – conference calls
  - In person – site visits, technical workshops



# Technical Assistance Guides, Templates, and Resources



The SolSmart program has an extensive resource library.

- The updated [program guide](#) walks through each credit of the SolSmart designation criteria.
- More in-depth resources can be found on the [SolSmart Resources](#) page. Here you'll find webinars and issue briefs tagged with the specific criteria they address.
- Just released: Simplified Permit Guidelines for Solar and Storage

The screenshot shows the SolSmart website's resource page for a webinar. The header includes the SolSmart logo, navigation links (HOW WE HELP, OUR DESIGNEES, RESOURCES, NEWS), a 'GET STARTED' button, and social media icons. The main content area features the webinar title 'SOLSMART WEBINAR: PERMITTING & INSPECTION REFRESHER TRAINING' by SolSmart and Bill Brooks, P.E., from The Solar Foundation. Below the title is a video player thumbnail for the webinar, dated 09/23/2020, with social media share icons (Facebook, Twitter, Google+, LinkedIn, Email). To the right of the video, there is a description of the webinar as a refresher on simplified solar permitting and inspection best practices for residential systems. Below the description, a 'Related Criteria' section lists two items: PI-3 (Train permitting staff) and PI-4 (Train inspection staff), both requiring training within the past five years. A 'VIEW RECORDED WEBINAR' button is located below the criteria. The footer includes a 'JOIN OUR MAILING LIST' field, 'GET STARTED' and 'CONTACT' links, and social media icons for Twitter, Facebook, and YouTube.



# SolSmart Program Evaluation: What We Did

SolSmart commissioned a third-party evaluation led by four universities (Missouri University of Science & Technology, Florida State University, University of Miami, and University of Texas at Austin) to look at the impact of the program on local governments and make recommendations for improvement. The survey includes quantitative and qualitative data:

## 36 Interviews

- Conducted 1-hour semi-structured interviews with:
  - 22 designees
  - 2 non-designees
  - 12 solar installersfrom CA, FL, IL, MO, NY, and TX

## 537 Surveys

- Distributed survey to over 5,000 governments and installers (5-7% response rate)
- Used Qualtrics Panel to recruit solar owners
- Participants include:
  - 121 designees
  - 91 non-designees
  - 117 solar installers
  - 179 solar owners

## 6 External Data Sets

- Combined SolSmart program data with:
  - U.S. Census American Community Survey
  - Database of State Incentives for Renewables and Efficiency (DSIRE)
  - LBNL Tracking the Sun
  - NREL solar permitting
  - DeepSolar
  - BloombergNEF

# SolSmart Program Evaluation: What We Found

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- SolSmart-designated communities **increased their solar capacity** by 69 kW per month on average — a 67% increase. The **number of installations** increased by 62%, or 3 systems per month on average.
- Across the country, SolSmart led to approximately **300-450 MW of additional solar capacity** and 12,800-19,200 new installations.

## SolSmart Program Evaluation: What Else We Found

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- SolSmart **speeds up the permitting process** for solar installations by **7.5 days** on average — reducing delays for local governments, solar companies, and consumers.
- In surveys, local government and industry officials say the biggest impact of SolSmart is **increased local knowledge about solar energy**.
- SolSmart delivers for communities: \$10 million in taxpayer funds for SolSmart led to **\$1-2 billion in additional solar investment**.
- While it has a positive impact on the permitting process, data is inconclusive whether or not SolSmart speeds up the process for inspection and interconnection or the overall installation process.

# SolSmart and SolarAPP+

Automated permitting is an excellent way to increase permitting turnaround time and decrease the community workload in processing permits. SolSmart has participated in the development of SolarAPP+, a free product for communities providing standardized plan review software that can run compliance checks and process building permit approvals for eligible rooftop solar systems.



## Automated Permitting and SolSmart Designation

The permitting and inspection of solar photovoltaic (PV) systems can have a major impact on the cost of going solar. Thousands of dollars can be added to a solar system's price tag due to the time and effort required for an installation company to obtain a construction permit and approval from the local Authority Having Jurisdiction (AHJ). Lengthy permitting timelines can lead to backing out of contracts, forcing installers to pass sunk costs onto consumers. Streamlining the permitting process literally makes or breaks solar deals.

This is why Permitting & Inspection is a foundational category for the U.S. Department of Energy funded program to recognize and reward local governments that meet higher requirements, local governments must earn at least 20 points to achieve Bronze-level designation, provide training for permitting staff, and achieve a three-business day or less turn around for small rooftop solar permits.



## Moving from Silver to Gold Designation with SolarAPP+

A local government's decision to utilize [SolarAPP+](#) to reduce permitting times for solar PV and storage can be an excellent springboard to further reduce the other [soft costs](#) that often limit the installation of solar PV in a community. The SolSmart program offers resources and technical assistance for local governments to increase transparency and reduce the barriers to solar development. Utilization of the SolarAPP+ tool can streamline the SolSmart designation process.

### Benefits of Automated Permitting:

- Increased efficiency of building department staff with attention focused on non-standard systems
- Consistent and complete applications from installers
- Improved code compliance through automated review
- Reduced staff training needs since less staff are needed to review solar permits
- Lower costs to consumers helps increase solar deployment to meet community clean energy or carbon reduction goals

# Collaboration





# Solar Workgroup Co-Conveners and Planning Team Members



[www.swvasolar.org](http://www.swvasolar.org)



[www.solsmart.org](http://www.solsmart.org)



# Pursuing a local solar industry since 2016..



# Solar Workgroup of SWVA Mission and Vision



**Vision:** Southwest Virginia is a solar leader in the Commonwealth and Central Appalachia, building on the region's proud history as an energy leader, working to realize the economic, environmental, and resiliency benefits of solar energy markets for all SWVA community members.

**Mission:** The Solar Workgroup of Southwest Virginia is developing a locally rooted solar industry as a regional economic and social catalyst, creating jobs and energy savings, as well as attracting renewable energy investments and new business opportunities to SWVA.





# Solar Workgroup Goals



- 1 Identify and develop sites that are ideal for solar development, especially solar “ambassador” projects.
- 2 Grow workforce development and entrepreneurship opportunities to advance solar projects and maximize local benefits.
- 3 Expand education and outreach in communities and with local leaders around solar benefits and opportunities.
- 4 Promote policy changes that will help grow the solar industry in Southwest Virginia.

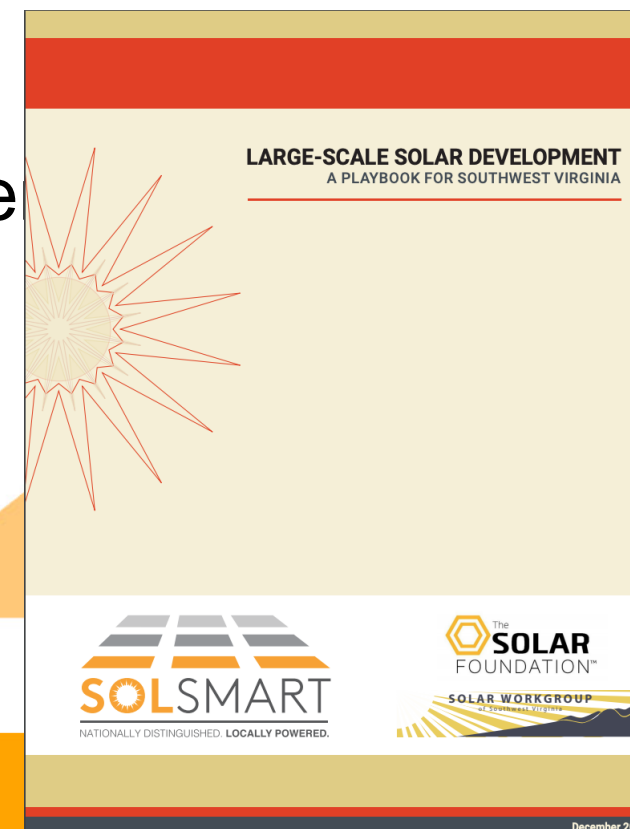






# Why: Solar Playbook for SWVA?

- How can the region maximize investment and local benefits from large scale solar development?
- Significant inventory of previously mined land
- Need for technical assistance to streamline development
  - Step-by-step guide for localities
  - Up to date information about policy
  - Specific to Southwest Virginia





## **LARGE-SCALE SOLAR DEVELOPMENT**

A PLAYBOOK FOR SOUTHWEST VIRGINIA

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Available at:  
[swvasolar.org/swva-solar-playbook/](http://swvasolar.org/swva-solar-playbook/)

# Local and State Context: Regulatory Approval



- Local Planning and Zoning Considerations
  - Comprehensive Plan
  - Zoning codes
  - Site plan review
  - Opportunity zones
- State Approval process
  - Permit by rule
- Other
  - Pollinator friendly solar





# Other Development Considerations

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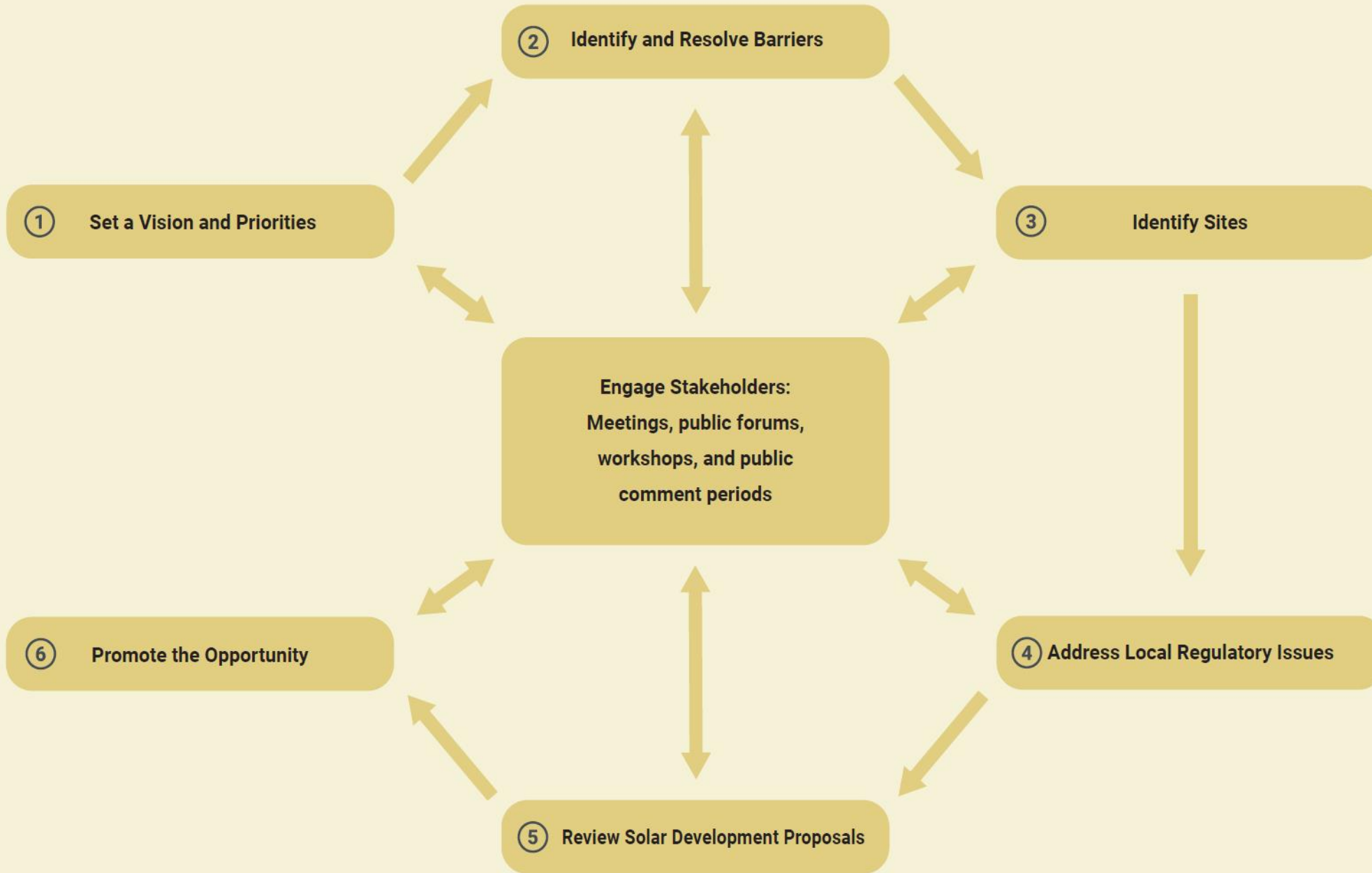


- Power Purchase Agreements and Net Metering
- PACE Financing
- Shared (Community) Solar
- Tax Revenue Options and Incentives
- Solar on Brownfields and Previously Mined Lands





# Steps for Local Governments to Facilitate Large-Scale Solar Development

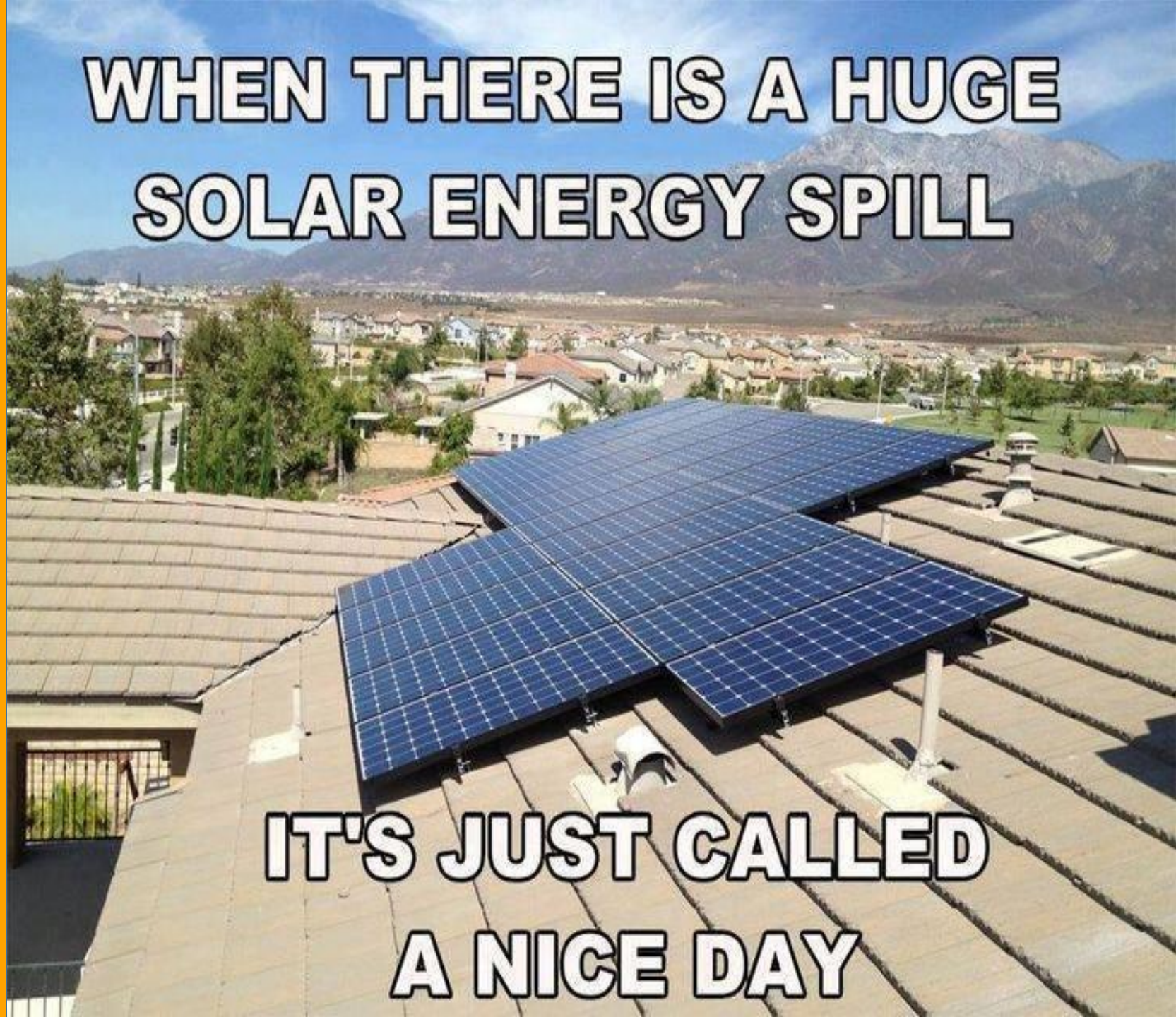




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**WHEN THERE IS A HUGE  
SOLAR ENERGY SPILL**

**IT'S JUST CALLED  
A NICE DAY**

### **Bronze** 60 Total Points 3 Pre-requisite Credits

- ☐ 20 Points in Permitting & Inspection
- ☐ 20 Points in Planning & Zoning
- ☐ 20 Points from any Special Focus category
  
- ☐ Complete the Solar Statement (PR-1)
- ☐ Complete solar permitting checklist (PI-1)
- ☐ Complete zoning review (PZ-1)

### **Silver** 100 Total Points 3 Pre-requisite Credits

- ☐ Complete bronze designation requirements
- ☐ Complete permit staff training (PI-2)
- ☐ Complete inspection staff training (PI-3)
- ☐ Complete zoning clarification (PZ-4)

### **Gold** 200 Total Points 2 Pre-requisite Credits

- ☐ Complete silver designation requirements
- ☐ Complete permit turnaround time (PI-4)
- ☐ Complete solar in zoning (PZ-5)