03/03/2020

SOLSMART
NATIONALLY DISTINGUISHED. **LOCALLY POWERED.**

SolSmart 101

Acknowledgment 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 Number DE-EE0007155."

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Theresa Perry

Program Director at The Solar Foundation

tperry@solarfound.org

202-866-0895

What is SolSmart?

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 and foster the growth of mature local solar markets.
- Demonstrates that a community is "**open for solar business**," making it attractive to solar industries.

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

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

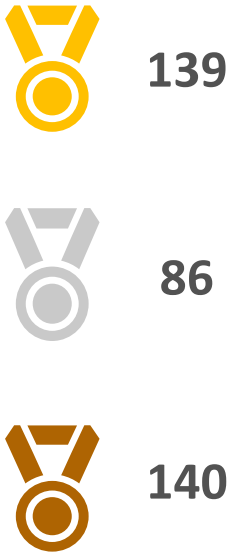
Core Competencies: Criteria and Designation

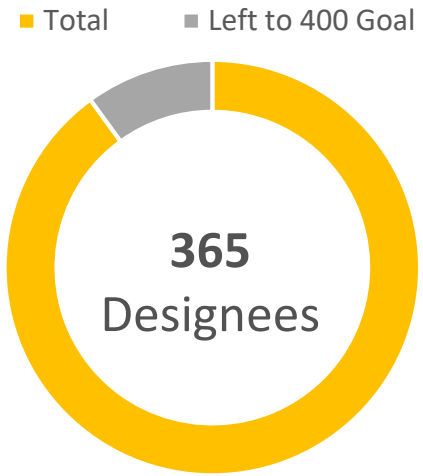
- 95 unique credits in 8 different categories that promote best practices to help local governments improve their solar markets
- Each credit has a corresponding point value ranging from 5 to 20
- Foundational Categories:
  - Permitting
  - Planning, Zoning & Development Regulations
- Special Focus Categories:
  - Inspection, Construction Codes, Solar rights
  - Utility Engagement, Community Engagement, Market Development & Finance

"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

Key Accomplishments: SolSmart by the Numbers

- 41 states + District of Columbia
- Represents 83 million people (1 in 4 U.S. residents)
- Regional Organization Pathway: 3 Designated Regional Organizations
- SolSmart Innovation Award: Winners: Go Solar Melrose (Big Roof Solar) and the Metropolitan Mayors Caucus
- Technical Assistance Satisfaction Survey: Average TA Satisfaction Rate from all 8 surveys = 96.9%
  (Last 3 surveys all had 100% satisfaction)
- Advisor Satisfaction Survey: Average of All Rounds = 96% Satisfaction Rate





Data as of March 2, 2020

Program Design and Execution

Technical Assistance Program

The SOLAR FOUNDATION™ for a bright future

CADMUS

NLC NATIONAL LEAGUE OF CITIES CITIES STRONG TOGETHER

NREL NATIONAL RENEWABLE ENERGY LABORATORY

RAP®

BROOKS ENGINEERING

EPRI ELECTRIC POWER RESEARCH INSTITUTE

SEIA Solar Energy Industries Association®

NATIONAL ASSOCIATION of COUNTIES NACo

Designation Program Administrator

ICMA Leaders at the Core of Better Communities

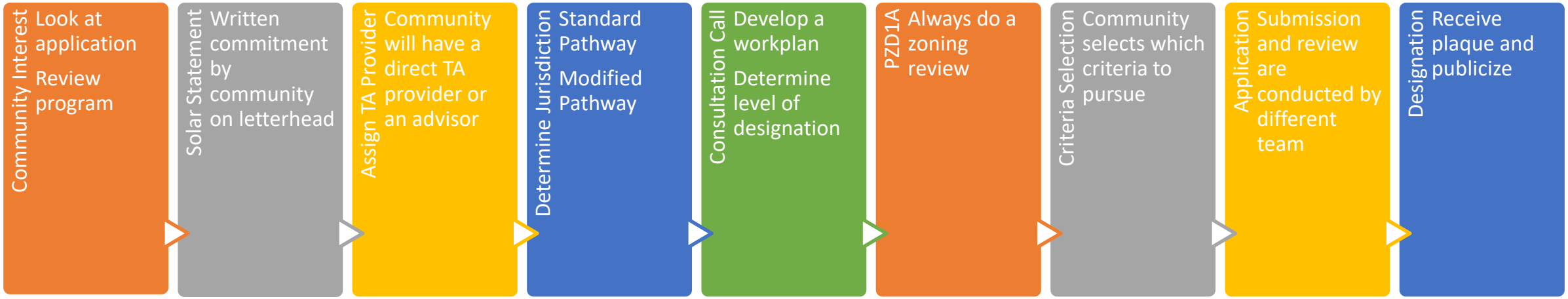
National Civic League

The SOLAR FOUNDATION™ for a bright future

Home Innovation RESEARCH LABS™

CADMUS

Process Overview



Nick Kasza

Program Manager at the National League of Cities

kasza@nlc.org

202-626-3007

Technical Assistance Team

Designation Pathways

- Standard Pathway
    - 2 foundational categories plus 6 special focus categories
    - 7 pre-requisite credits
- Modified Pathway
    - 4 pre-requisite credits plus 4 special focus categories
- Regional Organization Pathway
    - 6 pre-requisite credits plus 5 special focus categories

Designation Structure

- ❑ Complete 3 prerequisites
- ❑ 20 points in Permitting
- ❑ 20 points in Planning/Zoning
- ❑ 60 total points

- ❑ SolSmart Bronze
- ❑ Complete 2 prerequisites
- ❑ 100 total points

- ❑ SolSmart Silver
- ❑ Complete 2 prerequisites
- ❑ 200 total points

Designation Criteria

- Designation is comprised of 95 unique credits in 8 different categories that aim to improve local solar markets

Permitting

Action	Points	We've done this!	Documentation
P-1: Post an online checklist detailing the required permit(s), submittals, and steps of your community's permitting process for small rooftop solar PV (Required).	Req'd	☐	Share link:
P-2: Post an online statement confirming a three-business day turnaround time for small rooftop solar PV (Required for Gold).	20	☐	Share link:
P-3: Distinguish between solar PV systems qualifying for streamlined and standard permit review.	5	☐	Share link:
P-4: Require no more than one permit application form for a small rooftop solar PV.	5	☐	Share link:
P-5a: Review permit fees for residential and commercial solar PV. Compile findings in a memo.	5	☐	Share link:
Earn additional points: P-5b: Demonstrate that residential permit fees for solar PV are $400 or less.	5	☐	Share link:
Earn additional points: P-5c: Demonstrate that commercial permit fees for solar PV are based on cost-recovery and capped at a reasonable level so fees do not become a net revenue source. (e.g. fees cover the cost of the staff time required to review and process the permit application).	5	☐	Share link:
P-6: Process small rooftop solar PV permits in 10 business days or fewer.	10	☐	Share link:
P-7: Adopt a standard solar PV permit application form aligned with best practices (e.g. Solar ABCs).	10	☐	Share link:

Planning, Zoning and Development Regulations Cont.

Action	Points	We've done this!	Documentation
PZD-1a: Review zoning requirements and identify restrictions that intentionally or unintentionally prohibit solar PV development. Compile findings in a memo. (Required). Examples include: height restrictions, set-back requirements, screening, etc.	Req'd	☐	Share link:
Earn additional points: PZD-1b: Present PZD-1a memo findings to planning commission or relevant zoning body.	5	☐	Share link:
Earn additional points: PZD-1c: Draft proposed language for changes to zoning code based on PZD-1a memo and PZD-1b dialogue. Involve planners and/or local zoning experts in the creation of the draft language.	5	☐	Share link:
PZD-2a: Post an online document from the Planning/Zoning Department that states accessory use solar PV is allowed by-right in all major zones (e.g. via a zoning determination letter). (Required for Silver, unless PZD-2b is achieved. If PZD-2b is achieved, PZD-2a is not necessary.)	0 Req'd for Silver	☐	Share link:
PZD-2b: Codify in the zoning ordinance that accessory use solar PV is explicitly allowed by-right in all major zones. Zoning ordinance language should not include intentional or unintentional barriers to accessory use solar, such as limits to visibility from public rights-of-way, excessive restrictions to system size, glare studies, subjective design reviews, and neighbor consent requirements. (Required for Gold; optional for Silver.)	20 Req'd for Gold	☐	Share link:

Special Focus: **Inspection**

Action	Points	We've done this!	Documentation
I-1: Train inspection staff on best practices for permitting and inspecting solar PV and/or solar and storage systems. Training must have occurred within the past five years. (Required for Silver and Gold).	20	☐	Share link:
I-2: Require no more than two inspections for accessory use solar PV.	10	☐	Share link:

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Pre-requisite Credits

- PR-1: Provide a solar statement. Communities interested in pursuing SolSmart designation must indicate their commitment to supporting solar development in their community and their desire to participate in the designation process.
- P-1: Post an online checklist detailing the required permit(s), submittals, and steps of your community's permitting process for small rooftop solar PV (Required).
- P-2: Post an online statement confirming a three-business day turnaround time for small rooftop solar PV (Required for Gold).
- PZD-1a: Review zoning requirements and identify restrictions that intentionally or unintentionally prohibit solar PV development. Compile findings in a memo. (Required).
- PZD-2a: Post an online document from the Planning/Zoning Department that states accessory use solar PV is allowed by-right in all major zones (e.g. via a zoning determination letter). (Required for Silver, unless PZD-2b is achieved. If PZD-2b is achieved, PZD-2a is not necessary.)
- PZD-2b: Codify in the zoning ordinance that accessory use solar PV is explicitly allowed by-right in all major zones. Zoning ordinance language should not include intentional or unintentional barriers to accessory use solar, such as limits to visibility from public rights-of-way, excessive restrictions to system size, glare studies, subjective design reviews, and neighbor consent requirements. (Required for Gold; optional for Silver.)
- I-1: Train inspection staff on best practices for permitting and inspecting solar PV and/or solar and storage systems. Training must have occurred within the past five years. (Required for Silver and Gold).

SolSmart Program Guide

- Solsmart.org/edia/Solsmart-Guide-2019.pdf

Permitting

P-1: (Bronze Requirement): Post an online checklist detailing the required permit(s), submittals, and steps of your community's solar PV permitting process	Req'd	☐
Recommended Verification:		
Verification Link(s):		
Verification Documents(s) to Upload: Yes ☐ No ☐		
Comments:		
Recommended Verification Documentation: • Provide link to online permitting checklist. Documentation is acceptable if the checklist applies to at least the expedited permit process for solar.	Resources: • Solar Ready KC, Streamline Permitting: Best Management Practices for Solar Installation Policy • City of Portland (Oregon) Bureau of Development, Oregon Residential Solar Permitting Checklist	
P-2: (Gold Requirement): Post an online statement confirming a three-day turnaround time for small rooftop solar PV	20	☐
Verification Link(s):		
Verification Documents(s) to Upload: Yes ☐ No ☐		
Comments:		
Recommended Verification Documentation: • Upload or provide link to document or webpage outlining a streamlined permitting pathway for small PV systems of less than three days.	Resources: • Interstate Renewable Energy Council, Sharing Success: Emerging Approaches to Efficient Rooftop Solar Permitting • Interstate Renewable Energy Council, Simplifying the Solar Permitting Process: Residential Solar Permitting Best Practices Explained	

Technical Assistance

- SolSmart TA providers work with elected officials, local government staff, and community members to help communities update processes using established best practices
- Funded by SolSmart, no-cost to the community
- Communities need to commit staff time to working with SolSmart
- Communities must demonstrate a commitment to achieving designation
- TA Delivery
  - Online – resource library, email, webinars, templates
  - Phone – conference calls
  - In person – site visits, technical workshops

Technical Assistance Templates

PZD-1a Zoning Review

Community:

PZD-1a: Review zoning requirements and identify restrictions that intentionally or unintentionally prohibit solar PV development. Compile findings in a memo. (Required for Bronze)

To assist your community, the national solar experts at SolSmart have conducted a review of your community's zoning code to assess possible barriers (i.e. height restrictions, set-back requirements, etc.) and gaps related to solar PV development. Below, please find the outcome of their review. By reading the narrative, reviewing the example code language provided, and signing the statement at the bottom of the page, your community will satisfy the PZD-1a pre-requisite and be one step closer to achieving SolSmart designation.

Positive Elements in Current Code

Potential Barriers in Current Code

The [ ] is silent on the development and use of solar energy systems. It is difficult to interpret if any of the current language in the [ ] is a barrier to solar energy systems without specific references.

OR

Section	Element	Priority
Review Comment		
It is a best practice to		
Examples		

Potential Gaps in Current Code

Element	Priority
Definition	High. The definition forms the basis of understanding for any forthcoming solar ordinance.
Review Comment	
Solar energy systems are not defined. Consider adding a definition with distinctions between roof-mounted and ground-mounted and small, medium, and large solar energy systems to provide clarity and a foundation on which to base levels of review and permits required.	
Examples	
More permissive: "Solar Energy System: An energy system that consists of one or more solar collection devices, solar energy related 'balance of system' equipment, and other associated infrastructure with the primary intention of generating electricity, storing electricity, or otherwise converting solar energy to a different form of energy. Solar energy systems may generate energy in excess of the energy requirements of a property if it is to be sold back to a public utility in accordance with the law." (Renewable Energy Ordinance Framework, DVRPC) Less permissive:	

Space for Logo and/or Contact information:

Office/Department
Room
Address
City, State, Zip Code
Phone Number
Email Address
Website

Solar Photovoltaic (PV) System Permitting Checklist

The basic, pre-submittal checklist below contains the minimum information and project plan details required to be submitted to [community name] when applying to install a solar photovoltaic (PV) system (residential or small commercial). The intent of using the checklist is to provide transparent and well-defined information to minimize the number of required revisions and expedite the application and review process.

Required Permits

- Residential
  - Electrical Permit
  - Building Permit
  - Zoning Permit
- Commercial
  - Electrical Permit
  - Building Permit
  - Zoning Permit

A completed building permit application and electrical permit application is required to start the process of getting your permit. Please print out the applications you need, fill out completely, and bring them to the Building Safety Department at the Blacksburg Motor Company Building, 400 S. Main St., Blacksburg. You may also fax it to XXX-XXX-XXXX or email it to [email address].

Additional Required Documents

Construction Drawings (Residential and Commercial)

- Two (2) copies of plans showing PV array configuration, wiring system, overcurrent protection, inverter, disconnects, required signs, AC connection to building, and attachment detail for roof mounted or footing details for ground mounted.

Spec Sheets & Installation Manuals (Residential and Commercial)

- Include specification sheets and installation manuals for all manufactured components including, but not limited to PV modules, inverters, combiner box, disconnects, and mounting system.

Permit Fees

We need to determine what fees are applicable to solar installations and add table with information/formula.

Complete fee information can be found in [chapter, section, etc] of the [community name] Code of

Nicholas Kasza
Please link to applicable forms.

Nicholas Kasza
Please link to applicable forms.

Nicholas Kasza
Please confirm if both these permits are required or if only electrical is needed.

Nicholas Kasza
Please confirm that applications for solar systems can be emailed or faxed? If not, we should remove this information.

Nicholas Kasza
Please make a note which, if any, construction documents need to be engineer stamped, how many copies of the documents are needed, and what other additional documentation is required for a permit application.

Nicholas Kasza
Edit as necessary

Nicholas Kasza
If applicable information is found in the Code of Ordinances you can link to that information here.

SolSmart Website Resources

- Solsmart.org/permitting
- Solsmart.org/solar-energy-a-toolkit for local governments

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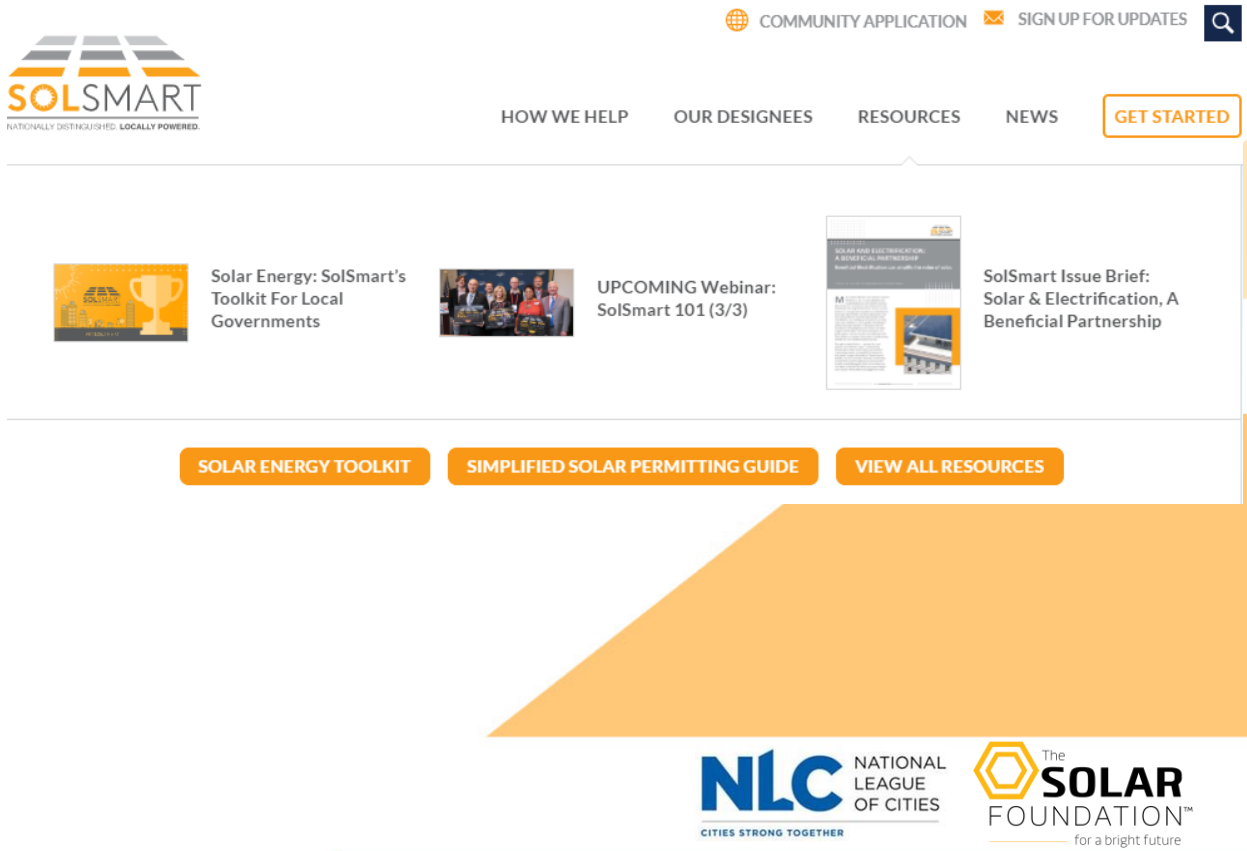


SolSmart Webinars

- Solsmart.org/resources
  - Sort by Webinars
- Best Practices in Solar Planning & Zoning
  - https://www.solsmart.org/resources/best-practices-in-solar-planning-and-zoning-webinar/
- Planning & Zoning Best Practices for Large-scale Solar
  - https://www.solsmart.org/resources/solsmart-webinar-planning-zoning-best-practices-for-large-scale-solar/
- Best Practices for Solar PV Inspection
  - https://www.solsmart.org/resources/solsmart-workshop-best-practices-for-solar-pv-inspection-session-3-inspection/
- How to Develop a Solarize Campaign
  - https://www.solsmart.org/resources/solsmart-webinar-how-to-develop-a-solarize-campaign/
- Solar & Electric Vehicle Best Practices for Local Governments
  - https://www.solsmart.org/resources/upcoming-webinar-7-31-what-local-governments-need-to-know-coordinating-efforts-on-solar-pv-and-electric-vehicles/

Webinars, Planning

SOLSMART WEBINAR: PLANNING & ZONING BEST PRACTICES FOR LARGE-SCALE SOLAR

Related Criteria:

- PZD-9

VIEW NOW

Webinars, Community Engagement

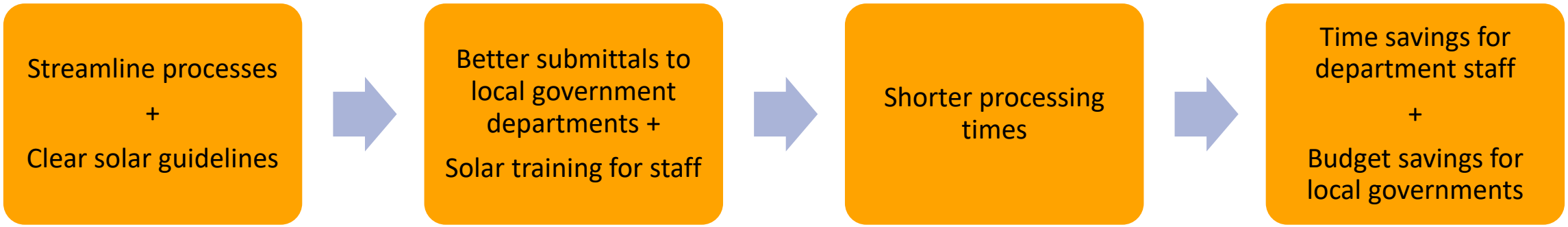
SOLSMART WEBINAR: HOW TO DEVELOP A SOLARIZE CAMPAIGN

Related Criteria:

- CE-4a

VIEW NOW

Technical Assistance Objectives



- Increase Transparency
  - Post a permitting checklist online
  - Post a solar landing page
- Increase Understanding
  - Provide training to permitting and inspection staff on solar PV best practices
  - Provide training to planning and zoning staff on the latest land use practices
- Reduce Barriers
  - Decrease permit turnaround time
  - Codify solar PV as a by-right/allowed accessory use

Submission Process and Requirements

- Consultation call with SolSmart staff
- Establish your community's solar baseline by using the SolSmart scorecard/application
- Work with technical assistance providers to complete necessary credits (for at least bronze designation)
- Gather proper documentation to verify a credit has be achieved
    - Link
    - Memo
    - Policy Document
- Submit for designation through SolSmart's online process
    - TA providers can help you here too!

Toyah Barigye

Senior Project Manager at The Solar Foundation

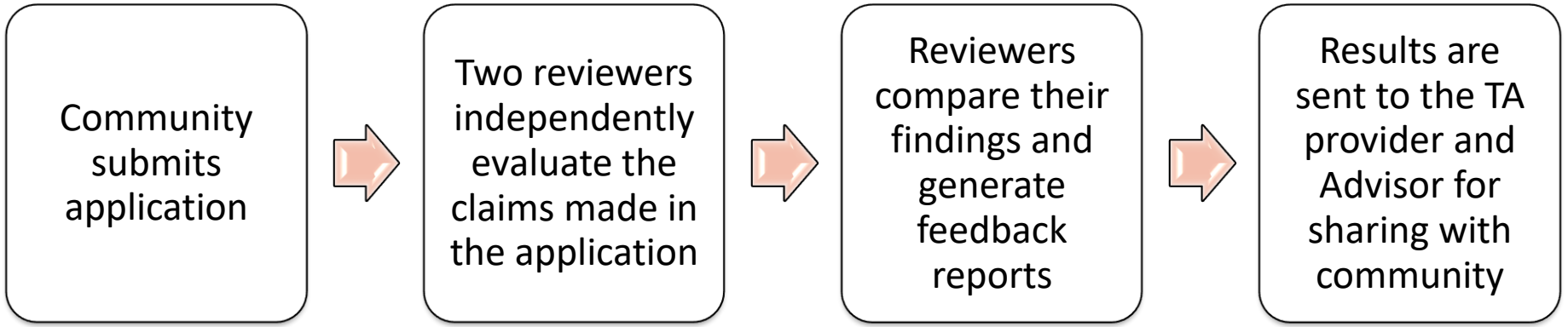
tbarigye@solarfound.org

202-866-0933

Designation Review Process

- Ensure that applicants are **evaluated fairly**
- Ensure that the SolSmart designation **is meaningful, robust, and highly valued**
- Provide **input regarding possible improvement** to solar policies
- Discover particularly **noteworthy accomplishments** to highlight for press releases

Review Process



Documentation Rules of Thumb

Specific
- Clearly meet intention of credit
- Include information that credit requires

Relevant
- Closely align with wording of credit
- Immediately understandable and related to credit intent

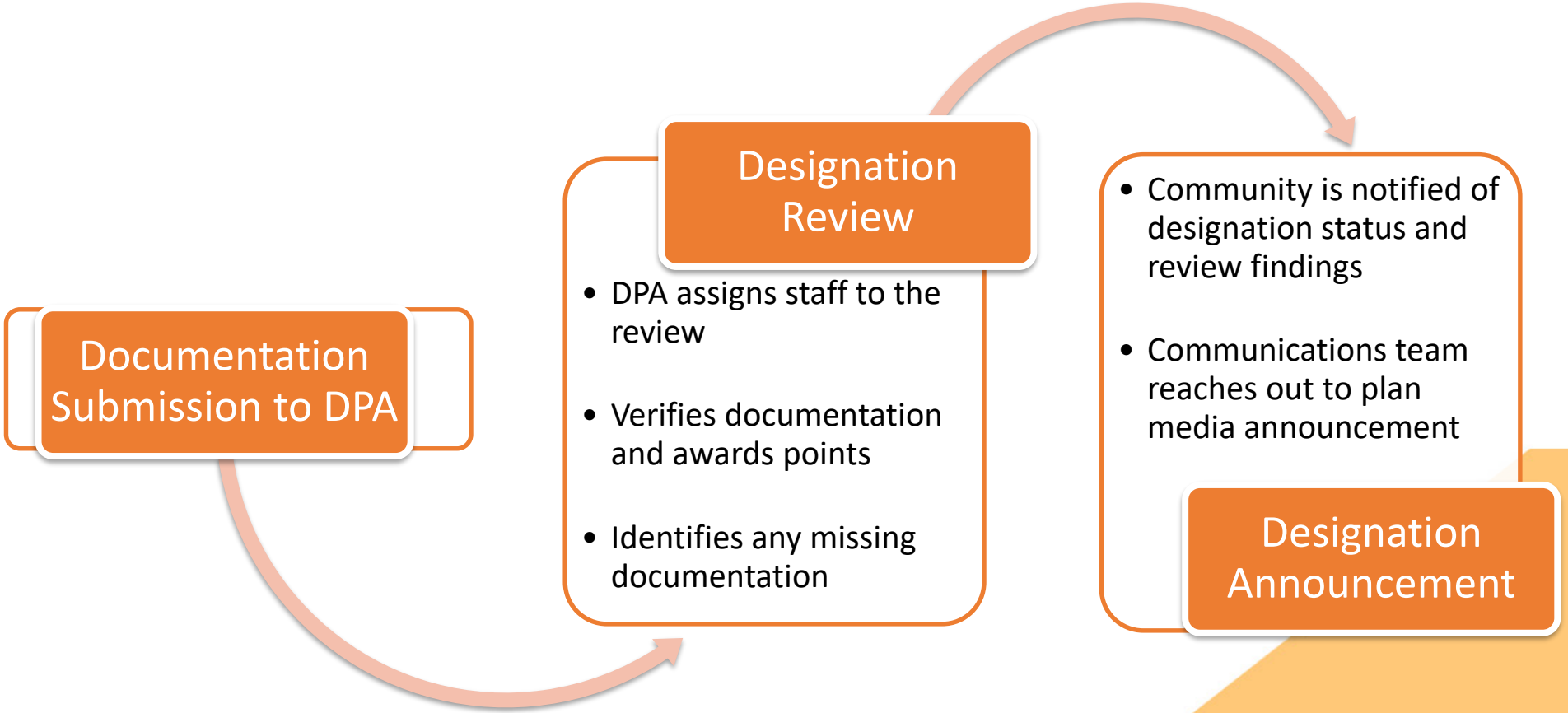
Recent
- Meets time requirement of credit or still clearly relevant to community's goals and actions today

- Memos should identify:
  - **When** the action took place
  - **Who** was involved or attended
  - Relevant **outcomes**
  - **Why** the action fulfilled intention of the credit

Documentation: Common Mistakes

- Attaching **no documentation**
- Attaching a **large document** (example: the full zoning code or a 50+ page planning document) **with no accompanying comments** about where to look for specific language or context for the document.
- **Providing a link to a website with no accompanying information** about where to look for specific language, or sometimes it's unclear how the website URL is used or accessed by community members.
- Providing a document, like a permit page or hand out, **without clearly describing how that document is accessed/used by the public or how it fits into an overall process**. This is particularly important for the credits that specify that the information is made available to the public. The DPA team needs to know how this occurs.

First Submission process



Review Output

SOLSMART APPLICATION PREREQUISITE SU

Atlanta - Overall

Bronze Requirements	Validation Status
PR-1: Solar Statement	Done
P-1: Solar Permitting Checklist	Done
PZD-1: Zoning Review Memo	Done
20 points in Permitting	Done
20 points in Planning Zoning and Development Review	Done
20 points in Special Focus Categories	Done

Silver Requirements	Validation Status
Bronze Designation requirements	Done
PZD-2: Allow solar by-right and as an accessory use in all major zones	Done
I-1: Provide cross-training of inspection and permitting staff on solar PV	Incomplete
100 points	Done

Gold Requirements	Validation Status
Silver Designation requirements	Incomplete
P-2: Provide a streamlined permitting pathway for small PV systems (no more than 3 days)	Done
200 points	Incomplete

Review Output Cont.

% of total points available achieved in each category	
Permitting	27%
Planning /Zoning	32%
Inspection	13%
Construction	0%
Solar Rights	0%
Utility Engagement	14%
Community Engagement	15%
Market Development & Finance	10%

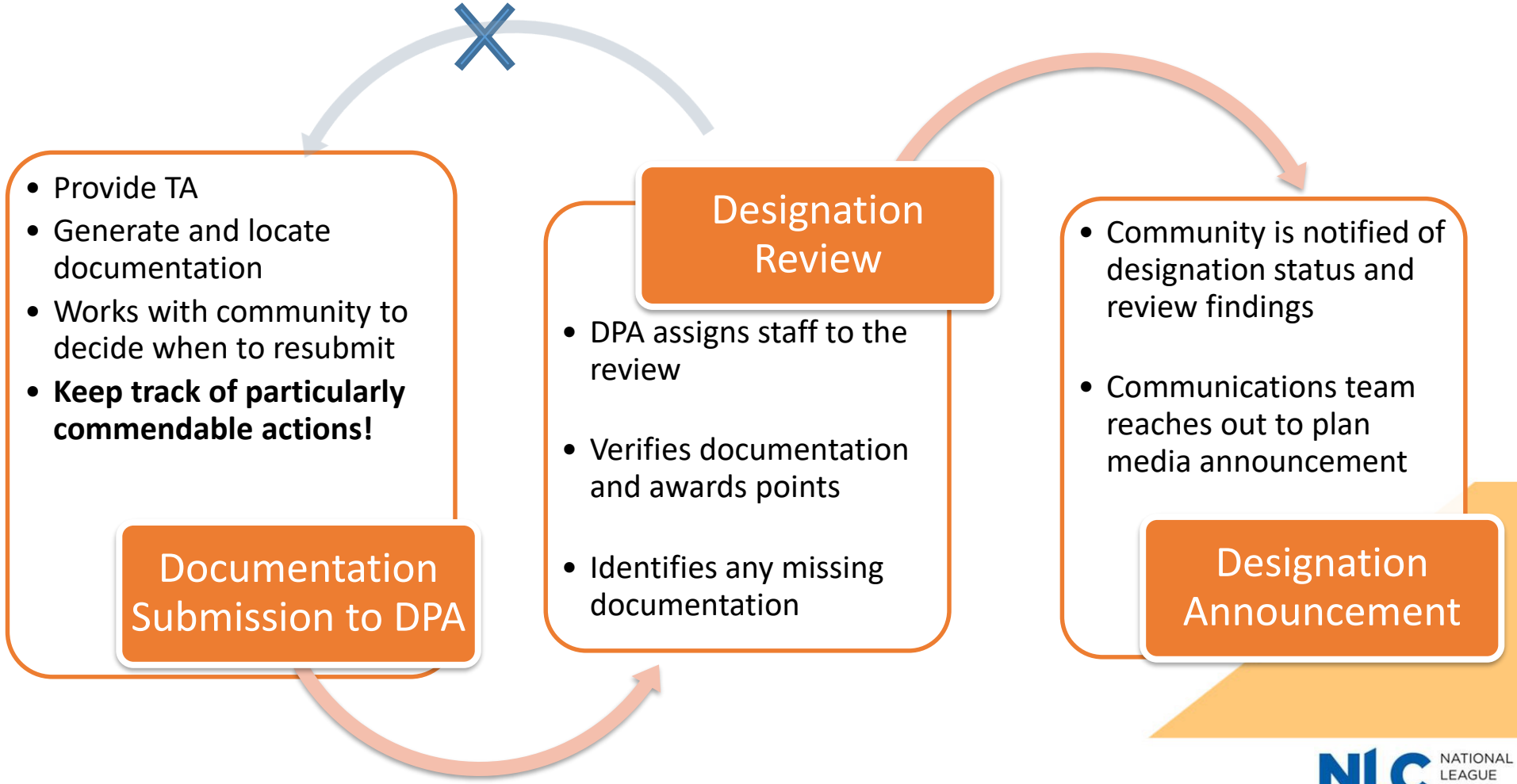
Credit Summary

I-4: Make inspection requirements for PV available online. (10 points)	Credit Awarded	Document provides inspection requirements.
I-5: Have a fixed time frame between inspection requests and scheduling of inspections of no more than 10 days. (10 points)	Not Awarded	Documentation not provided. Page 21 of "Go Solar Online Permitting Systme: A Guide for Applicant" there is no timeline associated with inspection scheduling.
SR-1: Conduct review of state policies related to protecting rights of property owners to install solar and solar system owners' right to sunlight on their property. Make this information available to residents. (5 points)	Credit Awarded	Information available to public through "advertisement notice slips".
SR-2: Provide consumer protection resources on solar. (5 points)	Credit Awarded	Consumer resources found through Broward Go Solar webpage.
SR-5a: Engage homeowners' and neighborhood associations and discourage unnecessarily restrictive requirements for PV through meetings with leadership.(10 points)	Credit Awarded	Presentation engaging the HOAs about solar energy installation.
U-1: Review best practices for integrating interconnection with electrical inspections and share best practices with staff. (5 points)	Credit Awarded	Document shows Best Practices for Net Metering and Interconnection Standards

Reasons a Credit May Be Declined

- It does not fulfill the credit requirements
- It is not clear whether the outcomes or policies fulfill the credit requirements (not enough detail provided)
- Documentation is insufficient

Resubmission Process



Promoting a Community Designation

Designation Notification

- Each time your community achieves a level of designation, the DPA team will send your community an official notification of their designation.
- Designee Communications Toolkit – your community will receive a toolkit that corresponds with their designation level (Bronze, Silver, or Gold).
- Community receives notification of designation announcement and any corresponding event

Designation Promotion

- Designated communities will be invited to take place in a designation event/activity. The program will also announce designations through a variety of digital channels
- Advisors will also help communities announce and promote their designation

Daniel Falk

Project Manager at The Solar Foundation

dfalk@solarfound.org

202-866-0890

Case Study: West Palm Beach, FL

West Palm Beach

- West Palm Beach became the first city in the state of Florida to offer a one day permitting turnaround by setting up an expedited one-day solar permitting process for PV systems of 10 kW or less
- The city has added 665 kW of solar energy since mid-2018
    - This represents a growth of 50% within a year

West Palm Beach's SolSmart Path

- Gold Designation on 1/23/2018
- The SolSmart Program worked with West Palm Beach to ensure that businesses and residents were able to be approved for solar PV arrays quicker than ever before.
- Provided clear guidance for solar in historic and special use districts
- Provided Property Assessed Clean Energy (PACE) financing for solar energy projects
- Earned special awards for work in the areas of Permitting and Inspection criteria

Case Study: Anchorage, AK

Anchorage

- Anchorage has seen a 1000% increase in the number of solar systems installed since 2015
- Anchorage's 77 kW rooftop solar array at William A. Egan Civic and Convention Center is expected to save over $20,000 in electricity rates and will pay for itself in less than 8 years
- The city adopted its first climate action plan in the summer of 2019

Anchorage's SolSmart Path

- SolSmart designation was included as part of the city's climate action plan
- Bronze Designation on 9/11/2019
- First community designated in the state of Alaska
- Created an online permitting checklist, increasing transparency for community members and solar installers
- Reviewed local zoning codes and identified restrictions that intentionally or unintentionally prohibit solar PV development
- Earned special awards for work in the area of Inspection criteria

Q&A