

Simplifying the Solar Permitting Process

Residential Solar Permitting Best Practices Explained

To aid communities in designing effective and efficient solar permitting processes, the Interstate Renewable Energy Council, Inc. (IREC) and The Vote Solar Initiative have identified nine [Residential Solar Permitting Best Practices](#). This document provides additional context for these Best Practices and relevant resources to help communities implement them. For more detail on the examples of where the Best Practices listed below have been implemented as well as additional resources see [Sharing Success: Emerging Approaches to Efficient Rooftop Solar Permitting](#).

1. Post Requirements Online

What does this mean? The municipality should have a website that offers a one-stop location for residents, businesses and installers to get all necessary information on obtaining a solar permit in that municipality or region. In particular, the website should include a clear description of the requirements and process for getting a solar permit, including any necessary forms, and information on fees and inspections. The website could also contain checklists for the application and inspection requirements for solar.

Who is already doing it?

Solar One Stop (Pima County and City of Tucson, Arizona), solaronestopaz.org

San Jose, CA, www.sanjoseca.gov/index.aspx?nid=1505

Berkeley, CA, www.cityofberkeley.info/solarpvpermitguide

Why do it? Making these resources easily accessible to solar installers can reduce the number of questions that municipal staff have to answer and can improve the efficiency of the permitting process for all involved. In addition, it can help to increase the quality of applications submitted, which in turn decreases the time required for review. It also decreases the frustrating back-and-forth that installers and municipal staff may otherwise experience. Providing these resources can be particularly helpful for new installers or those that are new to that specific municipality. If a municipality has unique or unusual requirements, or has recently modified their process or requirements, the website is a good way for the municipality to identify these differences clearly to installers and residents.

Additional Resources

IREC Solar Permitting Checklists and Guidance Documents, www.irecusa.org/wp-content/uploads/permitting-hand-outv6-1.pdf

IREC Inspection Checklist (coming soon)



Interstate Renewable Energy Council, Inc.



THE
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2. Implement an Expedited Permit Process

What does this mean? If they meet clearly defined review requirements, the majority of small residential PV systems can be processed quickly, ideally over-the-counter or electronically within one day. There are several ways to accomplish such expedited treatment, including through pre-qualification for certain systems, plans or installers. The Expedited Permit Process for PV Systems from the Solar America Board for Codes and Standards (Solar ABCs), which provides a framework for expedited review for typical residential systems, has proven especially popular and effective. Regardless of the method chosen, we recommend that the permitting requirements, including the permit form itself, should be made **consistent** regionally and, to the extent possible, statewide or nationally.

Who is already doing it?

New York State Unified Solar Permit, ny-sun.ny.gov/Local-Community-Tools (system pre-qualification, modeled on Solar ABCs)

Honolulu, HI, Materials and Methods Approval (pre-qualified plans), <http://www.irecusa.org/wp-content/uploads/Sharing-Success-final-version.pdf> (pp. 27-28)

San Diego, CA (pre-qualified templates), <http://www.sandiego.gov/development-services/homeowner/residentialsolar/index.shtml>

Why do it? Expediting the process can save both installers and municipalities time and money. Installers receive their permit more quickly, and can move forward with installing the project and soliciting additional projects sooner. Municipalities do not have to waste valuable staff time reviewing projects that do not require more intensive review. While these procedural improvements are sometimes specific to solar, they are often implemented more broadly such that all permit applicants can benefit.

Additional Resource

Solar ABCs Expedited Permit Process for PV Systems (model process and forms, widely adopted), available at www.solarabcs.org/about/publications/reports/expedited-permit

The implementation of an expedited permit process could be part of the broader implementation of online permit processing (Best Practice #3). It could also result in the achievement of a fast turn-around time for permits (Best Practice #4).

3. Enable Online Permit Processing

What does this mean? Submittal, review and approval of solar permits should be possible via email or a website, with no trips to the municipal office required for most permits. Implementation of this Best Practice could range from a simple email-based solution to a fully online permitting system.

Why do it? An online permitting system can offer numerous streamlining benefits for both installers and municipalities, which vary depending on the sophistication of the system. Generally speaking, when an application and supporting materials are submitted online, municipal staff can immediately access them and do not need to enter the information manually, which saves staff time. Likewise, installers save time and money by not having to submit paper copies or take extra trips to the permitting department. In a more fully online system, once the application has entered the system, multiple personnel may work on reviewing the materials at the same time, and track the review progress and

comments made by different departments. If there is an online web portal that records the path of a permit application through the review process, installers can follow the status of their applications, reducing the number of phone calls and office visits made to obtain the same information. With some systems, applicants can also pay their permit fees online and the city can keep track of the revenue information automatically. While the more sophisticated online permitting systems can entail more significant upfront costs, their benefits can be similarly significant for municipalities and solar installers, as well as other types of permit applicants.

Enabling online permit processing could be part of the implementation of an expedited permit process (Best Practice #2). Similarly, online permit processing could facilitate a faster turn-around time for permits (Best Practice #4).

Who is already doing it?

Sacramento, CA, Sacramento Streamline Program (fully online permitting), www.cityofsacramento.org/dsd/customer-service/sacramento-streamline.cfm

Miami-Dade County, FL, ePermitting Application, <http://bldgadmin.miamidade.gov/building/applications/e-permitting.asp>

City and County of Honolulu, HI, Division of Planning and Permitting Online Building Permit, <http://dppweb.honolulu.gov/DPPWeb/default.aspx?PossePresentationId=3000>

Scottsdale, AZ, Digital Plan Submittal, <https://eservices.scottsdaleaz.gov/eServices/PlanReview/default.aspx>

4. Ensure a Fast Turn Around Time

What does this mean? Obtaining a PV permit should require no more than one visit to the building department for properly completed applications. In addition, we recommend allowing for over-the-counter permit review, which allows permits to be processed and approved on the same day the installer visits the permitting office with a completed permitting application. If this is not possible, we recommend a turn-around time of less than three days.

Why do it? Travel to and from the building department can be one of the most cost-intensive parts of the permitting process for installers. Reviewing permits is labor- and cost-intensive for municipalities, as well. Expediting the process in some way can save both installers and municipalities time and money. While no more than one trip to the permit office for applicants is the goal of this Best Practice, if an expedited permit process is implemented in tandem with online permit processing, it may be possible to avoid visiting the office entirely for some permits. While these procedural improvements are sometimes specific to solar, they are often implemented more broadly such that all permit applicants can benefit.

Who is already doing it?

Scottsdale, AZ, www.scottsdaleaz.gov/bldgresources/planreview/sfr_review

San Jose, CA, www.sanjoseca.gov/index.aspx?nid=1505

Santa Clara, CA, santaclaraca.gov/index.aspx?page=2447

A fast turn-around time for permits could be achieved through an expedited permit process (Best Practice #2) or by enabling online permit processing (Best Practice #3).

5. Collect Reasonable Permitting Fees

What does this mean? Fees should fairly reflect the time needed for city staff to review and issue a permit. They should remain relatively consistent regardless of system size and are often not proportional to the materials cost of a solar installation, in contrast to other types of projects. A flat fee of \$400 or less is reasonable for a residential solar permit.

Who is already doing it?

Colorado (Fair Permit Act, 2011)

Arizona (House Bill 2615, 2008)

Why do it? A key way for municipalities to pay for the permitting services that they provide is to assess fees for the issuance of permits. Therefore, it is critical that permit fees cover the time it takes to review and issue permits so that municipalities have adequate staff and resources to meet the demands of permit applicants. At the same time, it is also important that municipalities make their permitting processes as efficient as possible, for example by adopting the other Best Practices, which in turn should keep fees reasonable. As far as calculation of the appropriate fee and fee cap, using a flat-fee method instead of a value-based method to assess permit fees streamlines the process and ensures that larger solar energy systems are not arbitrarily penalized. Because of the high cost of solar hardware, the typical value-based method often results in an inflated fee that does not reflect the actual staff time required. In the end, it is important to recognize that the municipality's role in permitting is valuable. Payment of a reasonable permit fee that compensates the municipality for its time and labor may actually aid in the long-term sustainability of the rooftop solar market.

Additional Resource

Sierra Club (Loma Prieta Chapter) Fee Calculator, lomaprieta.sierraclub.org/climate-action/solar_permit_fees

6. Do Not Require Community-Specific Licenses

What does this mean? If a municipality institutes a local-level permitting license or certification, it should accept the North American Board of Certified Energy Practitioners (NABCEP) PV installer and solar thermal certification in lieu of community-specific solar licenses. The goal of this Best Practice is statewide uniformity in any contractor licensing requirements, with no variation at the local level, either using NABCEP or possibly other statewide requirements. If a license is determined to be necessary, NABCEP is preferred in order to encourage national [consistency](#), as well.

Who is already doing it?

Colorado (NABCEP or other nationally recognized organization), <http://cdn.colorado.gov/cs/Satellite/DORA-Reg/CBON/DORA/1251614750513>

California (statewide contractor licensing requirements), www.cslb.ca.gov

Why do it? Encouraging statewide uniformity in any contractor licensing requirements allows installers to operate in more than one municipality without spending time and money to understand and obtain multiple licenses for each municipality. Consistency in licensing requirements could be accomplished via statewide legislation or via voluntary implementation of NABCEP at the local level in place of a unique local license. Such consistency with respect to licensing as well as other requirements

is important to efficient permitting. In addition, developing a local licensing requirement is time and cost intensive for individual municipalities. Ultimately, however, IREC and Vote Solar recognize that it is critical for municipalities to ensure safe solar installations, and that contractor licensing can help to promote that. While specific licensing may not be necessary in all markets, where needed, the NABCEP standards are widely respected and they offer the only program in the country certified by the American National Standards Institute (ANSI).

Additional Resource

North American Board of Certified Energy Practitioners (NABCEP), www.nabcep.org

7. Offer a Narrow Inspection Appointment Window

What does this mean? Ideally, installers should be able to schedule an appointment for an inspection at a precise time. When this is not possible, inspection appointments should be kept at or below two hours. We also recommend that inspectors notify contractors as the inspector nears the site as an additional way of reducing waiting time for both installers and inspectors.

Why do it? Keeping the windows for inspection appointments at or below two hours can benefit both installers and inspectors. It reduces the amount of costly installer time spent waiting for inspectors to arrive. In addition, it lessens the chance that an inspector will arrive and find the installer unprepared to undergo the inspection. If the inspector provides a two-hour or shorter time window, and notifies the installer close to the time of arrival, it can help to ensure that the installer is there and ready for the inspection. In this way, it avoids wasting the inspector's time as well. Taking advantage of the ubiquity of cellphones and Internet access, jurisdictions have developed a variety of new methods for scheduling inspections and enabling shorter windows.

Who is already doing it?

Miami-Dade County, FL (as part of its ePermitting process), <http://www.miamidade.gov/building/permits/contractor-e-permitting.asp>

Livermore, CA (online scheduling, one-hour window), www.cityoflivermore.net/citygov/cd/permits/inspections.asp

8. Eliminate Excessive Inspections

What does this mean? We recommend requiring only one inspection by the local government for standard rooftop systems on existing homes or businesses.

Why do it? Numerous jurisdictions have found that they can safely permit solar systems without requiring more than one inspection, often by rolling inspection of electrical, structural and fire safety together. Eliminating reviews that do little to validate the safe and efficient operation of

Who is already doing it?

Boston, MA, www.cityofboston.gov/climate/solar.asp

Scottsdale, AZ, www.scottsdaleaz.gov/bldgresources

Santa Clara, CA, <http://siliconvalleypower.com/index.aspx?page=1953>

a proposed PV system—for example, plan checks with aesthetic criteria, or certain rough or in-process inspections—removes unnecessary costs and expedites permit issuance. For rough or in-process inspections in particular, the installer’s work crew has to be put on hold while the inspection is scheduled and completed. This creates scheduling and staffing challenges for solar installers, who in certain cases might otherwise be able to complete installation in one day. For municipalities, requiring only one inspection can free-up inspectors to be more thorough on other job sites and possibly reduce the need to rely on third-party inspectors in overflow periods. Resources exist to train inspectors to do a thorough inspection without requiring an in-process inspection.

Additional Resources

Field Inspection Guidelines for PV Systems (model), www.irecusa.org/wp-content/uploads/2010/07/PV-Field-Inspection-Guide-June-2010-F-1.pdf

IREC Inspection Checklist (coming soon)

9. Train Permitting Staff in Solar

What does this mean? Municipalities should make full or half-day workshops available to relevant staff. Trainings should be available to building department plan check and review staff, and inspectors. Training should be kept up-to-date as solar technologies evolve.

Why do it? Training building department staff to review permits for compliance with electrical and building codes and to perform standard fire department checks reduces the time and resources spent by both the municipality and the applicant. Although it may entail an up-front investment in staff time, such training leads to a more educated staff that can more efficiently review solar permits, and save time and money in the long run. Proper training also ensures that municipal staff can apply technical standards consistently to ensure safe installations. Such training is especially critical in municipalities seeing or anticipating an influx of solar permit applications. From an installer’s perspective, it is easier and more efficient to interact with a municipal staff familiar with solar and its requirements. Numerous sources offer training at low or no cost.

Additional Resources

Photovoltaic Online Training (PVOT) for Code Officials (free online training),<http://www.pvonlinetraining.org/>

Solar Instructor Training Network (SITN), www.irecusa.org/workforce-education/solar-instructor-training-network

IREC Training Directory (coming soon)

For more information on solar permitting best practices visit www.projectpermit.org or www.irecusa.org/regulatory-reform/permitting, or contact:

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