solarpermit.ORG
The National Solar Permitting Database

Clean Power Finance

Nationwide Solar Permitting Study

Executive Summary of Clean Power Finance's study of solar permitting and the obstacle it poses to the widespread adoption of residential solar.

In 2012, Clean Power Finance completed a study of 273 solar installers in the top 12 states encompassing more than 90% of residential solar market. The largest study of its kind, it set the stage for the development of SolarPermit.org. The goal was to assess current challenges with solar permitting and identify specific opportunities for improvement among the various authorities having jurisdiction (AHJs), such as cities and counties, that hold approval power in the completion of solar projects. Key findings include:

More than 1 in 3 installers avoid selling solar in an average of 3.5 jurisdictions because of associated permitting difficulties. Complex permitting processes present significant barriers to the adoption of solar in communities that would otherwise be viable for solar. Furthermore, these processes can severely limit competition from potential entrants or upstarts and give incumbent installers unfair market power to keep prices high at the expense of residents in those communities.

Resubmissions of plans occur in 24% of all installations and rework in 16% of all installations, respectively. Resubmissions and rework may add hundreds and potentially thousands of dollars to the cost of an installation, most of which are absorbed by the installer. However, resubmissions and rework are also costly to AHJs; they tie up personnel time and disrupt internal processes, the costs of which are not always captured in the permitting fees or acknowledged by a frustrated solar industry.

An average installation requires nearly 8 weeks to be processed by all relevant jurisdictions; staff times for installers, however, average just 14.25 hours. A drawn-out permitting process can cause cash flow challenges for installers, since most installers must make large upfront equipment purchases for each installation. For an installer that sells one solar system a month, a two-month permitting process will mean that $20,000 or more will be tied up in inventory. Poor cash flow management is the leading cause of failure among small businesses. Most installers are small businesses.

13% of installations see requirements change during the installation process. Interpretations and applications of existing permitting rules can change or vary depending on which jurisdiction staff member is enforcing them. Since most jurisdictions lack the communication channels to notify the relevant project stakeholders, requirement changes typically lead to resubmission and rework.

11% of installations encounter a situation where requirements for solar permitting have not even been set. Many AHJs' policies and processes have not been updated to manage a solar market that, until recently, was essentially non-existent in most areas. Even if an AHJ wants to accommodate solar, the AHJ may not know what codes or standards to apply and what resources are available to them.

Deadweight Loss to Society

Many solar industry pundits compare the economic consequences of complex or inefficient permitting practices to a tax on solar. Unnecessary permitting costs are actually worse than a tax; they result in what economists term "deadweight loss," or an economic inefficiency that reduces the overall welfare of society. A tax suggests that AHJs are making income from solar permitting. Difficulties with solar permitting, however, are costly to both AHJs and solar businesses. Neither sides wins. Moreover, the public loses out because unreasonable permitting costs reduce consumer access to solar.

The Path Forward

AHJs vary from being accommodating to being very resistant to solar. The study suggests that most AHJs are not aware of the problem or do not how to address it. Mandating on a federal level that jurisdictions adopt solar-friendly policies can be counterproductive, especially if jurisdictions have not recognized the need for such policies or believe the solution will be costlier than the problem. Addressing this problem will require three equally essential steps:

1. Raise awareness of the problem among AHJs.
2. Identify specific areas or process steps that both installers and AHJs can improve.
3. Offer solutions that can be readily adopted.

SolarPermit.org

SolarPermit.org hosts the National Solar Permitting Database, which Clean Power Finance developed with support from a $3MM grant from the U.S. Department of Energy Sunshot Initiative. It offers a vehicle for change. This free, online database of information related to solar permitting requirements of cities and counties across the country organizes and simplifies solar permitting processes by compiling the information in a single location. Using the community-based platform, users of the database keep the information up-to-date and relevant. The strategic objectives of SolarPermit.org are:

- To be the collective voice of the solar industry and be able to identify the AHJs that face significant permitting challenges. It is the only consolidated, efficient way for AHJs to communicate with solar professionals or with each other. SolarPermit.org will serve as a forum for discussion and communicating updates to current requirements.
- To collect and disseminate data on specific aspects of AHJs processes, allowing both AHJs and the solar community to pinpoint areas for improvement (e.g., fees, process times, permitting forms).
- To act as a channel for sharing best practices and solutions; an AHJ that wants to tackle the permitting problem but is unsure of the best way to do so can emulate the practices of a neighboring AHJ that has simplified its processes.

The solar industry has been understandably frustrated with AHJ policies that seem unnecessary and cumbersome. However, public reprimand of AHJs can hurt the solar industry, especially when alternatives or solutions are not offered. AHJs can become defensive or even less transparent with their policies. In the course of this study, Clean Power Finance encountered AHJs that—though tackling the solar permitting problem—refused to share the data for fear of being subject to attacks by the solar industry. A cooperative spirit involving engagement and dialogue with the AHJs will likely be more fruitful, and SolarPermit.org will be the catalyst for such discussions.