

## Permitting Best Practices Make Installing Solar Easier

### Common-Sense Improvements Address Top-Three Permitting Issues

The U.S. solar industry has reached a turning point. While photovoltaic (PV) hardware costs exhibit rapid decline, non-hardware balance of system (BOS) costs such as permitting and inspection have remained relatively constant. The United States comprises more than 18,000 local jurisdictions whose permitting requirements and fees vary widely. The lack of permitting standardization across jurisdictions and inefficient permitting processes create challenges that impede solar deployment across the country.

Permitting reform represents a low-cost, low-risk solution that helps local jurisdictions advance the solar market by addressing the three primary permitting challenges:

1. Complex processes
2. Inconsistency across jurisdictions
3. High permit fees.

Staff from the National Renewable Energy Laboratory (NREL) can help states and local jurisdictions assess permitting processes, standardization approaches across a region, and permit fee options.

## Permitting Best Practices

### Statewide Legislation

*What:* Create a broad standard that remains consistent from jurisdiction to jurisdiction.

*Why:* Eliminates inconsistency across regions and allows for a simplified training process for permitting employees and solar installers statewide.

*Example:* The Fair Permit Act of Colorado passed in May 2011 and extended the \$500 residential cap and \$1,000 nonresidential cap on permits (initiated in 2008 with Senate Bill 117) while closing loopholes to provide process transparency.

### Permitting Checklists

*What:* A step-by-step approach that leads installers and homeowners through the solar permitting process.



*Why:* Offers an educational and organizational tool that reduces errors and inefficiencies while minimizing permit submission and approval time.

*Example:* The city of San Jose, California, created a simple checklist for PV system electrical permits that allows applicants to determine whether their system meets certain criteria so permits can be waived.

### Permitting Templates

*What:* Provide forms that standardize information collected from installers and homeowners.

*Why:* Minimizes applicant confusion and improves permitting office efficiencies and response times.

*Example:* San Jose offers a permitting template to create a more uniform solar ordinance and a standardized inspection process.

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### Limited Inspection Time Windows

*What:* Require inspections in local jurisdictions to occur within a specific timeframe.

*Why:* Reduces permitting process costs, time, and frustration associated with long wait times for inspections.

*Example:* The city of San Jose schedules post-installation inspections during a two-hour window. In many jurisdictions, contractors wait up to eight hours for an inspection.

### Permitting Websites

*What:* Build websites dedicated to the solar permitting process.

*Why:* Creates a one-stop shop where people can access resources, track permits, and increase their understanding of the process.

*Example:* Miami-Dade County, Florida, centralizes solar permitting information through a website dedicated to streamlining solar rooftop installations in the county. The site includes a solar permit guideline, a solar-specific application, an online application process, and a section dedicated to the inspection process.

### Online Permitting

*What:* Allow online permit submission, review, payment, and printing.

*Why:* Eliminates time-consuming travel to permit offices and ensures use of a consistent template.

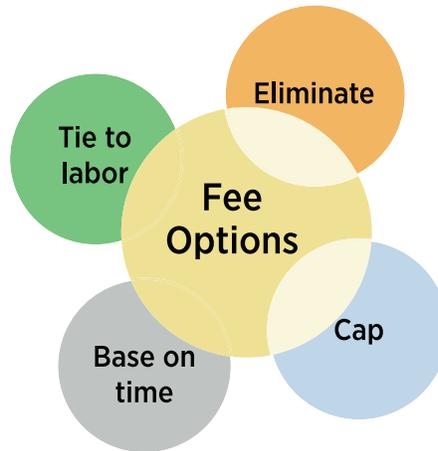
*Example:* The city of Honolulu, Hawaii, has developed an electronic permitting system that provides a central repository of plans and transparency on the permitting process while limiting travel and turnaround time.

### Permitting Fee Options

*What:* Eliminate permitting fees entirely.

*Why:* Reduces significant costs associated with the permitting process, creating a more attractive market for solar installations in the state.

*Example:* Not many jurisdictions have pursued this fee option, opting instead to charge a fee if it means an improvement in the process.



*What:* Cap permit costs.

*Why:* Allows residential customers to opt for a larger system without an increase in the cost of the permit, further incentivizing the residential solar market.

*Example:* The Colorado legislature passed Senate Bill 117 in 2008 to limit permit fees on solar PV, establishing different fee caps for residential and nonresidential installations. The Fair Permit Act of 2011 extended this initiative.

*What:* Tie the cost of the permitting fee directly to the amount of time it takes the government to expedite the permit.

*Why:* Creates a standard and easily understood process that limits the cost of permit fees while eliminating the financial risk associated with waiving fees altogether.

*Example:* The Colorado Fair Permit Act prohibits fees higher than the cost required to issue the permit.

*What:* Base the permit fee on PV installer labor costs.

*Why:* Reduces residential permitting fees by hundreds of dollars and ensures an easy-to-use fee calculation.

*Example:* In Minnesota, the Minneapolis Regulatory Service enacted a rule that bases the permit fee for small-scale solar installations in Saint Paul and Minneapolis on a calculation that excludes the cost of solar equipment.

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For more information about NREL's deployment and market transformation activities, see our website at [www.nrel.gov/tech\\_deployment](http://www.nrel.gov/tech_deployment).

For more information about permitting best practices, see [www.nrel.gov/docs/fy12osti/54574.pdf](http://www.nrel.gov/docs/fy12osti/54574.pdf). You can also visit [www.nrel.gov/tech\\_deployment/tech\\_assistance.html](http://www.nrel.gov/tech_deployment/tech_assistance.html) for information and resources on solar permitting and related NREL technical assistance, or contact us at [stat@nrel.gov](mailto:stat@nrel.gov).

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