



# Description

This seminar is designed to provide code officials, plan reviewers, solar installers, and design professionals with:

- Overview of current permitting practices for solar photovoltaic (PV) systems.
- Case studies of permitting in several jurisdictions
- Introduce code provisions impacting solar PV installations
- Describe permitting best practices for PV.







- The participant should have basic knowledge of:
  - General code enforcement principles
  - Working knowledge of the International Building Code, International Residential Code, International Mechanical Code and International Plumbing Code.
  - Plan review and the use of design standards















The Problem from Both Perspectives				
Installer Perspec	<ul> <li>Varying requirements across AHJs create confusion, rework, and frictional costs</li> <li>Requirements within the same AHJ suffer from inconsistent application.</li> <li>Requirements are not readily accessible and can be updated without notice.</li> <li>Inconsistent processing and cycle times disrupt sales and operations flows (e.g. scheduling staff time, routing crews, and site visits to customers)</li> </ul>	"I find myself having to educate the city staff on their own requirements" "AHJs can change their interpretations of existing codes and you only find out after you are about to submit your paperwork"		
AHJ's Persper	<ul> <li>Installer errors and incomplete/inconsistent paperwork (e.g. design doesn't match documents) creates extra work and delays.</li> <li>AHJs often operate in sub-optimal conditions - strained budgets, under-resourced, staff turnover.</li> <li>No channel to communicate updates or simplification of processes to installers.</li> <li>Solar installations are uncommon; AHJs are unaware of existing best practices or that a problem even exists.</li> </ul>	"Perhaps a fifth of submittal packages are poorly organized and may require hours of red-lining." "This is a matter of safety, not red tape.		





















# What make permitting for solar unique?

- Impacts multiple disciplines and areas of the building.
- Most frequently retrofits
- Inexperience of code officials with the technology.
- Rooftop access needed for inspection.
- Wide variation in local permitting requirements.

- Scale and pace of solar installs
- Unique financing and marketing of systems
- Many efforts to promote the spread of solar and reduce "soft costs"
- Local laws and ordinances addressing solar installations
- Multiple inspections
- Applicability nationwide, on most types of structures, new and existing construction.

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### **Best Practices: Ease of Use**

- Create forms and guides specifically for PV permitting.
- Setup a single point of contact for PV systems
- Flat rate or simplified fees.
- Implement expedited permitting procedures for smaller, simpler systems.













### **Best Practices: Fast Turnaround**

- Permitting
  - One-stop or online permitting
  - Timely responses to incomplete or inaccurate applications
- Inspections
  - Eliminate excessive inspections work to roll structural, fire and electrical inspections together.
  - Timely response to inspection requests.
  - Look for opportunities to coordinate interconnect and incentive program inspections.















Example: California	CALIFORNIA REPUBLIC
California Solar Shade Act	1978
California Solar Rights Act	1978
CALFIRE Guidelines	2008
SB 122 – Limits Permit Fees (\$500) for PV < 15 kW	2011
California Permitting Guidebook – First Edition	2012
Solar-Ready Roofing added to Building Energy Efficiency Stds	s. 2014
California Permitting Guidebook – Second Edition	2014
AB 2188 – Requires expedited permitting statewide	2014
Streamlined permitting mandated by AB 2188 statewide	10/2015





## AB 2188: Expedited Solar Permitting Act

- AB2188 (Muratsuchi), signed by Governor in September 2014
- Mandates a standardized, streamlined solar permitting process statewide for ≤10kW systems
- Cities must implement ordinance by September 30, 2015



### **California Solar Permitting** Guidebook Created by Governor's office, building officials, local governments, state regulatory agencies, and solar companies California Solar Permitting Provides a roadmap for local Guidebook governments to establish a streamlined permitting processes for small, solar rooftop systems under 10kw Guidance on interpretation of codes and standards . Seven toolkit documents for cities to streamline their permit process. **192-31**

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Example: New Hampshire				
NH Solar Skyspace Easement	RSA 477:51			
Planning & Zoning Solar Access	RSA 672:1			
Energy Sections in Municipal Master Plans	RSA 674:2			
Zoning for Solar Access	RSA 674:17			
Fee Waivers for Renewable Energy Systems	RSA 674:51			
		SOLAR RATING 8. CERTIFICATION CORPORATION		





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### Model Expedited Permitting Resources

- Interstate Renewable Energy Coalition (IREC)
  - Model Inspection Checklist for Rooftop PV Systems (2011 NEC, 2012 IRC/IBC/IFC)
  - Best Practices in Residential Solar Permitting
- ICC-SRCC International Solar Energy Provisions (ISEP)
  - Resource A: Checklist and Submittal Requirements for Expedited Permitting of Solar PV Systems (2015)
- Solar ABCs
  - Expedited Permit Process for PV Systems (2012)











