



LOCAL GOVERNMENT
SUSTAINABLE
ENERGY COALITION

SolarAPP & CalAPP

*Understanding Solar Permitting Solutions and
California's Program to Assist Local Government
Adoption*

Thursday, February 23, 2023 | 3-4 PM

Moderator



Demian Hardman-Saldana

LGSEC Board Co-Chair



Agenda Overview

- Welcome/Housekeeping
- CalAPP Overview – California Energy Commission
- SolarAPP Overview – National Renewable Energy Laboratory
- SolarAPP Affordability Benefits – California Solar & Storage Association
- Audience Q&A
- Closing

Zoom Features

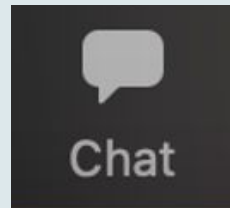
Microphone

Keep yourself **muted** so that we can hear our speakers clearly.



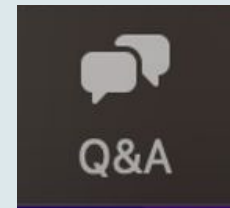
Chat

Communicate with other participants or reach out to LGSEC staff if you encounter technical issues.



Q&A

Use the Q&A Box to submit your questions!



Speaker Panel



Lucio Hernandez

Energy Commission
Specialist, California
Energy Commission



Patrick Gibbs

Researcher I-Division
Support Analysis,
National Renewable
Energy Laboratory



Benjamin Davis

Policy Analyst,
California Solar and
Storage Association



California Energy Commission

California Automated Permit Processing (CalAPP) Program

February 23, 2023



Agenda

- CalAPP Program Overview
 - Scope of Work
 - Application Process
 - Funding Structure
 - Reimbursable Costs
 - Application Form Overview
- Senate Bill 379
 - Overview
 - Exemptions & Compliance
 - Annual Reporting & Data
- Next Steps and More Information





CalAPP Program Overview

Legislation & Budget	<ul style="list-style-type: none">• Senate Bill 129 (Skinner, Budget Act of 2021)• "...support a grant program for cities, counties, or cities and counties to establish online solar permitting."• Budget: \$20 million (up to \$1 million for admin costs)
Eligibility	<ul style="list-style-type: none">• All incorporated California cities (482) and counties (58)
Application Deadline	<ul style="list-style-type: none">• May 1, 2023
Application Form	<ul style="list-style-type: none">• https://www.energy.ca.gov/calapp



Scope of Work – Choose Either

1. • Adopt SolarAPP+
2. • Adopt software that meets these requirements:

Performs an automated plan review for residential solar energy systems that completes automatic code compliance checks based on user inputs (such as a contractor), thereby enabling or otherwise issuing permits instantly when the project is confirmed as code compliant, without the need for human review

Supports online, immediate fee payment once an application is complete, which may include auto-invoicing of permit fee costs

Supports immediate generation of a permit job card following payment confirmation

Blocks noncompliant applications from receiving a permit

EITHER: 1) Stand-alone permitting tool; **OR** 2) Integrates with current software and inspection platform already in use



Grant Application Process

Submit
Application

CEC
Approves,
Reserves
Funding

Awardee
Completes
Grant
Activities

Awardee
Invoices
CEC for
Payment



CalAPP Funding Structure

Applicant Population	Reserved Grant Amount
Less Than 50,000	\$40,000
50,000 to 99,999	\$60,000
100,000 to 200,000	\$80,000
Greater Than 200,000	\$100,000



Reimbursable Costs

Allowable	Unallowable
Staff time (IT, third-party consultation, etc.)	Costs incurred prior to grant agreement execution
In-house staff training	Costs not directly related to adoption of permitting platform
Costs to train installers	Typically excluded items such as food for training events
Maintenance and subscription costs for supporting software	All other



Application Form Overview

- Applications accepted via electronic email submittal
 - Submittal Deadline: **May 1, 2023**
- Application can be accessed at <https://www.energy.ca.gov/calapp>

ATTACHMENT 01
Grant Application Form – EXHIBIT A
California Automated Permit Processing (CalAPP) Program

1. APPLICANT INFORMATION (REQUIRED)

Jurisdiction Name (please use full legal name as it would appear on the executed grant):

Jurisdiction Type (select one):
 City County City and County

Current Estimated Population [State of California Department of Finance Demographics](https://dof.ca.gov/forecasting/Demographics/) (https://dof.ca.gov/forecasting/Demographics/):
 Less than 50,000 From 100,000 to 200,000
 From 50,000 to 99,999 Greater than 200,000

Project Manager (serves as point of contact for all communications)	Name
	Street Address
	City and Zip Code
	Phone Number
	E-Mail Address

2. FUNDING (REQUIRED)

Assigned Maximum Grant Amount (select one)

Group 1 (\$40,000): Population less than 50,000

Group 2 (\$60,000): Population from 50,000 to 99,999

Group 3 (\$80,000): Population from 100,000 to 200,000

Group 4 (\$100,000): Population greater than 200,000

3. PROJECT INFORMATION (REQUIRED)

A. Online, automated solar permitting platform to be adopted:

SolarAPP+

Other. If selected, complete Section 4 ("Additional Information")

B. Please select allowable budget item(s) anticipated to be used (Select at least one):

Ongoing in-house staff labor costs associated directly with adoption and maintenance of the platform

Ongoing third-party or consultant time associated directly with adoption and maintenance of the platform

Ongoing staff training and education, specific to the platform

Ongoing training events for local installers, specific to the platform

Essential hardware or equipment necessary to support adoption of the platform

Maintenance, such as adding support for energy storage paired with solar energy system permitting, and subscription cost for permit tracking software in support of adopted permitting platform

C. Estimated Project Timeline*

*Enter actual dates if activities already began

Activity	Date (Month/Year)
Begin Development/Pilot	
Full Adoption	
Staff Training	
Training for Local Installers	

4. ADDITIONAL INFORMATION (if applicable)

NOTE: Only complete this section if you implement a platform other than SolarAPP+

Please identify whether the following features are supported by the implemented platform. All features are required for the platform to qualify for funding. CEC staff will verify prior to payment approval.

Performs an automated plan review for residential solar energy systems that completes automatic code compliance checks based on user inputs (such as a contractor), thereby enabling or otherwise issuing permits instantly when the project is confirmed as code compliant, without the need for human review	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Supports online, immediate fee payment once an application is complete, which may include auto-invoicing of permit fee costs	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Supports immediate generation of a permit job card following payment confirmation	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Blocks noncompliant applications from receiving a permit	<input type="checkbox"/> Yes	<input type="checkbox"/> No
EITHER: 1) Stand-alone permitting tool; OR 2) Integrates with current software and inspection platform already in use	<input type="checkbox"/> Yes	<input type="checkbox"/> No

5. REPORTING (REQUIRED)

Following adoption and verification of a qualifying platform, the Energy Commission may request, and the Recipient will provide if requested, annual data on the number of permits issued for solar energy systems and a solar energy system paired with an energy storage system including relevant characteristics of those systems, such as system capacity.

Please indicate your acceptance of these terms.

	<input type="checkbox"/> Yes	<input type="checkbox"/> No
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6. CERTIFICATION (REQUIRED)

- I am authorized to complete and sign this form on behalf of the applicant.
- I authorize the California Energy Commission to make any inquiries necessary to verify the information presented in this application.
- I have read and understand the terms and conditions contained in this solicitation. I accept the terms and conditions contained in this solicitation on behalf of the applicant, and the applicant is willing to enter into an agreement with the Energy Commission to conduct the proposed project according to the terms and conditions without negotiation.
- I certify under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Name of Authorized Representative:	
Title:	
Phone Number:	
E-mail Address:	
Date:	
Signature of Authorized Representative:	

NOTE: Do not overlap signature with surrounding border lines.



Senate Bill 379



Senate Bill 379 Overview

Legislation	<ul style="list-style-type: none">• Senate Bill 379 (Wiener, Chapter 356, Statutes of 2022)
Who?	<ul style="list-style-type: none">• California cities & counties (with exemptions)
What?	<ul style="list-style-type: none">• Implement an online, automated permitting platform such as SolarAPP+
When?	<ul style="list-style-type: none">• By September 30, 2023 or September 30, 2024 (depending on population size)
CEC Role	<ul style="list-style-type: none">• Adopt guidelines for annual reporting



SB 379 Exemptions

Who?	Threshold
City	<ul style="list-style-type: none">Population fewer than 5,000
County	<ul style="list-style-type: none">Population fewer than 150,000 (includes population of cities within)
Example 1	<ul style="list-style-type: none">City of Truckee (Population ~16,000) <u>NOT EXEMPT</u>
Example 2	<ul style="list-style-type: none">Nevada County (Population ~97,000) <u>EXEMPT</u>



SB 379 Compliance Schedule

Deadline	Description
September 30, 2023	<ul style="list-style-type: none">• A city or county with a population of greater than 50,000 and not otherwise exempt
September 30, 2024	<ul style="list-style-type: none">• A city with a population of 50,000 or fewer and not otherwise exempt



Annual Reporting

SB 379: “The Energy Commission shall set guidelines...to report on the number of permits issued and the relevant characteristics of those systems.”

- Data submitted to CEC
 - Authorized representatives of non-exempt reporting jurisdictions shall provide information to the Energy Commission that satisfies the requirements of SB 379
- Non-exempt jurisdictions will submit annual reports by June 30th every year following compliance until June 30, 2034
- Data shall cover the previous calendar year from January 1 – December 31



Data Collection

• Proposed Data Collection Fields:

1. Name of Jurisdiction
2. Reporting Year
3. Estimated population
4. Total number of permits issued for **solar only**
 - a) Number of permits through automated, online system
5. Total number of permits issued for **solar paired with storage**
 - a) Number of permits through automated, online system
6. Electric utility service provider



Next Steps & More Information

- May 1, 2023: CalAPP Application deadline to reserve funding
 - Spring 2023: Anticipated adoption of SB 379 Guidelines
- CalAPP Program webpage: <https://www.energy.ca.gov/calapp>
 - Application Form accessible from this page
- SB 379 webpage:
<https://www.energy.ca.gov/programs-and-topics/programs/residential-solar-permit-reporting-sb-379>
- Please join the CalAPP email list topic, available from our webpage or at <https://public.govdelivery.com/accounts/CNRA/signup/31719>
- CEC Contact: calapp@energy.ca.gov



Thank You!



SolarAPP+

The Emerging US Permitting Solution



SolarAPP+ is a collaborative effort to accelerate rooftop solar adoption by making it easier for local governments to quickly and safely approve standardized rooftop PV projects for installation using NREL's permitting software.

SolarAPP+ is free for AHJs to adopt and is supported by small admin fees paid by installers.

SolarAPP+ Eligibility

SolarAPP+ can cover standardized systems as defined [here](#).

Current Support Parameters

- Residential PV
- Approved equipment
- NEC 2017 & 2020
- 2018 & 2021 i-Codes
- Bus <225A
- Service <400A
- PV systems <4PSF
- Single phase utility supply
- No wood shake roofs
- No metal roofs w >15PSF snow load
- Main panel upgrades
- California's Title 24

Support In Progress

- Residential storage
- Add-ons for existing systems

Planned

- EV chargers, electric appliances, roof tiles, and more...

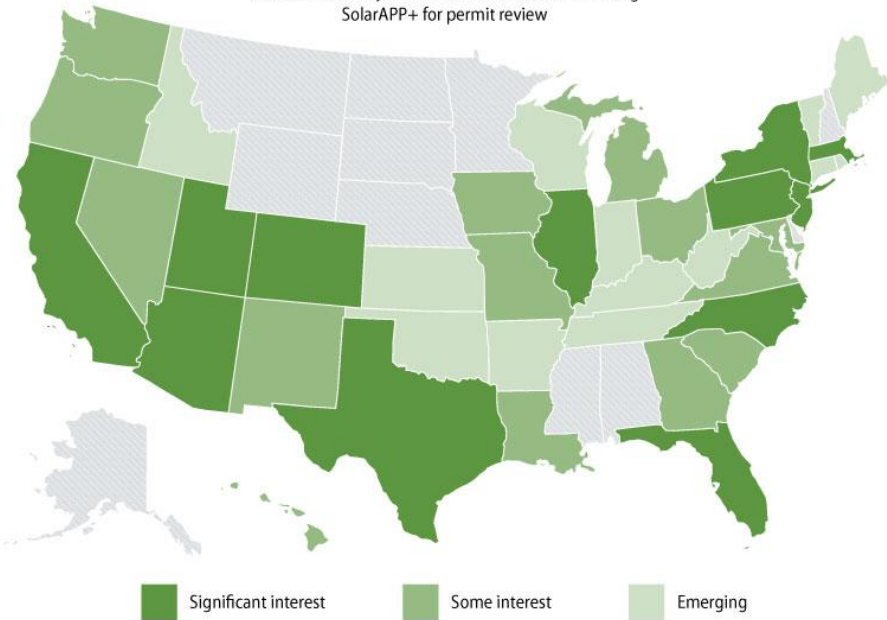


Let us know what you'd like to see next!

Interest in SolarAPP+

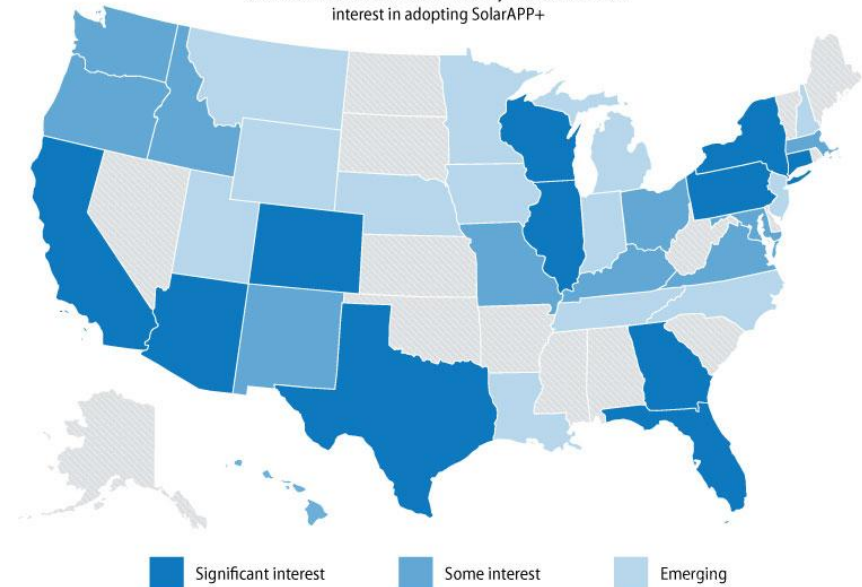
Interested Installers

Across the country, installers are interested in utilizing SolarAPP+ for permit review



Engaged Jurisdictions

Cities and counties across the country have shown their interest in adopting SolarAPP+



Tucson's Experience with SolarAPP+

- 1,870 PV permits issued to date
- 14,200+ kW approved via SolarAPP+
- Over 1,800 hours of staff time saved in plan review
- Piloting PV+ storage



“The permitting process was taking four weeks. Now with SolarAPP+ we give a permit the same day. We just approved about 450 installations in the last 60 days alone.” - **Tucson Mayor Regina Romero**

SolarAPP+ Pilot Statistics

6,000+

Residential rooftop PV permits approved to date, including 1,400+ revisions

420+

Permits approved to date for Solar+Storage projects

No time added

to inspections of PV systems in the field, with comparable inspection passage rates to traditional inspections

Projects submitted through SolarAPP+ were installed and inspected

12 days faster

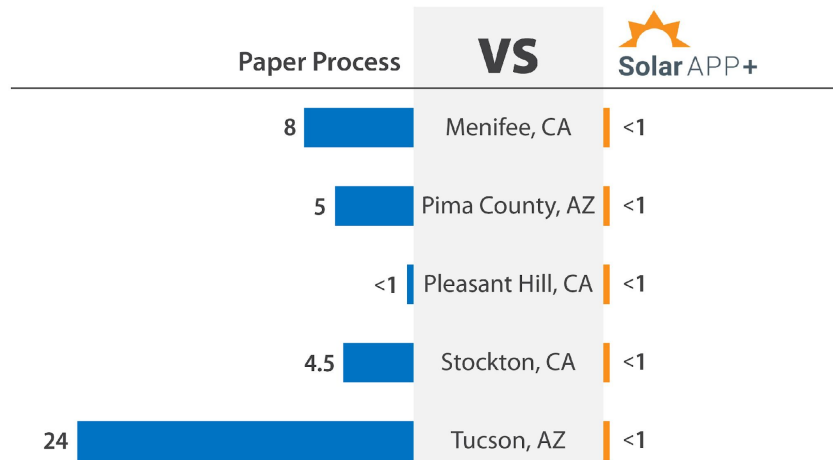
on average than projects using the traditional process

By providing instantaneous review SolarAPP+ has reduced the average permit review time to

less than 1 day

saving jurisdictional staff over **6,000 hours** in review

Median Business Days for Permit Review



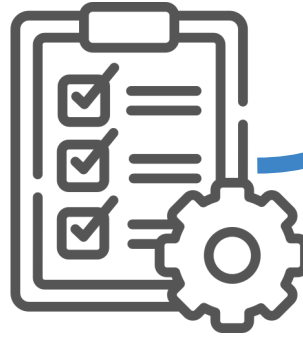
SolarAPP+ Flow

1
Installer submits an application with design specifications through SolarAPP



2

SolarAPP checks the application to ensure the system design is code compliant



3

Code compliant applications are issued a permit instantly after fee payment

[\(Review sample approval docs here\)](#)

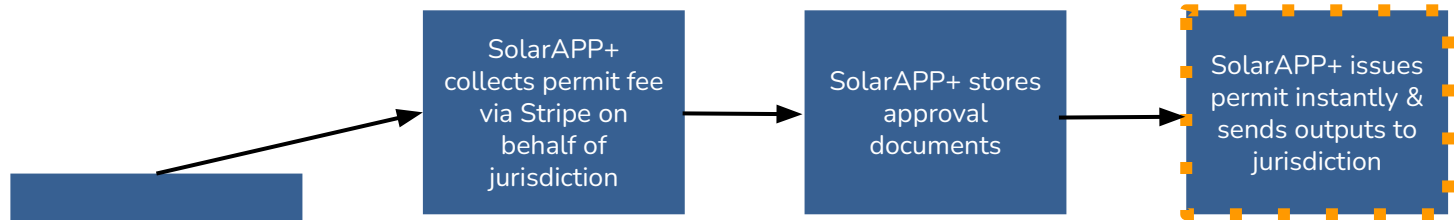


Adoption Options

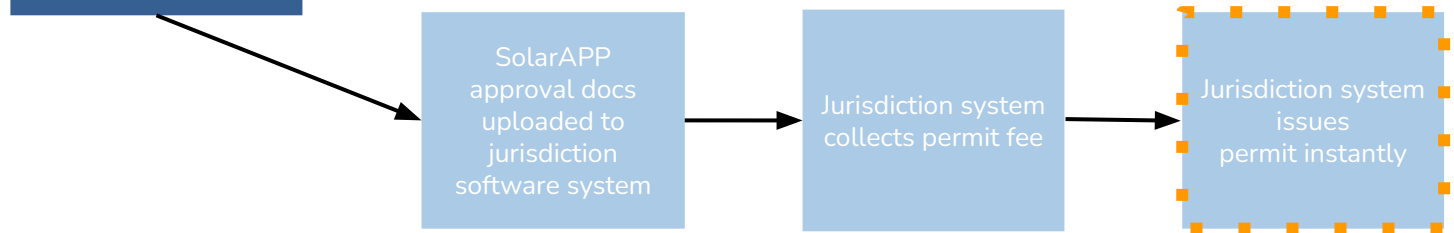
SolarAPP
+
Software

Existing
Software

Stand Alone SolarAPP+ (For email and in-person jurisdictions)



Integrated with Existing Permitting Software (For already online jurisdictions)



Four Steps to Adopting SolarAPP+



Select the Right Integration

- SolarAPP can be set up to:
- **integrate** with your existing online permitting software
 - **stand alone** as a complete online permitting solution



Input Local Settings

- These include:
- Permitting contacts
 - AHJ boundaries
 - Local wind and snow variables
 - Model code years
 - Terms and conditions



Setup Instant Permit Workflow

- Depending on your integration, either:
- Set up an instant permit application in your software
 - Set up permit payments in SolarAPP



Launch

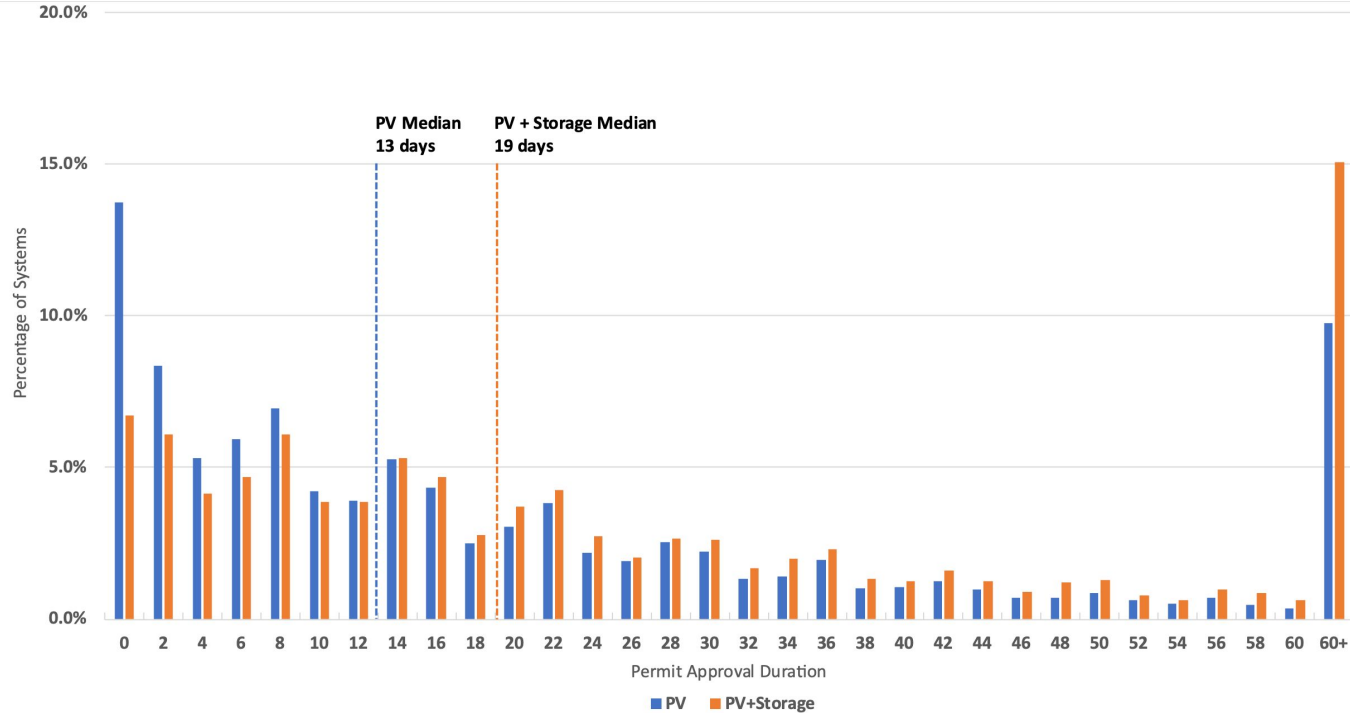
- This involves:
- Inviting 1-3 installers to use your SolarAPP permitting process
 - Opening up SolarAPP+ permitting to all installers

SolarAPP+ Benefits

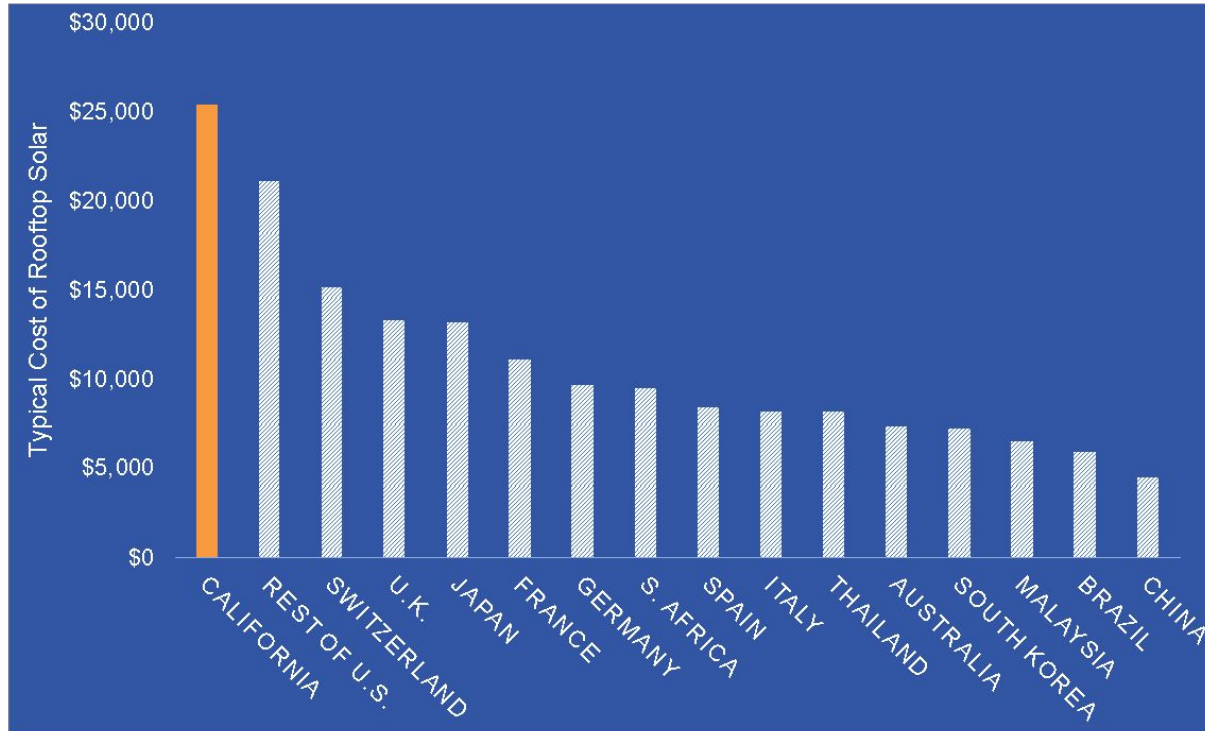
Presentation by Benjamin Davis
For LGSEC webinar on
SolarAPP+
February 23, 2023



Traditional solar permitting faces delays



Solar costs more in California than the rest of the world



Benefits of SolarAPP+

SolarAPP+ lowers the cost of solar	System type	Average cost to homeowners today	Savings in typical municipalities	Savings in challenging municipalities
	Solar	\$21,120	\$1,228	\$2,572
	Solar + storage	\$33,620	\$2,270	\$5,120

SolarAPP+ will lead to more solar

Increase in middle-income homes that become willing to go solar due to SolarAPP+	System type	Typical municipality	Challenging municipality
	Solar	7%	16-17%
	Solar + storage	7-10%	22-25%

Increase in low-income homes that become willing to go solar due to SolarAPP+	System type	Typical municipality	Challenging municipality
	Solar	22-26%	45-75%
	Solar + storage	19-28%	61-100%



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Audience Q&A

Please submit your questions in the Q&A box

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