



Overview of Changes to the Processes Supporting the Energy Commission's Lists of Eligible Solar Equipment

**California Energy Commission
Webinar Presentation
June 13 & June 20, 2017**

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General WebEx Items

- Webinar is being recorded – posted online later
- All attendees are muted except presenter
- Type questions in the Chat window
- Can also email questions to SolarEquipment@energy.ca.gov
- WebEx Technical Support 1-866-229-3239



Webinar Outline

- What is the purpose of the solar equipment lists?
- What is on the solar equipment lists?
- Where are the solar equipment lists?
- Who manages the solar equipment lists?
- What has changed?
 - Smart Inverter additions

(Questions about Overall Changes)
- Training for PV Module Listing Request Form

(Questions about PV Module Listing Request Form)



What is the Purpose of the Equipment Lists?

- California Senate Bill 1 (SB1) expanded the California Solar Initiative (CSI) and New Solar Homes Partnership (NSHP) incentive programs to promote the installation of rooftop PV systems in California.
- SB1 called for the creation of an equipment list to identify the solar energy system components eligible for incentives under the Go Solar California programs.



What is on the Equipment Lists?

- Photovoltaic modules – Flat plate, nonconcentrating; BIPV
- Inverters
- Meters
- Other Solar Electric Generating Technologies (OSEGT)
- Performance Monitoring and Reporting Services (PMRS)

Go Solar California Conditions and Terms of Use:

<http://www.gosolarcalifornia.ca.gov/use.php>



Where are the Equipment Lists?



Go Solar California home page:

<http://www.gosolarcalifornia.ca.gov>

Select “Equipment” section from the top menu of the Go Solar home page

Main Equipment Page:

<http://www.gosolarcalifornia.ca.gov/equipment/index.php>

Equipment Web Page Links:

- List in Excel format (Simplified and Full Data for PV Modules & Inverters only)
- Listing Request Procedure
- Listing Request Form



Who Manages the Equipment Lists?

- Energy Commission is the administrator
- Maintenance of the Equipment Lists has been contracted to AESC since June 1, 2014
- Effective May 16, 2017, Energy Commission maintains the Equipment Lists
 - Procedure changes to improve reliability & efficiency
 - Methods to help manufacturers better understand submission requirements.



What Has Changed?

	New	Old
List Maintenance	Energy Commission	AESC
Primary Contact	SolarEquipment@energy.ca.gov (916) 654-4120	CECSolarEq@aesc-inc.com
Equipment Listing Request Procedures	<ul style="list-style-type: none"> • Inquiries and email requests to Energy Commission • Deadline end of the month Updates ~30 days later • PV module retesting only upon request 	<ul style="list-style-type: none"> • Inquiries and email requests to AESC • Deadline 15th of the month Updates ~15 days later • PV module retesting based on NOCT & γ
Submission Information & Documents:	<ul style="list-style-type: none"> • Updated web pages/structure • Downloadable Excel lists (except PMRS) • New procedures (2-phase) & new forms 	<ul style="list-style-type: none"> • Old web pages • Lists on web pages • Old procedures & forms
Inverter List	<ul style="list-style-type: none"> • Utility Interactive and some Grid Support Utility Interactive (“smart”) Inverters certified to UL 1741 Supplement A 	<ul style="list-style-type: none"> • Utility Interactive Inverters



Grid Support Utility Interactive (Smart) Inverter Background

- CPUC Rule 21 requirement for inverters certified to UL 1741 Supplement A effective Sept. 8, 2017 (date of interconnection application submitted to PG&E, SCE, or SDG&E)
- Based on Phase 1 recommendations from the Smart Inverter Working Group (SIWG)
http://www.energy.ca.gov/electricity_analysis/rule21/
- CPUC Rule 21 proceeding:
<http://www.cpuc.ca.gov/Rule21/>



New Inverter List

Example of Inverter List - Simplified (Excel spreadsheet):

<http://www.gosolarcalifornia.ca.gov/links/equipment/inverters.php>

Manufacturer Name	Model Number**	Description	Power Rating, Continuous at Unity Power Factor (kW)	Nominal Voltage (Vac)	Weighted Efficiency (%)	UL 1741 Supplement A Certification***		Built-In Meter	Microinverter	Notes
						Certificate Date	Firmware Version Tested			
Inverter Mfr A	Model A (208V)	250W Utility Interactive Inverter	0.25	208	96	Not Applicable	Not Applicable	N	N	
Inverter Mfr A	Model A (208V) [SI1]	250W Grid Support Utility Interactive Inverter	0.25	208	96	10/25/16	5.1	N	N	
Inverter Mfr B	Model B	300W Utility Interactive Inverter	0.3	240	95.5	No Information Submitted	No Information Submitted	N	Y	



Frequently Asked Questions

- New Lists? No, updating existing lists.
- Common Grounds for Rejection:
 - Submitted old forms.
 - Request not emailed by equipment manufacturer.
 - Manufacturer's contact name & email address not provided.
 - Missing documents or information.
 - Insufficient equipment description.
 - Manufacturer names, model numbers, or other data is inconsistent across all documents (Request Form, NRTL certificate, Test Report).
 - Technical information is missing, incorrect, not clear, did not follow SB 1 Guidelines, or did not meet technical criteria.
- If rejected, submit new, complete request after deficiencies are corrected.



Equipment List Schedule

Request Deadline

List Update

(No July 1 update)

mid-July 2017 (Inverters only)

June 30, 2017

early August 2017

mid-August 2017 (Inverters only)

July 31, 2017

early September 2017



Questions & Comments

Notices and program updates will be posted on the Workshops, Notices and Training webpage

<http://www.gosolarcalifornia.ca.gov/equipment/events.php>

Sign up on Solar Equipment List Serve to receive automated emails (bottom right corner of webpage):

<http://www.energy.ca.gov/sb1/>

Energy Commission Contact Information

SolarEquipment@energy.ca.gov

(916) 654-4120