

CALIFORNIA ENERGY COMMISSION1516 Ninth Street
Sacramento, California 95814Main website: www.energy.ca.gov

In the matter of,)	Docket No. 07-SB-1
)	
)	Notice of Business Meeting
)	
Eligibility Criteria and Conditions for Solar)	RE: Adoption of Revisions to
Energy System Incentives (Senate Bill 1))	Guidelines for California's Solar
)	Electric Incentive Programs
)	(Senate Bill 1)

Notice to Consider Adoption of Revisions to Guidelines for California's Solar Electric Incentive Programs (Senate Bill 1)

The California Energy Commission will hold a regularly scheduled business meeting on:

JUNE 29, 2011
Beginning at 10 a.m.
CALIFORNIA ENERGY COMMISSION
1516 Ninth Street
First Floor, Hearing Room A
Sacramento, California
(Wheelchair Accessible)

DOCKET	
07-SB-1	
DATE	JUN 20 2011
RECD.	JUN 21 2011

At the June 29, 2011, business meeting, the Energy Commission will consider adopting proposed revisions to the *Guidelines for California's Solar Electric Incentive Programs (Senate Bill 1), Third Edition*. These guidelines establish eligibility criteria, conditions for incentives, and equipment rating standards for all ratepayer-funded solar electric programs in California.

At the direction of the Energy Commission's Renewables Committee, proposed revisions have been made to the guidelines to clarify and revise the accuracy requirements for inverter-integrated performance meters. These revisions are of limited scope and have been proposed so the Energy Commission may coordinate the metering requirements for rate-payer funded solar electric incentive programs with the Renewables Portfolio Standard (RPS) eligibility requirements for distributed generation systems for the customer side of the meter. Energy Commission staff have already started work on the latter with revisions to the Energy Commission's *Renewables Portfolio Standard Eligibility Guidebook, Fourth Edition*.

The proposed revisions to the *Guidelines for California's Solar Electric Incentive Programs (Senate Bill 1), Third Edition*, effectively delay implementing any new accuracy requirements for performance meters until such time as the Energy Commission establishes RPS-eligibility requirements for distributed generation systems located on the customer side of the meter. The proposed revisions are limited to pages 13 and 38 of the guidelines, which have been excerpted and attached as Attachment A to this notice for public review. The proposed revisions are shown in underline and strikeout format. These are the only revisions being addressed at this time, however the Energy Commission intends to hold a workshop later this year to discuss additional revisions to the guidelines.

Written Comments

Written comments on the proposed changes to the guidelines should be submitted no later than 5 p.m. on June 27, 2011. Please include the Docket Number 07-SB-1 and indicate *Eligibility Criteria and Conditions for Solar Energy System Incentives (Senate Bill 1)* in the subject line or first paragraph of your comments. Please hand deliver or mail an **original copy** to:

California Energy Commission
Dockets Office, MS-4
Re: Docket No. 07-SB-1
1516 Ninth Street
Sacramento, CA 95814-5512

The Energy Commission encourages comments by e-mail. Please include your name or organization's name in the name of the file. Those submitting attached comments by electronic mail should provide them in either Microsoft Word format or as a Portable Document Format (PDF) file to [\[docket@energy.state.ca.us\]](mailto:docket@energy.state.ca.us). **One paper copy** must also be sent to the Energy Commission's Docket Unit. All written materials received relating to the proposed guideline revisions will be filed with the Dockets Unit and become part of the public record in this proceeding.

Public Participation

The Energy Commission's Public Adviser's Office provides the public assistance in participating in Energy Commission activities. If you want information on how to participate in this forum, please contact the Public Adviser's Office at (916) 654-4489 or toll free at (800) 822-6228, by FAX at (916) 654-4493, or by e-mail at [\[PublicAdviser@energy.state.ca.us\]](mailto:PublicAdviser@energy.state.ca.us). If you have a disability and require assistance to participate, please contact Lou Quiroz at (916) 654-5146 at least five days in advance.

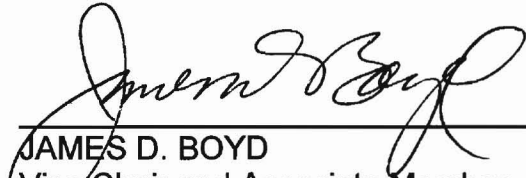
Please direct all news media inquiries the Media and Public Communications Office at (916) 654-4989, or by e-mail at [\[mediaoffice@energy.state.ca.us\]](mailto:mediaoffice@energy.state.ca.us).

If you have questions on the technical subject matter of the proposed guideline revisions, please contact Patrick Saxton, High Performance Buildings and Standards Development Office at (916) 651-0489 or by e-mail at [psaxton@energy.state.ca.us].

Date: June 20, 2011



CARLA PETERMAN
Commissioner and Presiding Member
Renewables Committee



JAMES D. BOYD
Vice Chair and Associate Member
Renewables Committee

Attachment A
Mail Lists: GoSolar, Renewable

ATTACHMENT A

Meters

Performance meters,³⁰ whether standalone or integrated with the inverters, shall be required to meet the following eligibility criteria:

- Meters with ± 2 percent accuracy are required for all performance-based incentive applicants.
- All ± 2 percent accuracy meters shall be tested by a NRTL according to all applicable ANSI C-12 testing protocols.
- Meters with ± 5 percent accuracy (These are primarily inverter-integrated.) shall be allowed for expected performance incentive applicants.
- Additional meter accuracy testing may be required for all inverter-integrated meters at such time as the Energy Commission establishes Renewables Portfolio Standard (RPS) eligibility requirements for distributed generation systems located on the customer side of the meter. Beginning July 1, 2011, all inverter-integrated meters shall be tested to ± 5 percent accuracy by a NRTL, in accordance with "Inverter Integral 5% Meter Performance Specification and Test Requirements" adopted by the California Public Utilities Commission.³¹
- All meters shall measure and display both instantaneous power (kW or W) and cumulative energy produced (kWh or Wh).
- All meters shall retain production data during power outages.
- All meters shall be easy to read for the customer's benefit.
- All meters shall have a communication port capable of enabling connection to remote performance monitoring and reporting service (PMRS).

*Eligible meters are listed with the Energy Commission.*³²

³⁰ The CPUC's CSI Program is considering proposed requirements related to metering for solar electric displacing incentives and for monitoring the interaction between the solar production meters, renewable energy credits, advanced meter and time of use meters and other metering applications. Future updates of these guidelines will consider these and subsequent recommendations.

³¹ Potential requirements could include that all inverter-integrated meters be tested to ± 5 percent accuracy by a NRTL, in accordance with the "Inverter Integral 5% Meter Performance Specification and Test Requirements" adopted by the California Public Utilities Commission (CPUC). These CPUC test requirements can be found in the *California Solar Initiative Program Handbook* at <http://www.gosolarcalifornia.org/documents/csi.php>.

³² http://www.gosolarcalifornia.org/equipment/system_perf.php

All of the above data will be used as inputs for the calculation of expected performance of the system.

The tests for Power Foldback (Section 5.8) and Inverter Performance Factor/Inverter Yield (Section 5.9) are NOT required.

The data and reports resulting from the tests for Maximum Continuous Output Power (Section 5.4), Conversion Efficiency (Section 5.5) and Tare Losses (Section 5.7.1) shall be provided to the Energy Commission and will be made public. The inverter tested shall utilize the same hardware and software configuration evaluated during the UL 1741 certification test.

Meters

All eligible meters shall comply with the requirements stated below, to be listed as eligible equipment with the Energy Commission.

- Meter Measurement: Meters shall measure net generated energy output as well as instantaneous power.
- Meter Testing Standards: ± 2 percent meters shall be tested by a NRTL, according to all applicable ANSI C-12 testing protocols. Additional meter accuracy testing may be required for all inverter-integrated meters at such time as the Energy Commission establishes Renewables Portfolio Standard (RPS) eligibility requirements for distributed generation systems located on the customer side of the meter. ~~Beginning July 1, 2011, all inverter-integrated meters shall be tested to ± 5 percent accuracy by a NRTL, in accordance with "Inverter Integral 5% Meter Performance Specification and Test Requirements" adopted by the California Public Utilities Commission.⁶⁸~~
- Meter Certification: Meter accuracy ratings shall be certified by a NRTL. All test results or NRTL documentation supporting the certification shall be maintained on file for inspection by the Energy Commission.
- Meter Data Access: All meters shall provide the PMRS provider with the ability to access and retrieve the minimum required Solar Performance/Output Data from the meter using the Meter Communication/Data Transfer Protocols. In the event that the system is

⁶⁸ Potential requirements could include that all inverter-integrated meters be tested to ± 5 percent accuracy by a NRTL, in accordance with the "Inverter Integral 5% Meter Performance Specification and Test Requirements" adopted by the California Public Utilities Commission (CPUC). These CPUC test requirements can be found in the *California Solar Initiative Program Handbook* at <http://www.gosolarcalifornia.org/documents/csi.php>.

not required to have a PMRS provider, the System Owner shall have a means to retrieve the minimum required Solar Performance/Output Data from the meter.

- Meter Display: All meters shall provide a display showing measured net generated energy output and measured instantaneous power. This display shall be easy to view