



Small Wind Certification Council
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April 21, 2011

DOCKET

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California Energy Commission
Dockets Office, MS-4
Re: Docket No. 02-REN-1038
1516 Ninth Street
Sacramento, CA 95814-5512
docket@energy.state.ca.us

RE: SWCC Comments on Proposed Changes to the Emerging Renewables Program

Dear Commissioners,

This letter and attachments encompass comments from the Small Wind Certification Council (SWCC) concerning the *Staff Workshop on Proposed Changes to the Emerging Renewables Program Guidebook*, including recommendations for incentive eligibility. To provide perspective, SWCC has included information on the leading small wind incentive programs across the nation, including links to individual programs administered by other states.

The growth of small wind is often tied to state and utility incentives and rebates. Independent certification by SWCC has been identified as a pathway to eligibility for numerous incentives, and several programs are beginning to require certification.

In a 2006 SWCC survey, numerous state and utility incentive program managers indicated that certification could help expand their programs for small wind turbines. More than half of the states, utilities, and funding agencies with existing requirements for small wind turbines who responded to the SWCC survey indicated that they expect to use certification to supplement or replace their existing procedures.

New York State Energy Research and Development Authority (NYSERDA) now requires certification either by SWCC or other independent certifying agency, an EN45011 accredited international organization, or Nationally Recognized Testing Laboratory for turbines not already on their approved list to qualify for rebates.

Wisconsin's Focus on Energy has joined with the Energy Trust of Oregon in leading the way to require certification for small wind turbines to qualify for incentives beginning January 1, 2012. Energy Trust of Oregon recently revised its eligibility for small wind incentives and will end its internal review process and require certification from an independent certification body such as the SWCC as of January 1, 2012.

Wisconsin has also established a new provisional incentive for small wind turbines that are pending certification. Many states are following the lead of Wisconsin, Oregon, and New York in making plans to require certification for small wind turbines to qualify for incentives. The

Massachusetts Clean Energy Center (MassCEC) now requires either SWCC certification or NYSERDA qualification, and intends to rely on the SWCC certified turbine list in the near future. Programs in California, Colorado, Iowa, Maine, Maryland, Minnesota, Nevada, New Jersey, and Vermont have indicated their intention to follow suit.

Currently, several states, including Colorado, rely on the NYSERDA list to qualify small wind turbines for incentive programs. As more turbines become certified, program managers for those incentives plan to simplify qualification procedures by adopting SWCC certification as a means for eligibility. Many incentive managers are eager to incorporate SWCC certificate requirements into their programs, noting that improving the reliability of performance estimates is a significant step towards increasing customer adoption of wind technology.

Testing a small wind turbine to the requirements of the AWEA Standard usually takes at least 6 months, depending on the wind regime in which the test facility is located. Testing and reporting can take as much as 1-2 years to complete. Structural analysis can be performed in parallel with field testing. Depending on the quality of the test reports and the level of issue resolution required, SWCC certification is expected to take approximately 2-4 months after submission of test reports and a full application.

Experience in the UK with testing and certification of small wind turbines for the Microgeneration Certification Scheme (MCS) has shown that it is possible for small wind turbine manufacturers to complete the process in 12 months (9 months to test, 3 months to certify), but it typically takes 12-18 months. Once testing begins, the time required is primarily a function of the wind conditions at the test site, technical issues with the turbine, and the architecture/design of the wind turbine.

SWCC is an independent non-profit organization with the public purpose of providing this certification service. A three-member Certification Commission makes all certification decisions. The Commissioners are qualified and independent industry experts appointed by the Board of Directors and must file disclosure statements to ensure that they do not have any conflicts of interest. The Board of Directors includes three directors (out of 11) who represent the industry sector. SWCC Bylaws and operating procedures are designed so the Board has no involvement in individual certification decisions.

Please feel free to contact us with any questions or for further information. We are happy to work with CEC staff to ensure that certification requirements for the ERP are appropriate, independent and rigorous. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Larry Sherwood". The signature is fluid and cursive, with the first name "Larry" and last name "Sherwood" clearly distinguishable.

Larry Sherwood
Executive Director

Attachments: SWCC Recommended Language for Incentive Eligibility
Links to Other State Incentive Programs

SWCC Recommended Language for ERP Incentive Eligibility

In order to promote confidence that small wind turbines installed with ratepayer assistance have been tested for safety, function, performance and durability and to establish consistency in ratings, SWCC recommends the following eligibility language for the Emerging Renewables Program to replace the existing eligible list and transition to certification requirements.

To be eligible for incentives, a wind turbine manufacturer or authorized designee must provide technical information and specifications of the wind turbine model for CEC review and provide acceptable evidence demonstrating its safety, functionality and reliability through one of the following methods:

- For small turbines with a swept area of 200 square meters or less and within the scope of IEC 61400-2 or the American Wind Energy Association Small Wind Turbine Performance Standards (AWEA 9.1 – 2009), submission of:
 - Evidence of certification to IEC 61400-2 or AWEA 9.1 – 2009 by the Small Wind Certification Council (SWCC) or other independent certification body; OR
 - For time-limited eligibility through December 31, 2011,¹ evidence that a power performance test conforming to AWEA 9.1 – 2009 or IEC 61400-12-1 has been verified by the SWCC or other independent certification body.
- For turbines with a swept area of more than 200 square meters and therefore outside the scope of IEC 61400-2 or AWEA 9.1 – 2009, submission of:
 - Evidence of type certification by a certification body that is accredited to provide product conformity certification to IEC Standard 61400-1, IEC Standard 61400-11, and IEC Standard 61400-12-1; OR
 - For time-limited eligibility through December 31, 2011, evidence that a power performance test conforming to IEC 61400-12-1 has been verified by an independent certification body.

CEC may require additional documentation of performance, safety and durability, including reported production from a retail installation in North America with an owner/operator who is available for interview. Listed turbines may also be removed for safety, durability, performance, acoustic or other concerns at CEC's sole discretion.

Section N.5 of SWCC's Certification Policy describes grounds for sanction and corrective action. If a deficiency or violation is found, the SWCC Certification Commission has a list of possible actions it can take ranging from private or public reprimand to certification revocation.

Likewise, CEC staff should be authorized to rescind eligibility for products experiencing failures or poor operational performance, reliability, or warranty support.

¹ At least nine small wind turbine models have conducted a substantial portion of field testing and are expected to be certified by December 31, 2011. Selecting such a deadline will encourage manufacturers to accelerate their efforts to achieve certification. However, to ensure that a wider selection of turbine models are available for incentives to consumers and in recognition of the time required to complete testing and the certification process, some programs are considering setting a deadline of July 1, 2012 for requiring turbines that have qualified through an alternate method to complete certification in order to remain eligible.

The following optional provisions could be considered for small turbines that fall under the scope of AWEA 9.1 – 2009 to allow flexibility during a limited transition period:

- Alternative interim requirements for the remainder of 2011 include submission of:
 - Evidence of certification under the UK’s Microgeneration Certification Scheme.²
 - Evidence of type certification by a certification body that is accredited to provide product conformity certification to IEC Standard 61400-2, IEC Standard 61400-11, and IEC Standard 61400-12-1.
 - Evidence of designation as eligible for incentives by the New York State Energy Research and Development Authority.
 - Evidence of designation as SWCC “Under Test” status level AND one year of reliable operation (12 months of wind speed data coupled with monthly energy production information maintaining operational availability of at least 90%) of that model of equipment at retail installation in North America with annual average wind speeds of at least 12 mph at hub height and an owner/operator who is available for interview.
- Base incentive levels on the AWEA Rated Power at 11 m/s in accordance with a power performance curve verified by the SWCC or other certifying body. Incentive levels may need to be adjusted to avoid abrupt changes. Rebates should be capped at no more than 50% of the overall system cost, requiring proof of total payments, to ensure that significant customer investments are needed and to prevent “free” turbine sales.
- For funding designed to support inventions or new, unproven wind turbine designs, structure payments based on actual kWh production and require evidence that a power performance test conforming to IEC 61400-12-1 has been verified by an independent certification body such as the SWCC.

Rebate reservations made based on substantially inflated claims should not be honored, so that valuable ratepayer funding can be made available to products with reliable performance estimates to encourage customer adoption of small wind technology.

Links to Other State Incentive Programs

The following programs require or are expecting to require certification for small wind turbines to qualify for incentives:

- CO** Recharge Colorado Rebate: Small Wind Systems
http://rechargecolorado.com/index.php/energy_action_planner/find_rebates_details/?incentive_id=212&zip_code=81612
- IA** Iowa Energy Center Alternate Energy Revolving Loan Program (AERLP)
<http://www.energy.iastate.edu/AERLP/index.htm>

² www.microgenerationcertification.org/mcs-consumer/product-search.php

- MA** [Massachusetts Clean Energy Center](#) (MassCEC)
Discussion of SWCC requirement:
<http://www.masscec.com/masscec/file/CWIPMS-03-Solicitation.pdf>
<http://www.masscec.com/masscec/file/Summary%20of%20Proposed%20Micro%20Wind%20Program%20Modifications%281%29.pdf>
- ME** Efficiency Maine Wind Energy Incentives
<http://www.efficiencymaine.com/renewable-energy/wind>
- MD** Maryland Energy Administration Windswept Grant Program
<http://energy.maryland.gov/windswept/index.html>
- MN** Minnesota Small Wind Turbine Rebate
<http://www.state.mn.us/portal/mn/jsp/content.do?subchannel=-536895045&programid=536917287&id=-536893809&agency=Energy&sp2=y>
- NY** New York State Energy Research and Development Authority (NYSERDA)
<http://www.powernaturally.org/programs/wind/incentives.asp>
<http://www.nyserda.org/funding/2097h.pdf>
- NV** NV Energy WindGenerations Incentive Program
<http://www.nvenergy.com/renewablesenvironment/renewablegenerations/windgen/index.cfm>
- OR** Energy Trust of Oregon
<http://energytrust.org/shared-resources/info/small-wind-turbines.aspx?src=residential>
- VT** Vermont Small Scale Renewable Energy Incentive Program
<http://www.nerc-vt.org/incentives/elig.htm>
- WI** Focus on Energy
<http://www.focusonenergy.com/Incentives/Residential/Renewable/default.aspx>
http://www.focusonenergy.com/files/Document_Management_System/Renewables/renewableswind_applicationform.pdf
http://www.focusonenergy.com/files/document_management_system/renewables/windincentive_policy.pdf