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Patricia Van Gerpen, Executive Director
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VIA EMAIL karen.cremer@state.sd.us
http://puc.sd.gov/DocketFiling.aspx

RE: SWCC Comments on Standards to Govern Avoided Cost Determinations, RM13-002

Dear Rulemaking Officials:

This letter and attachments encompass comments from the Small Wind Certification Council (SWCC) under docket RM13-002 in support of the South Dakota PUC promulgating rules governing PURPA QF avoided cost determinations in the state and including wind turbine certification requirements in the development of standards. In order to promote confidence that wind turbines installed in South Dakota have been tested for safety, function, performance and durability and to ensure consistency in ratings, SWCC urges the South Dakota PUC to establish a requirement that wind turbines are certified by an independent certification body to be eligible for South Dakota wind energy capacity credits, interconnection, or power purchase agreements as outlined in the attached detailed recommended language.

The SWCC is an accredited independent certification body that certifies the performance of small and medium wind turbines, confirming that wind turbines have been tested and designed according to the requirements of industry standards. Representing a significant share of the North American distributed wind market, SWCC's published certification ratings are allowing easier comparison shopping, aiding incentive programs with setting payment levels, and leading toward national requirements. Consumer labels and summary reports, including tabulated power curves, acoustic data, and tower design requirements, along with a complete list of SWCC pending applicants, are available at www.smallwindcertification.org.

The Interstate Turbine Advisory Council (ITAC), an alliance of state clean energy programs and utility incentive providers, now requires full certification for both small and medium wind turbines to be eligible for its national unified list of wind turbines that meet the performance, reliability, acoustic and warranty service expectations of incentive providers.

The growth of the distributed wind market is often tied to grants, incentives and rebates administered by Federal, state and utility programs. On-site wind turbines have great potential to serve increasing demands for distributed generation and can provide a cost-effective solution for many homes, farms, schools and other end-users. Performance and reliability obstacles, however, have hindered greater adoption, and both consumers and agencies providing financial incentives need greater assurance of safety, functionality, and durability to justify investments. Certification helps prevent unethical

marketing and false claims, thereby ensuring consumer protection and industry credibility. Independent field testing has been conducted for less than half of the small wind turbine models on the market, and funding programs are facing risks of high profile equipment failures.

In the absence of a standardized certification, suppliers define their own ratings, which can vary drastically from typical operation. In the past several years, several states, including California and New Jersey, suspended their small wind incentive programs due to performance issues of awarded projects. A judge in Minnesota recently ordered a wind turbine supplier to stop selling units due to a lawsuit alleging broken promises on revenue projections. These issues highlight poor use of public funds and have led to expensive, high profile investigations and bad press.

The standardized certification process supplies easy-to-understand labels that allow buyers to make "apples-to-apples" comparisons of different wind turbine models, and agencies to have a consistent approach to objectively determine eligibility for funding. Certification requirements can help prevent the installation and interconnection of faulty equipment, and ensure that on-site wind energy dollars are spent effectively and lead to positive publicity and public awareness.

SWCC has received over 50 Notices of Intent to Apply for Certification since its inception. SWCC certified its first wind turbine model in 2011 and became an accredited certification body in 2012. SWCC has recently issued its first medium wind turbine power performance certification along with a new Conditional Temporary Certification, bringing the tally to ten wind turbine models now SWCC-certified. In addition, five other models are currently collecting data at their respective testing sites, and several more are taking steps toward certification.

SWCC certification has been identified as a pathway to eligibility for most of the leading wind incentive programs nationwide, and numerous programs are have taken steps to require independent certification for small and medium wind turbines to be eligible for funding. The time is now for South Dakota to follow suit and ensure the continued development of the distributed wind sector. To provide perspective, SWCC has included information on wind incentive programs already requiring or expecting to require certification, including links to individual programs administered by states.

SWCC is an independent non-profit organization with the public purpose of providing certification services. A three-member Certification Commission makes all certification decisions. SWCC Commissioners are qualified and independent industry experts appointed by the SWCC Board of Directors. The Board includes representatives of different stakeholder groups and includes three directors (out of 11) who represent the industry sector. SWCC Bylaws and operating procedures prevent conflicts of interest in certification decisions.

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

Sincerely,

Larry Sherwood
Executive Director

Attachments: SWCC Recommended Language for SD PUC on Wind Turbine Certification
Links to State Distributed Wind Incentive Programs

SWCC Recommended Language for SD PUC on Wind Turbine Certification
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Wind turbines eligible for certification to the AWEA Small Wind Turbine Performance and Safety Standard (AWEA Standard 9.1-2009) are electricity-producing wind turbines with a swept area up to 200 m^2 (2,150 ft^2), which corresponds to a rotor diameter of about 16 meters (52 feet). Depending on the turbine design, this maximum size is a turbine producing about 50-65 kW. Both horizontal and vertical axis turbines are eligible to apply for certification as are both grid-tied and off-grid models. To date only grid-tied horizontal axis turbines have completed the process.

For "medium" wind turbines with larger rotor swept areas, SWCC offers certification for power performance and acoustic performance (Performance Certification) representing that performance testing of the turbine conforms with the requirements identified in IEC 61400-12-1 (Power Performance) and IEC 61400-11 (Acoustics).

In order to promote confidence that wind turbines installed in South Dakota have been tested for safety, function, performance and durability and to ensure consistency in ratings, SWCC recommends the following qualification language for the South Dakota Public Utilities Commission to establish a certification requirement for wind turbines:

> In order for small turbines with a swept area of 200 square meters or less and within the scope the American Wind Energy Association Small Wind Turbine Performance Standard to be eligible for South Dakota wind energy capacity credits, interconnection, or power purchase agreements, applicants must submit evidence of full certification to AWEA 9.1 (2009 or future versions) or by the Small Wind Certification Council (SWCC) or other independent accredited certification body.
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> For turbines with rotor swept areas larger than 200 m^2 the turbine must carry up-to-date certifications to IEC 61400-12-1 (2005 or future versions) and IEC 61400-11 (2006 or future versions) by an accredited certification body; carry certification to either UL 6142 or UL 6140 by an accredited certification agency; and either (a), (b) or (c) below:
>
> (a) Carry an up-to-date Design Evaluation certification to IEC 61400-1 (2005 or future version), by an accredited certification body,
>
> (b) Carry an up-to-date Design Evaluation certification to a U.S. National Standard for mid-size wind turbines by an accredited certification body, or
>
> (c) Provide evidence of extensive operational history with at least 500,000 hours of fleet operation, at least 25 operating wind turbines, and at least 2 years of operation from 5 wind turbines.
>
> The required wind turbine safety and performance standards certification must be provided by a certification body accredited to certify wind turbines to the AWEA 9.1 and IEC 61400 Standards by an accreditation body which is a signatory to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA).
>
> The South Dakota PUC may require additional documentation of performance, safety and durability, such as reported production from one or more retail installations in North America with owner/operators available for interview. Certified turbines may also be removed for safety, durability, performance, acoustic or other concerns at SD PUC'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, SD PUC staff should be authorized to rescind eligibility for products experiencing failures or poor operational performance, reliability, or warranty support.

Requests for wind energy capacity credits, interconnection, or power purchase agreements made based on substantially inflated claims should not be approved, so that valuable ratepayer funds can be made available to products with dependable performance estimates and demonstrated compliance with safety standards to aid customer satisfaction and adoption of distributed wind technology.

Links to State Distributed Wind Incentive Programs

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

Massachusetts Clean Energy Center (MassCEC)
www.masscec.com/solicitations/commonwealth-wind-micro-wind
Discussion of SWCC requirement:
http://images.masscec.com.s3.amazonaws.com/uploads/programdocs/Commonwealth%20Wind%20Micro%20Wind/CW-1207-SmallWindStepByStepGuide.pdf

NV Energy WindGenerations Incentive Program
www.nvenergy.com/renewablesenvironment/renewablegenerations/windgen/index.cfm

New York State Energy Research and Development Authority (NYSERDA)
www.nyserda.ny.gov/Funding-Opportunities/Current-Funding-Opportunities/PON-2439-On-Site-Wind-Turbine-Incentive-Program.aspx
www.nyserda.ny.gov/Funding-Opportunities/Current-Funding-Opportunities/-/media/Files/FO/Current%20Funding%20Opportunities/PON%202439/2439summary.ashx

Energy Trust of Oregon
energytrust.org/shared-resources/info/small-wind-turbines.aspx?src=residential

Vermont Small Scale Renewable Energy Incentive Program
www.publicservice.vermont.gov/topics/renewable_energy/cedf

The Interstate Turbine Advisory Council (ITAC) is an alliance of clean energy programs and utility incentive providers working jointly to tackle the challenges, and promote the potential, of the small and mid-scale wind market. www.cleanenergystates.org/projects/ITAC/

The following programs have expressed interest in opportunities to require certification for small wind turbines:

California Public Utility Commission (CPUC)
www.cpuc.ca.gov/PUC/energy/DistGen/sgip/index.htm

Iowa Energy Center Alternate Energy Revolving Loan Program (AERLP)
www.iowaenergycenter.org/alternate-energy-revolving-loan-program-aerlp/

Illinois Solar and Wind Rebate Program
www.ildceo.net/dceo/Bureaus/Energy_Recycling/Energy/Clean+Energy/01-RERP.htm

Maryland Energy Administration Windswept Grant Program
energy.maryland.gov/windswept/index.html

Efficiency Maine Wind Energy Incentives
www.efficiencymaine.com/renewable-energy/wind

Minnesota Department of Commerce
mn.gov/commerce/energy/consumers/Wind-Systems/Small-Wind-Systems.jsp

Wisconsin's Focus on Energy
www.focusonenergy.com/wps/business/bundle-bonus/qualified-projects