

# North American Certification for Small Wind Turbines

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# Problem

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- 25% of turbines have certified test results (probably a high estimate)
- Less than half of turbines have been tested

(From SWCC survey of manufacturers)



# States

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- States want performance certification
  - Funding for developing SWCC
  - Requirements for turbines to receive state incentives



# North American Hardware Certification

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- Turbine Hardware Performance Standard (AWEA Standard)
- Turbine Field Tests
- Independent Certification Body (Small Wind Certification Council)

*All three parts are necessary for certification, allowing "apples-to-apples" comparisons of different small wind turbine models*



# SWCC Initial Scope

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- Newly manufactured turbines that fall under the IEC 61400-2 limit of 200 m<sup>2</sup> (2150 ft<sup>2</sup>) swept area, ~65 kW
- Horizontal and vertical axis turbines
- Grid-tied and off-grid turbines are eligible, but Standard only covers turbines which generate electricity
- SWCC Board of Directors may consider expanding certification to larger turbines at a later date



# SWCC Certification Label

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- SWCC Rated Annual Energy
  - (@ one-year average wind speed of 11.2 mph - 5 m/s)
- SWCC Rated Sound Level
  - (level not exceeded 95% of time with average wind speed of 11.2 mph - 5 m/s)
- SWCC Rated Power
  - (@24.6 mph - 11 m/s)
- Meets Safety and Durability Requirements



# SWCC Development

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- ✓ Phase 1: Develop Organization Plan
- ✓ Phase 2: Incorporate
- Phase 3: Hire Staff and Develop Policies & Procedures (underway)
- Phase 4: Begin Operations
  - Interstate Renewable Energy Council facilitated Phase 1 and 2 and has assisted with Phase 3
  - SWCC will begin to accept applications in mid to late 2009, *pending sufficient funding and adoption of AWEA Standard*



# SWCC Funders to Date

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- Nevada State Office of Energy
- NYSERDA
- Energy Trust of Oregon
- Wisconsin Division of Energy
- CanWEA (funds from NRCan)
- Casper College (Wyoming)
- Iowa Energy Center
- National Renewable Energy Laboratory

*Fees are expected to cover one-third of Year 1 expenses increasing to 100% in Year 5*



# Receive Information on SWCC Process

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- <http://www.smallwindcertification.org>
- Click “Get E-mail Updates”



# For more information

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