STATE CLEAN ENERGY PROGRAM GUIDE

EXECUTIVE SUMMARY: STATE-BASED FINANCING TOOLS TO SUPPORT DISTRIBUTED AND COMMUNITY WIND PROJECTS *AND* SUPPORTING ON-SITE DISTRIBUTED WIND GENERATION PROJECTS

Clean Energy States Alliance **July 2011**

The U.S. remained one of the fastest-growing markets for wind in the world in 2009 and 2010, despite global economic recession. 10,000 MW of new wind capacity, representing a 33 percent increase in total capacity, was installed in the U.S. in 2009, while 5,000 MW was added in 2010. Public support for community and distributed on-site wind projects played an important role in driving wind energy growth. Additionally, federal and state policies and programs were key drivers of increased growth of wind power installations.

With funding from the Department of Energy's Wind Powering America program, Clean Energy States Alliance (CESA) created two briefing guides for state officials: *Supporting On-Site Distributed Wind Generation Projects* and *State-Based Financing Tools to Support Distributed and Community Wind Projects*. The two briefing guides describe specific policy and finance tools that states can use to support distributed-scale wind projects. Residential, commercial, and public wind projects are discussed. A background on state clean energy fund support of wind energy and existing federal financial incentives for wind development is included in the guides.

State Support for Wind Energy: Community wind is attractive to both project developers and funders for various reasons: it builds community support for renewable energy; has a shorter lead time from site assessment to construction; is easily integrated into the local grid; and can incrementally meet local loads. Eight state clean energy funds (CA, CT, MA, NJ, NY OH, OR, and WI) provide rebates and grants for distributed wind at both the residential scale (smaller than 10 kW) and the larger commercial or public "behind-the-meter" project scale. These smaller-scale projects have been supported to help overcome high capital cost barriers and to advance market development and infrastructure for distributed and community wind. Some of the policies and programs employed by the states, and explored in *Supporting On-Site Distributed Wind Generation Projects*, include:

- Financial incentives and financing assistance
- Site assessment and feasibility support
- Net metering and interconnection policies
- Regulations allowing third-party ownership
- Model on-site wind zoning ordinances
- Green communities laws

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States also have the opportunity to employ a variety of financing tools to leverage available public funds to fill needed financing gaps. These tools can provide critical support at all stages of a project's life cycle. The most promising state financing mechanisms, which are detailed in *State-Based Financing Tools to Support Distributed and Community Wind Projects,* include:

- Feasibility study grants and site assessment support
- Pre-development loans
- Equipment procurement loans
- Construction (bridge) financing
- Permanent financing
- Interest rate buy-downs
- Production incentives
- RPS set-asides
- Third-party ownership

These financing mechanisms help defray the costs of on-site wind projects, which can be more than twice as expensive as utility-scale projects on a per-kW basis. To this end, states are providing resources and support for the soft costs of project development through anemometer loan programs, feasibility study grants, and engineering consulting services. In addition, state legislatures and public utility commissions have standardized and simplified the process for interconnection. Prior to uniform and equitable interconnection standards, developers had to wait long periods and pay high upfront fees for connecting to the grid. In conjunction with these interconnection standards, many states have instituted net metering rules to capture and credit all surplus generation. The best net metering practices allow monthly carry-over at full retail rate and do not limit net metering as a percent of a utility's peak demand. Community net metering allows a municipality, neighborhood, or grouping of customers to consolidate meters to measure net excess generation. Green Communities Laws often allow for neighborhood net metering. In addition, Green Communities Laws create approved renewable development zones and provide as-of-right siting.

Another policy mechanism states use to advance on-site wind development is third-party ownership. Third party ownership models allow a private developer to build, operate, and own a wind project at a hose site and to sell the electricity produced directly to the host facility under a long-term power purchase agreement. Third-party owners often have the upfront capital and the experience to develop, construct, and maintain these systems. In return, they receive all the state and federal tax benefits from the project.

Several states have developed model zoning ordinances for small wind. These model ordinances can be used to manage and approve small projects, defines either by tower height or turbine size. Michigan's wind zoning ordinance differentiates between on-site and utility grid systems, and Massachusetts has one model wind ordinance that addresses on-site and utility-scale projects and a separate model for small wind systems under 60 kW. Zoning ordinances for mid-scale and larger on-site generation projects do not exist.

To further the development and deployment of community-scale wind, states can continue to build local support through the policies and financing tools presented in these guides.

Supporting On-Site Distributed Wind Generation Projects is available at: http://www.cleanenergystates.org/assets/Uploads/Resources-pre-8-16/CESA-StateProgramGuide-onsite-wind-projects2010.pdf.

State-Based Financing Tools to Support Distributed and Community Wind Projects is available at: http://www.cleanenergystates.org/assets/Uploads/Resources-pre-8-16/CESA-state-financing-tools-wind2010.pdf.