PUBLIC SERVICE COMMISSION OF MARYLAND

Annual Report on the Status of Wind-Powered Generating Stations In the State of Maryland

Pursuant to
Section 2, Chapter 163, Acts of 2007

Prepared for
the Honorable Martin O'Malley, Governor of Maryland,
the Senate Finance Committee, and
the House Economic Matters Committee

February 1, 2009

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CURRENT LAW

PSC Reporting Requirements

Under Section 2 of Chapter 163 of the Acts of 2007, for a three-year period ending June 30, 2010, the Public Service Commission ("Commission") must provide a report to the Governor, the Senate Finance Committee, and the House Economic Matters Committee on the following:

(1) the number of applications for and the locations of wind–powered generating stations for which approval is sought under § 7–207.1(a)(1)(ii) of the Public Utility Companies Article, as enacted by this Act;
(2) the status of the applications and the extent to which the wind–powered generating stations have been constructed after obtaining approval from the Commission in accordance with this Act; and,
(3) the status of any regulatory actions undertaken by other State or local agencies with respect to the wind–powered generating stations.

This Report pertains to Calendar Year 2008 and is based on information as of February 1, 2009.

Certificate of Public Convenience and Necessity ("CPCN")

Section 7-207 of the Public Utility Companies Article, *Annotated Code of Maryland* ("PUC Article") requires a person to obtain approval from the Commission — in the form of a Certificate of Public Convenience and Necessity ("CPCN") — before the person may construct a generating station in Maryland. However, § 7-207.1 of the PUC Article expressly grants an exemption from the CPCN requirement for a generating station that produces electricity from wind if the generating station is land-based, less than or equal to 70 megawatts in capacity, and the electricity produced is sold only on the wholesale market pursuant to an interconnection, operation, and maintenance agreement with the local electric company. A person seeking such an exemption is required to obtain approval from the Commission before constructing the wind generating station. Section 7-207.1 sets forth the requirements that must be met in order for a generating station to obtain approval from the Commission. Section 20.79.01.03 of the Code of Maryland Regulations ("COMAR") provides further details under which a person may file an application for an exemption of the CPCN requirement for the construction of a generating station that meets the required conditions. In addition to the application, the applicant must file necessary supplementary information from the local electric company.[1] The Commission under COMAR Section 20.79.01.02 does not require any approval prior to constructing small generating facilities with a capacity that is less than 373 kilowatts ("kW").

[1] PUC Article § 1-101(h) defines "electric company" as a person who physically transmits or distributes electricity in the State to a retail electric customer.

CPCN Exemptions

Effective July 1, 2007, the CPCN exemption provisions of § 7-207.1 of the PUC Article were amended to include certain generators that produce electricity from wind.[2] This section provides that a generating station that produces electricity from wind may be exempted from the CPCN requirement if:

1. the generating station is land-based;
2. the capacity of the generating station does not exceed 70 megawatts ("MW");
3. the electricity that may be exported for sale from the generating station to the electric system is sold only on the wholesale market pursuant to an interconnection, operating, and maintenance agreement with the local electric company; and
4. the Commission provides an opportunity for public comment at a public hearing.

NUMBER OF APPLICATIONS AND LOCATIONS

Pursuant to § 7-207.1 of the PUC Article, there have been two applications submitted to the Commission in 2008 for a CPCN exemption for wind-based generation under the criteria of the amended statute:

- On January 23, 2008, Criterion Power Partners, LLC ("Criterion") filed an application for Commission approval for a 70 megawatt wind-powered generating station to be located in Garrett County. The application has been granted, and a CPCN exemption was approved by the Commission on October 29, 2008.
- On November 5, 2008, Dans Mountain Wind Force, LLC ("Dans Mountain") filed an application for Commission approval for a 69.6 MW wind generation facility to be located in western Allegany County. That application is pending before the Commission.

The Commission notes that prior to the July 1, 2007 statutory revisions establishing a wind-based CPCN exemption process, two CPCN applications had been filed with the Commission for wind projects that would appear to meet the qualification as a CPCN-exempt wind facility:

- US Wind Force LLC received a CPCN for a 40 megawatt wind farm to be located on Savage Mountain in Garrett and Allegany Counties on March 20, 2003.[3]
- Synergics, which is discussed in greater detail below, filed a CPCN request for a 40 megawatt wind project in Garrett County.[4]

In addition to these two wind farms that applied for a CPCN, the Commission also granted a CPCN on March 26, 2003 to Clipper Windpower, Inc., under the § 7-207(e) criteria, for a 101 MW

[2] *See* PUC Article § 7-207.1(a)(1)(ii).

[3] *Re Savage Mountain, U.S .Wind Force, LLC,* 94 MD PSC 29, 53 (2003). Revised by Order No. 81587 (Commissioner Brenner dissenting in part) (September 7, 2007), which amended a CPCN condition to extend the date by which construction was to commence to March 20, 2010.

[4] *See In the Matter of the Application of Synergics Wind Energy, LLC for a Certificate of Public Convenience and Necessity to Construct a 40 MW Generating Station in Garrett County, Maryland,* Case No. 9008.

wind-powered plant in Garrett County.[5] The Clipper Windpower, Inc. plant, at 101 MW, would not qualify for a CPCN exemption under § 7-207.1(a)(1)(ii). [6]

With regards to Synergics, the CPCN was granted by a Proposed Order from one of the Commission's Hearing Examiners on October 30, 2006; however, that Proposed Order was appealed. While under appeal, the statutory requirement was amended to provide for the wind-based CPCN exemption, and as a result, Synergics obtained the option to withdraw its CPCN application. On May 7, 2008, Synergics filed a request with the Commission to withdraw its application. On May 8, 2008, the Commission granted the request. The new statutory requirements in § 7-207.1 would allow Synergics the ability to file for a CPCN exemption for its wind powered generating station. Appendix A summarizes the wind projects filing CPCNs and CPCN exemptions and the current status of the proposals.

Currently there are two potential wind energy projects in Garret County under consideration that may come to the Commission for an exemption approval in 2009. One has design capacity of 50 MW and the other has a capacity of 60 MW.

APPLICATION STATUS AND EXTENT OF CONSTRUCTION

In 2008, developers of two separate wind-powered generation plants applied to the Commission for CPCN exemptions: Criterion and Dans Mountain. After Criterion filed an application for approval of an exemption of the CPCN requirement on January 23, 2008, the Commission conducted a public hearing at Garrett College in Fort McHenry, Maryland on March 6, 2008. The Commission approved Criterion's CPCN exemption request on October 29, 2008. On November 26, 2008, Criterion filed a report that updated its status to the Commission, which stated that it planned to start construction in 2009, but no specific date was given.

The Dans Mountain Application that was filed on November 5, 2008 is currently being reviewed and analyzed by Commission Staff to determine whether the proposed generating station meets the conditions for an exemption. After review, Commission Staff will provide the Commission with a recommendation. The Commission delegated to its Hearing Examiner Division the conduct of a public hearing as required under § 7-207.1 of the PUC Article. The public hearing took place on January 22, 2009 in Frostburg, Maryland.

Besides the Criterion and Dans Mountain projects, none of the other commercial wind-powered generation plant applicants receiving a CPCN from the Commission have completed the construction phase. Appendix A provides the status of large commercial wind projects in the State of Maryland.

REGULATORY ACTIONS BY STATE OR LOCAL AGENCIES

In 2008, Maryland State agencies did not undertake additional regulatory actions with respect to wind-powered generating stations. At the county level, the Power Plant Resource Program

[5] *Re Clipper Windpower, Inc.*, 94 MD PSC 54, 87 (2003).

[6] The 101 MW Clipper Windpower, Inc. project was not built and the CPCN expired. That project was downsized and resubmitted in January 2008 as the Criterion project for which a CPCN exemption was sought and ultimately granted.

("PPRP") within the Department of Natural Resources reports that Allegany County is undertaking a process to develop zoning requirements for commercial wind turbines, and Garrett County implemented zoning requirements for the Deep Creek Lake watershed area.

Actions by State and Local Agencies Related to Wind and Solar Energy

In 2008, the Maryland Energy Administration ("MEA") developed generic small wind zoning ordinance guidelines for counties and municipalities to consider and potentially adopt. The document is designed as a "permitted use" ordinance to address general requirements for small wind energy systems (under 100 kW), and to help facilitate the installation and construction of small wind projects throughout the State. Permitting procedures, administration and enforcement are left to the discretion of each county. Carroll County referenced MEA's small wind zoning ordinance guidelines when it created its county zoning ordinance.

On December 19, 2008, the Board of County Commissioners for St. Mary's County approved a text amendment to allow the installation of small wind energy systems within its zoning districts, provided that the systems do not generate more than 100 kW of electricity for exclusive on-site usage.

In addition to regulatory actions, State agencies are undertaking a range of wind-related activities. MEA continues to promote the development of wind-powered generation in Maryland. PPRP has estimated the State's developable onshore wind energy potential at approximately 850 MW.[7] As the State has no installed large-scale wind energy generation, MEA continues to work with its Maryland Wind Working Group ("MWWG") to accelerate the development of wind energy in Maryland to increase its wind energy capacity in environmentally, economically and socially-responsible manners. The MWWG is a collaboration of government, industry, academia, and other wind energy stakeholders whose goal is to advance wind energy at the State and local levels. In 2008, the MWWG distributed a draft of the Maryland Wind Program Strategic Plan to the members. Facilitated by the MEA, the MWWG is funded partly through Wind Powering America, the outreach initiative of the U.S. Department of Energy's Wind Energy Program. PPRP and MWWG have identified Western Maryland, southern Chesapeake Bay and offshore as the regions of the State best suited for wind resource development.

In addition, MEA is working closely with PPRP and the Department of General Services ("DGS") to identify State or local government facilities in which renewable energy projects, such as wind and solar, would be feasible. Over the summer of 2007, MEA assisted in the review of eligible participants through a Request for Qualifications released by DGS. In partnership with PPRP, MEA has identified one such candidate site – the Town of Crisfield in Somerset County ("Crisfield") – to build a "community" wind generation facility at Crisfield's wastewater treatment plant. A feasibility study to be conducted for the Crisfield project began in 2007 and is on-going. An anemometer was installed in October 2008 to verify whether sufficient wind resources are available for a wind project at the site.

[7] Developable onshore wind energy site locations are located within five miles of the transmission grid and take into account the economic feasibility of interconnecting with the transmission grid. PPRP is currently undertaking an examination of developable offshore wind energy site locations.

In January 2008, DGS issued a Request for Proposals to select a qualified list of firms having the capability to develop and implement renewable projects, including wind energy projects. On the State's behalf, DGS intends to develop a list of qualified firms with which the State can potentially enter into either a power purchase agreement or an agreement for joint ownership of renewable energy projects at State-identified sites (either State-owned or other site locations)

Initially launched in September 2006, the State Anemometer Loan Program is currently administered by the Maryland Environmental Service ("MES") in conjunction with MEA. This program provides landowners with wind measuring devices that quantify and characterize the wind resources available at property sites. Applications are approved by MEA, while MES assembles and dissembles the anemometers at the property sites. The program is designed to empower landowners by supporting their interest in wind energy through the loan of anemometers and wind vanes, as well as providing education about wind energy development. The data collected by the anemometers allows landowners to assess the economic feasibility of using wind energy. Six anemometers are available for loan: four of which are mounted atop 30 foot towers, and two of which are mounted atop 50 foot towers. MEA granted six applications in Fiscal Year ("FY") 2008 and five in FY 2009 to use these pieces of equipment. There currently are fourteen applications for anemometers on a waiting list. In 2008, one rooftop anemometer was installed at the University of Maryland, College Park.

In addition to the State Anemometer Loan Program, an online wind energy calculator is available on the MEA website. This calculator helps Marylanders determine the feasibility of installing a wind turbine on their property. The calculator is designed to provide a quick assessment of wind resources and an approximation of the payback of the installed wind energy system.

MEA launched its pilot Windswept Grant Program ("Windswept") in November 2007 to provide grants to individuals, businesses and local governments for installing small scale wind energy systems.[8] The program helps offset a portion of the cost of small scale wind energy projects. The source of funding for the program is the Energy Overcharge Restitution Fund, and a limited number of grants are available. These grants were in the amount of $1,500 per kW for FY 2008, and increased to $2,500 per kW in FY 2009. The maximum per-project amounts are also increased, from $3,000 for residential wind systems and $5,000 for nonresidential wind systems in FY 2008, to $10,000 for either residential or nonresidential in FY 2009.

In FY 2008, MEA awarded grants totaling $24,300 to nine small wind projects. In FY 2009, seven applicants have been awarded a total of $24,500, which has exhausted the available funds. Currently 11 applicants, including two commercial and nine residential properties, are on a waiting list for Windswept grants. MEA anticipates paying out future grants with funds from the Strategic Energy Investment Fund using proceeds from the Regional Greenhouse Gas Initiative carbon allowance auctions. The following tables list the Windswept Grant Program grant awards in FY 2008 and 2009 (Table 1.) and each recipient and grant amount (Table 2.). As shown in Table 1., MEA approved grants for a total of seven projects within the residential, commercial, and local government sectors for FY 2009; as of the February 1, 2009 issuance date of this report, three of the seven projects have been completed.

[8] The program became permanent in July 2008.

Table 1. Windswept Grant Program in FY 2008 and FY 2009

	Projects Approved for Grants				Projects Completed				Planned Capacity (KW)	Completed Capacity (KW)
Fiscal Year	Total	Res.	Com.	Local Gov't	Total	Res.	Com.	Local Gov't		
2008	9	8	0	1	9	8	0	1	16.2	16.2
2009	7	5	1	1	3	3	0	0	32.2	21.8

Note: Res., Com., and Local Gov't are abbreviations for residential, commercial and local government respectively.

Table 2. List of Grant Awarded Small Wind Projects in Maryland

Year	**City**	**County**	**Grant Amount**	**Capacity (kW)**
FY08	Mount Airy	Carroll	$2,700	1.8
FY08	Rhodesdale	Dorchester	$2,700	1.8
FY08	East New Market	Dorchester	$2,700	1.8
FY08	East New Market	Dorchester	$2,700	1.8
FY08	East New Market	Dorchester	$2,700	1.8
FY08	East New Market	Dorchester	$2,700	1.8
FY08	Chestertown	Kent	$2,700	1.8
FY08	Crisfield	Somerset	$2,700	1.8
FY08	Tilghman	Talbot	$2,700	1.8
FY09	Hampstead	Carroll	$4,500	1.8
FY09	Cambridge	Dorchester	$10,000	10.0
FY09	Madison	Dorchester	$10,000	10.0
Total			**$48,800**	**38.0**

In July 2007, the Governor pledged to install one demonstration scale renewable energy project at one school in each county.[9] Eight projects are completed, and of these two are wind projects. The first was the installation of a 1.8 kW Skystream small wind energy system at Crisfield High School in Somerset County. The turbine was installed within view of its baseball field to maximize its visibility. Crisfield High has incorporated the turbine into the science curriculum at the school, and students are able to observe the real time wind generation data. The turbine also demonstrates to local residents exactly how a wind turbine works. The second school-based wind project is located at Beach Elementary School in Calvert County, which is on target to finish the installation of a 5 kW system by the end of January 2009.

[9] The Clean Energy School Program.

The Clean Energy Production Tax Credit ("Credit"),[10] enacted in 2006, offers Marylanders a State income tax credit for electricity generated by qualified resources, including wind, of 0.85 cents per kilowatt hour ("kWh"), and 0.50 cents per kWh for electricity generated from co-firing a qualified resource with coal. MEA has established regulations including eligibility requirements and an application process for a tax credit for such projects.[11] This tax credit is available to individuals and corporations that build and generate electricity from qualified resources operating between January 1, 2006 and January 1, 2011. To date, there are three applicants who have installed, or are planning to install, projects that qualify for the clean energy production tax. Of the following, the first two are commercial projects and the last one is a residential project:

1. Synergics, LLC (planned) Oakland, Garret County, 40 MW;
2. Brick Ridge Restaurant, Mt. Airy, Carroll County, 0.0018 MW; and
3. East New Market, Dorchester County, 0.0018 MW.

As of June 2008, there were 45 kW of wind generation capacity that was already interconnected to the local utility companies.[12] Most are small-scale residential projects.

The Maryland Department of Natural Resources ("DNR") held two public meetings, one in Western Maryland (January 30, 2008) and one in Annapolis (January 31, 2008), to provide general information on wind energy and to obtain opinions and suggestions regarding the use of Maryland's public lands. The public process was in response to recent requests by private entities to lease property on State forestland in western Maryland for the purpose of installing wind energy generators. During the public process, DNR reached out for input from State and local elected officials, including the Savage River State Forest and Potomac-Garrett State Forest Advisory Committees, as well as other stakeholders.

In addition to the public meetings, DNR offered an online opportunity to citizens throughout the State to easily become part of the process. This web page provided the public with the same information and materials that were provided at the real-time public meetings. The public comment period ended at the close of business on March 3, 2008. The public comments posted on the web page showed that 80 percent of the total comments were against the leasing of public land, while only 16 percent were for it. On April 12, 2008, Governor O'Malley announced that public lands managed by the Maryland Department of Natural Resources would not be considered as sites for commercial wind power generation.

Finally, with regard to related State agency actions on renewable energy, a 3.8 kW hybrid solar-wind demonstration scale project was installed at Frostburg State University ("FSU") in the summer of 2007. This project was designed to overcome barriers to, and increase awareness of, wind and solar energy, bolster support for other related development activities, and stimulate interest in the implementation of other small wind projects. In 2008, FSU continued its solar-wind demonstration project. In addition, FSU offers an 8-week online course supported by on-site 3-day

[10] COMAR 14.26.06, Maryland Clean Energy Incentive Tax Credit Program.
[11] MEA Website for application requirement and procedure:
http://energy.maryland.gov/incentives/allprograms/cep_taxcredit.asp
[12] MEA sent its data request to Maryland utility companies to obtain the wind power generation interconnection data.

instruction and hands-on training.[13] The course will prepare the participants for entry level certification tests of the North American Board of Certified Energy Practitioners.

CONCLUSION

Since the effective date of the statutory revision to § 7-207.1 of the PUC Article granting wind-based generation a CPCN exemption under certain circumstances, the Commission has received two exemption applications for a wind-powered generating station. One has been granted the CPCN exemption and the other is currently pending review. Although the Commission has granted a CPCN for several wind-powered generating stations since 2003, none of these stations have been constructed to date. MEA is working to encourage and accelerate the construction and use of wind-powered generating stations. In addition, the State has programs to encourage the development of these renewable energy facilities. The Commission will continue to monitor the status of wind-energy generating station applications and construction.

[13] The course name is *Design, Installation, and Maintenance of Residential Photovoltaic and Wind Generation Systems*.

Appendix A. Status of Maryland Wind Projects

Date Granted	Company	Location	Rated Capacity (MW)	Application Date	Case Number	Exemption Application	Current Status
10-29-2008 Exemption granted	Criterion Power Partners, LLC	Garrett County	70	1-23-2008	8938	Yes	Exemption Approved 10/29/2008; Construction to begin in 2009
Exemption Application Pending	Dans Mountain, / US Wind Force, LLC	Allegany County	69.6	11-5-2008	9164	Yes	Public hearing and comments phase
10-30-2006 (Proposed Order granting CPCN issued)	Synergics Wind Energy	Garrett County	40	6-30-2004	9008	No	CPCN withdrawn: May 2008
3-20-2003 CPCN granted	Savage Mountain, / US Wind Force, LLC.	Garrett and Allegany Counties	40	8-30-2002	8939	No	Construction has not commenced; construction required to be completed by 3/20/2010
3-26-2003 CPCN granted	Clipper Windpower, Inc.	Garrett County	101	8-26-2002	8938	No	CPCN expired

Notes: In January 2008, Clipper—under the name Criterion Power Partners, LLC—filed a CPCN Exemption for 70 MW of wind powered energy. The US Wind Force and Synergics projects were submitted before enactment of Chapter 163 of 2007, which provides qualifying wind facilities with the option of applying for a CPCN exemption. Dans Mountain and Savage Mountain are wholly owned subsidiaries of U.S. Wind Force, LLC.