

## **FINAL TECHNICAL REPORT**

**Project Title:** Mid-Atlantic Regional Wind Energy Institute

**Covering Period:** 12/1/2009 – 11/30/2011

**Date of Report:** December 20, 2011

**Recipient:** Citizens for Pennsylvania's Future (PennFuture)

**Award Number:** DE-EE0000500

**Working Partners:** NREL

**Cost-Sharing Partners:**

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## **EXECUTIVE SUMMARY**

As the Department of Energy stated in its *20% Wind Energy by 2030* report, there will need to be enhanced outreach efforts on a national, state, regional, and local level to communicate wind development opportunities, benefits and challenges to a diverse set of stakeholders. To help address this need, PennFuture was awarded funding to create the Mid-Atlantic Regional Wind Energy Institute to provide general education and outreach on wind energy development across Maryland, Virginia, Delaware, Pennsylvania and West Virginia.

Over the course of the two-year grant period, PennFuture used its expertise on wind energy policy and development in Pennsylvania and expanded it to other states in the Mid-Atlantic region. PennFuture accomplished this through reaching out and establishing connections with policy makers, local environmental groups, health and economic development organizations, and educational institutions and wind energy developers throughout the Mid-Atlantic region.

PennFuture conducted two regional wind educational forums that brought together wind industry representatives and public interest organizations from across the region to discuss and address wind development in the Mid-Atlantic region. PennFuture developed the agenda and speakers in collaboration with experts on the ground in each state to help determine the critical issue to wind energy in each location. The sessions focused on topics ranging from the basics of wind development; model ordinance and tax issues; anti-wind arguments and counter points; wildlife issues and coalition building.

In addition to in-person events, PennFuture held three webinars on 1) Generating Jobs with Wind Energy; 2) Reviving American Manufacturing with Wind Power; and 3) Wind and Transmission.

PennFuture also created a web page for the institute (<http://www.midatlanticwind.org>) that contains an online database of fact sheets, research reports, sample advocacy letters, top anti-wind claims and information on how to address them, wind and wildlife materials and sample model ordinances. Video and presentations from each in-person meeting and webinar recordings are also available on the site.

At the end of the two-year period, PennFuture has accomplished its goal of giving a unified voice and presence to wind energy advocates in the Mid-Atlantic region. We educated a broad range of stakeholders on the benefits of wind energy and gave them the tools to help make a difference in their states. We grew a database of over 500 contacts and hope to continue the discussion and work around the importance of wind energy in the region.

## COMPARISON OF ACCOMPLISHMENTS WITH GOALS

PennFuture did not receive access to its funding award until the fourth quarter of the first year of the grant. However, even with this setback we completed the majority of the goals we set out to accomplish. We had planned to complete wind farm tours for legislators in Pennsylvania and West Virginia; three webinars; three in-person wind education forums; develop a web page and content; and create and distribute a wind advocate's toolkit.

We accomplished all of these goals with the exception of the wind farm tours for legislators. We also combined two of our in-person meetings into one to gain a broader scope and, therefore, had only two meetings. An overview of our accomplishments is detailed in the Project Activities section below.

## PROJECT ACTIVITIES

### Wind Energy Forums

PennFuture successfully held two in-person regional wind energy forums.

We worked with regional stakeholders including AWEA, the Southern Alliance for Clean Energy, Mid-Atlantic Renewable Energy Coalition and wind energy companies to gain support and insight for where to hold each meeting and what topics were most applicable to the selected location. We also worked with these stakeholders to build our contact list for attendees and to strategize as to what groups to include.

For each event, we created specific fact sheets for each location and posted materials to our online wind advocate toolkit. We also posted video and presentations from each event online.

#### *Roanoke, Virginia Forum*

The first meeting was held in Roanoke Virginia on April 20, 2011 with 43 attendees ranging from environmental groups, economic development organizations, energy consultants, state agencies and municipalities to wind industry experts and companies. The event was timely as the first wind farm in the state is set to be built just outside of Roanoke, and this meeting provided timely education on the true benefits of wind energy as well as addressing the many questions and concerns of stakeholders in the region. The agenda from the event is posted below:

#### Virginia Wind Energy Forum Agenda

8:00 – 8:45 **Why Wind: The Case for Wind Energy** Bruce Burcat, Executive Director, Mid-Atlantic Renewable Energy Coalition (MAREC)

8:45 – 9:30 **Economic Development Opportunities from Wind Energy**  
Brad Lystra, Manager of State Campaigns, American Wind Energy Association (AWEA)

9:30 – 10:00 **Wind and the Local Community** Jim Marker, Secretary, Board of Somerset County, Pennsylvania

10:00 – 10:15 **Break**

10:15 – 12:15 **Panel of Virginia Wind Experts**

Moderated by Bruce Burcat, Executive Director, MAREC

- **Wind Regulatory and Approval Process in Virginia**, Carol Wampler, Renewable Energy Policy Manager, Virginia DEQ
- **Wind Initiatives and Project Siting in Virginia**, Jon Miles, Director, Virginia Center for Wind Energy at James Madison University
- **State of Wind Development in Virginia: Opportunities and Challenges**, Don Giecek, Business Development Manager, Invenergy

11:15 – 12:15 **Open Discussion and Questions Session amongst Panelists and Attendees**

12:15 – 1:15 **Lunch**

1:15 – 1:45 **Pennsylvania's Model Wind Ordinance** Courtney Lane, Senior Energy Policy Analyst, PennFuture

1:45 – 2:45 **Wind and Wildlife** Dale Strickland, President & Senior Ecologist, West Inc.  
**Pennsylvania's Wind and Wildlife Collaborative**, Courtney Lane, Senior Energy Policy Analyst, PennFuture

2:45 – 3:45 **The Advocate's Toolkit** Alex Fuller-Young, Outreach Coordinator, PennFuture

3:45 - 4:15 **Messaging** Heather Sage, Vice President, PennFuture

### *Eastern Shore Wind Forum*

The second wind energy forum was held at the University of Maryland Eastern Shore on September 14, 2011 and titled *Harvesting Wind Energy on the Delmarva Peninsula*. We had originally planned to have a meeting in Delaware and in West Virginia, however, the West Virginia State Wind Working Group's annual meeting was set to occur in September as well and based upon discussions with advocates and developers on the ground, we were informed that there was considerable need for education on coastal on-shore wind development. Consequently, we chose Maryland's eastern shore as the avenue to target attendees from coastal Virginia, Maryland and Delaware. There were 104 registered and 92 attendees for this event ranging from environmental groups, economic development organizations, energy consultants, state agencies and municipalities to wind industry experts and companies. The event focused on land-based applications on the Eastern Shore of the Mid-Atlantic. The agenda from the event is posted below:

## **Eastern Shore Wind Energy Forum Agenda**

- 10:00-10:10      **Introduction and Welcome**  
Dr. Mortimer Neufville, Interim President, University of Maryland Eastern Shore
- 10:10-10:30      Senator Jim Mathias, District 38, Maryland State Senate
- 10:30–11:00      **The future of wind energy on Maryland’s Eastern Shore**  
Andrew Gohn, clean energy program manager, Maryland Energy Administration
- 11:00–12:15      **Economic benefits of wind energy development**  
Moderator: Kathy Magruder, executive director, Maryland Clean Energy Center
- Benefits for local communities
    - Jim Marker, county commissioner, Somerset County, PA
  - Steps to the development process
    - Steven Volkert, business development manager, Delsea Energy
  - Workforce development
    - John Congedo, president, AC~WIND
- 12:15-1:00      **Lunch**
- 1:00-2:30      **Mitigating spatial and environmental impacts of wind energy**  
Moderator: Bruce Burcat, executive director, Mid-Atlantic Renewable Energy Coalition
- Wildlife implications
    - Dr. Paul Kerlinger, president, Curry and Kerlinger, LLC
  - Radar interference and the DoD clearinghouse process
    - David Belote, director, Department of Defense Siting Clearinghouse, Office of the Deputy Under Secretary of Defense
  - Guidelines for responsible project siting

- Jerry Redden, special projects coordinator, Hawk Corporation, University of Maryland Eastern Shore
  - Project Siting from a Developer's Perspective
    - Adam Cohen, Vice President, Pioneer Green Energy, LLC
- 2:30-2:45      **Break**
- 2:45-4:00      **Wind energy land use implications**  
Moderator: Dr. Ronald G. Forsythe, vice president for Technology and Commercialization, University of Maryland Eastern Shore
- Model ordinances
    - Courtney Lane, senior energy policy analyst, Citizens for Pennsylvania's Future (PennFuture)
  - Agricultural preservation law in Pennsylvania
    - Steve Stroman, policy director, PennFuture
  - Agricultural preservation law in Maryland
    - Carol West, executive director, Maryland Agricultural Land Preservation Foundation
- 4:00-4:30      **Wind energy messaging for local communities**
- Kurt Karsten, president, Talbot Energy Associates, LLC

## Webinars

In order to reach out to those that were not able to attend the in-person wind forums, PennFuture held a series of webinars on various wind energy topics.

1. *Generating Jobs with Wind Energy*. This webinar was held on April 2, 2011 in coordination with the Southern Appalachian Regional Wind Energy Institute (SARWEI) that is facilitated by the Southern Alliance for Clean Energy (SACE). There were a total of 51 participants on the webinar. Visual and audio recordings of the webinar were placed on the MAWEI website.
2. *Reviving American Manufacturing with Wind Power*. This webinar was held on June 10, 2011 on the benefits that wind power manufacturing provides. PennFuture was fortunate to have former Pennsylvania Governor Edward Rendell present on this webinar. A total of 100 individuals participated in the webinar. Visual and audio recordings of the webinar were placed on the MAWEI website.
3. *Transmission and Wind Energy*. This webinar was held on November 18, 2011 and detailed the importance of transmission to wind energy while offering an overview of FERC Order 1000 and how it may benefit wind energy. There were a total of 60

participants on the webinar. Visual and audio recordings of the webinar were placed on the MAWEI website.

### **Assistance to states**

Throughout the two-year grant period, PennFuture assisted several Mid-Atlantic states on a range of technical issues surrounding wind energy development.

- We participated in two meetings with Pennsylvania township supervisors in wind development regions of the state to discuss the benefits of wind energy, provide an overview of the Pennsylvania Model Wind Ordinance and answer questions on the topic from the supervisors. The first meeting was in Altoona in Southwestern Pennsylvania on March 18, 2010 with over 100 township supervisors present. The second was in Wilkes-Barre in Northeastern Pennsylvania with close to 90 supervisors present.
- In February, 2010, we assisted the State of Virginia in developing a model wind ordinance, working with Carol Wampler at the Virginia DEQ.
- In March, 2010, we worked with the Pennsylvania Department of Environmental Protection (DEP) on the proposed Wind NPDES Guidance Document. We facilitated a meeting with seven wind energy companies and representatives from the PA DEP to discuss and provide comments on the draft guidance document on wind development. The document provides for best management practices for erosion and sediment control, post-construction stormwater management and water obstruction, and encroachment technical guidance. A revised document was sent around with recommendations made by the wind industry.

This work continued and culminated in a final conference call we facilitated in July 2011 between members of the wind industry and the DEP to go over the industry's proposed changes to DEP's draft, *Wind Farm Construction Erosion and Sediment Control, Post Construction, Stormwater Management, and Water Obstruction and Encroachment Technical Guidance for Wind Farm Projects*.

### **Website**

PennFuture created and developed a website for the Mid-Atlantic Wind Energy Institute at <http://www.midatlanticwind.org>. On the website, we have an online wind advocate's toolkit which is a valuable resource library broken into the following categories:

- General information on the benefits of wind energy and myths vs. facts documents
- Information on ordinances, permitting, shadow flicker and siting
- Economic development facts, available funding, human health and wildlife interactions
- Technical information including wind integration and testimonials
- Listing of wind energy associations, coalitions and companies/developers

The website also contains all of the presentations from past events as well as webinar recordings and videos.

### **Additional outreach efforts**

Over the two-year grant period, PennFuture undertook outreach activities including the submittal of several op-eds and letters to the editor to counter harmful news articles regarding wind energy impact on bats to help provide context between the risks and benefits of wind energy compared to other power sources.

We also worked with the wind industry to prepare and submit comments on the proposed U.S. Fish and Wildlife Service wind energy guidelines.