

U.S. DEPARTMENT OF  
**ENERGY**

Office of  
**ENERGY EFFICIENCY &  
RENEWABLE ENERGY**

# Communications & Operations

2019 Wind Program Peer Review

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# Operations

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Operations is the central group for all organizational products and services, processes, and systems, including:

- Workforce Management and Organization
- Communications and Engagement
- Information Technology Services
- Project Management Coordination
- Budget Planning, Formulation, and Implementation

# Communications | Engagement

**WETO promotes interaction, coordination, and cooperation with key external stakeholders through direct dialogue and by producing high-level events, summits, and executive roundtables**

- **Collaboration with industry and NGOs:**
  - Wind Industry Partnership Summit
  - Offshore Wind Executive Summit
  - Creating Pathways to Success for Supersized Wind Turbine Blades
  - Drivetrain Reliability Collaborative
  - 2017 Wind Vision Roadmap Update engaged nearly 100 stakeholders
  - Regular meetings with AWEA, DWEA, EPRI, conference organizers, etc.
- **Interagency**
  - MOUs on radar and offshore wind for collaboration with Dept. of Defense, Federal Aviation Administration, National Oceanic and Atmospheric Administration, Homeland Security, and Bureau of Ocean Energy Management
  - Work closely with NOAA on wind forecasting
- **International**
  - Participate in 14 International Energy Agency research tasks, two of which we lead (environmental impact mitigation and offshore codes)
  - International presentations on research e.g. grid integration

# Communications | Information Dissemination

WETO provides high-quality, impactful, objective communications products and information services to the right people at the right time—informing them of the work WETO does and demonstrating its impact

- Press releases, progress alerts, blogs, success stories—50-60 news items/year
- Breaking News email list-serve (~1/mo.)—16,995 subscribers in FY17, 26,196 in FY18
- Wind R&D Newsletter (biannual)—35,593 subscribers in FY17, 38,813 in FY18
- Social media—Twitter, Facebook, Instagram, LinkedIn
- Website—Over 1 million sessions in FY17, up 16% from FY16
- Media pitching and interviews—DOE and lab staff are widely respected and viewed as experts by the media, frequently asked to comment on industry trends, etc.
- Publications, factsheets
- Events
- Internal communications—timely response to inquiries from DOE and EERE management, Congress, etc.

# Communications | Project Results

**WETO coordinates with project awardees to ensure they are communicating project results**

- **Annual communications review of lab AOPs**—Labs often reach targeted technical audiences through conference presentations, workshops, and scholarly journal articles, which we encourage
- **Quarterly lab reviews**—added public outreach/industry engagement in 2018
- **Communications engagement with FOA awardees**
  - Review public documents, coordinate on press releases and publications
  - Data management plans
- **Publications**
  - Office of Science and Technical Information (OSTI) and Public Access Gateway for Energy and Science (PAGES)
  - Wind Technology Resource Center
  - Inclusion in WETO Breaking News, R&D Newsletter, website, projects map
- **WETO R&D Projects Map**

# WETO Projects Map

**PROGRAM AREA**  
Select Areas ▾

**AWARD TYPE**  
Select Award Type ▾

**RECIPIENT ORGANIZATION TYPE**  
Select Recipient Type ▾

**STATE**  
Select State ▾

**STATUS**  
Select Status ▾

Show 25 ▾ entries

Search:

**PROGRAM AREA**  
Select Areas ▾

- Atmosphere to electrons: Plant Optimization and Resource Characterization
- Distributed Wind
- Environmental Impacts and Siting
- Grid Integration
- Next-Generation Technology Development and Manufacturing
- Offshore Wind
- Testing
- Workforce Development, Education, and Stakeholder Engagement

Select Recipient...

**STATE**  
Select State ▾

**STATUS**  
Select Status ▾

Show 25 ▾ entries

Search:

Showing 1 to 25 of 277 entries

Project Title	Awardee	Program Area	DOE Funding Amount	Recipient Type	Award Type	State(s)
National Offshore Wind Energy Grid Interconnection Study	ABB, Inc.	Grid Integration; Offshore Wind	\$900,000	Private Industry	Competitive Funding Opportunity Announcement	NC; NC; PA; NY; CO
Unweighted Direct Drive		Next-Generation Technology			Competitive	

# Wind Technology Resource Center

## Wind Technology Resource Center

U.S. DEPARTMENT OF **ENERGY** | Energy Efficiency & Renewable Energy

[EERE Wind Program](#) » [Wind Technology Resource Center](#)

Use the Wind Technology Resource Center to find technical resources from the Energy Department on the specific technologies or wind energy research topics through publications, data, analysis, and R&D labs and facilities.

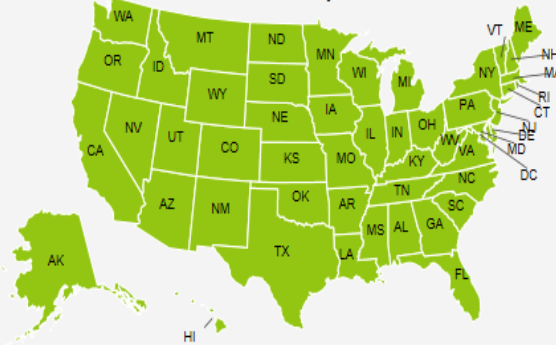
[Edit Block](#)

### Search for Resources

### Browse by R&D Topic

### Browse by Technology/Application

### Find Resources by State



### Other Technical Data & Information

- [OpenEI: Wind Power](#)—a wiki featuring topics crowd-sourced from industry and government agencies.
- [Wind Energy Data and Information Gateway](#)—an integrated online system for

## Wind Technology Resource Center

[EERE Wind Program](#) » [Wind Technology Resource Center Home](#) » Search Results

[Printable Version](#)

### Narrow Results

#### By Keyword

[Keyword Search Tips](#)

#### R&D Topic

##### Select All

- Controls & Reliability
- Design Methods, Tools & Standards
- Environmental Impacts
- Grid Integration & Transmission
- Manufacturing
- Market Analysis
- Policy Analysis
- Resource Characterization, ...

#### Technology/Application

##### Select All

- Blades & Rotors
- Components
- Distributed Wind

### Search Results

#### [Field Test of Wake Steering at an Offshore Wind Farm](#) | 2017

In this paper, a field test of wake steering control is presented. The field test is the result of a collaboration between the National Renewable Energy Laboratory (NREL) and Envision Energy, a smart energy management company and turbine manufacturer. In the campaign, an array of turbines within an operating commercial offshore wind farm in China have the normal yaw controller modified to implement wake steering according to a yaw control strategy. The strategy was designed using NREL wind farm models, including a computational fluid dynamics model, SOWFA, for understanding wake dynamics and an engineering model, FLORIS, for yaw control optimization. Results indicate that, within the certainty afforded by the data, the wake-steering controller was successful in increasing power capture, by amounts similar to those predicted from the models.

#### [Wind Energy Facilities](#) | 2017

This book takes readers inside the places where daily discoveries shape the next generation of wind power systems. Energy Department laboratory facilities span the United States and offer wind research capabilities to meet industry needs. The facilities described in this book make it possible for industry players to increase reliability, improve efficiency, and reduce the cost of wind energy -- one discovery at a time. Whether you require blade testing or resource characterization, grid integration or high-performance computing, Department of Energy laboratory facilities offer a variety of capabilities to meet your wind research needs.

#### [Development of a 5 MW Reference Gearbox for Offshore Wind Turbines](#) | 2016

This paper presents detailed descriptions, modeling parameters and technical data of a 5MW high-speed gearbox developed for the National Renewable Energy Laboratory offshore 5MW baseline wind turbine. The main aim of this paper is to support the concept studies and research for large offshore wind turbines by providing a baseline gearbox model with detailed modeling

# Operations

- **Merit Reviews**

- WETO leverages a uniform Lab Call platform and merit review process to identify, select, and inform new and continuing science and technology projects that have the maximum potential to accomplish mission objectives

- **Annual Operating Plans (AOPs)**

- Standard performance agreement between EERE technology offices and the national laboratories
- Developed collaboratively between June and September for the following fiscal year beginning 1 October
- Operations facilitates project negotiations and coordinates input of annual project attributes while employing rigorous quality assurance practices to safeguard data integrity

- **Quarterly Reporting**

- Operations collects, distills, and aggregates quarterly project data for active project management purposes
- Quarterly reports provide updates on performance metrics and insight into project financial status