cleanenergy.org
Southern Alliance for Clean Energy

1.866.522.SACE
www.cleanenergy.org

P.O. Box 1842
Knoxville, TN 37901
865.637.6055

34 Wall Street, Suite 607
Asheville, NC 28801
828.254.6776

250 Arizona Avenue, NE
Atlanta, GA 30307
404.373.5832

P.O. Box 8282
Savannah, GA 31412
912.201.0354

P.O. Box 1833
Pittsboro, NC 27312
919.360.2492

P.O. Box 50451
Jacksonville FL 32240
904.710.5538

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Jacques Beaudry-Losique
Program Manager
Wind and Water Power Program
U.S. Department of Energy
1000 Independence Avenue, Southwest
Washington, DC 20585-0001

Chris Hart, Ph.D.
Offshore Wind Manager
Wind and Water Power Program
U.S. Department of Energy
1000 Independence Avenue, Southwest
Washington, DC 20585-0001

Dear Mr. Beaudry-Losique,

In mid-September 2010, the U.S. Department of Energy released its draft strategic plan for a new program called the Offshore Wind Innovation and Demonstration (OSWIND) Initiative. OSWIND is designed to encourage the development of 54 gigawatts (GW) of offshore wind energy capacity in the United States by 2030, with mid-term goals of 10 GW of installed offshore wind energy capacity by 2020. The program also has a goal to bring the cost of energy down to 13 cents per kilowatt hour of electricity generated from offshore wind farms by 2020, and a final goal of 7 to 9 cents per kilowatt hour by 2030. The preliminary program document covers FY2011-2015. OSWIND may be able to provide the long-term market signals necessary to develop a significant offshore wind industry in the U.S., particularly in the Southeast.

Founded in 1985, the Southern Alliance for Clean Energy (SACE) is a regional organization focused on developing clean energy solutions throughout the Southeast. SACE is staffed with more than 30 dedicated professionals equipped with a diverse set of skills and expertise to tackle our energy challenges, harness economic opportunities and address environmental consequences. SACE would like to commend the Department of Energy's leadership in promoting the development of our nation's vast offshore wind energy resources and we are grateful for the opportunity to offer comments on OSWIND.

The Southeastern portion of the United States has an essential role to play in developing our country's offshore wind industry. According to National Renewable Energy Laboratory estimates, more than 60 percent of the nation's shallow water offshore wind resource, nearly 680 gigawatts worth of total potential capacity, is located off southern states' coasts. Not only does the region have great natural resources and an industrial base that can be harnessed for clean energy development, it has a talented set of human resources dedicated to improving the surrounding communities. With these valuable assets, the OSWIND program will benefit tremendously with a focus on the Southeast.

In order to not miss a strategic opportunity and to aid in the development of the offshore wind industry in the Southeast, SACE recommends that the Market Barrier Removal focus of OSWIND be given priority access to financial and human resources. While the region-specific Technology Development focus and Advanced Demonstration Projects focus of the program are important in advancing the offshore wind industry in the United States, these two focal points do not address potentially the most important element to advancing the industry: the human element. Without a supportive regulatory regime, favorable public perception from stakeholders or advanced workforce and infrastructure, the goals of OSWIND cannot be achieved. Investors in the wind industry require long-term regulatory stability and a supportive infrastructure as has long been provided for other energy industries. Fortunately, OSWIND's Market Barrier Removal focus addresses these and other issues vital to the development of the offshore wind industry and it must be made the priority of the program.

Market Perception and Benefits (2.1.1)

The OSWIND research area concerning Market Perception and Benefits (2.1.1) is necessary in order to better understand our energy options with an "apples to apples" comparison of generating technologies. Such an analysis will aid utilities and energy project developers to more fully and accurately consider the externalized costs of fossil fuel generation. In the Southeast, dozens of multi-billion dollar, high-risk projects are slated to be constructed and operational in the next few years. SACE has worked ardently to account for the externalized costs and risks of these proposed fossil fuel and nuclear power plants and with OSWIND's research into this subject, offshore wind energy may prove to be more economically viable than high risk energy development.

Furthermore, the results of OSWIND's findings must be easily accessible and widely distributed under this research area. As a stakeholder, SACE cannot stress enough the importance of clear, consistent communication with all parties that have an interest in the offshore wind energy industry. SACE has worked with many hundreds of stakeholder groups to promote clean energy options throughout the Southeast including non-profit organizations, local, state and federal agencies and elected officials, utilities, academia, communities of faith, state wind working groups, renewable energy industries, tourist and fishing industry representatives and coastal communities. SACE recommends undertaking thorough public opinion polling, local community leader and business outreach, education of elected officials, well coordinated dissemination of materials, and other activities to directly engage stakeholders.

One activity that has been a proven asset to stakeholder participation and education conducted by SACE with the wind working groups of Georgia, North Carolina Tennessee and Kentucky and a less formal group in South Carolina. Wind working groups will need necessary funds to expand their work in the region and should also be established in states that currently lack these activities, including Florida. Existing and future wind working groups in the Southeast ought to create committees to investigate and promote offshore wind energy development, including important infrastructure needs such as vessels and ports.

Another model that may be useful is a train-the-trainer approach that provides regional training to a focused group of outreach experts in priority states to enable these individuals to reach key audiences in their areas. This model has worked well for the Regional Wind Energy Institute for the Mid-Atlantic and Southeastern states. Similarly, this type of regional approach can be expanded to effectively integrate the work of the

state wind working groups in order to share research, expertise, utility experiences, and public educational opportunities. SACE looks forward to working with OSWIND and regional stakeholders to bring the offshore wind industry fully to the Southeast.

Regulatory Processes (2.1.2)
The OSWIND research area concerning Regulatory Processes (2.1.2) will be vital to recommend regulatory fixes, but also assist in developing pre-approved siting criteria and areas for offshore wind farms. While this research area could potentially reduce the estimated 7-10 year, untested regulatory process significantly, SACE stresses the importance of smart siting practices and does not endorse regulatory loopholes or rubberstamps like what led to the Deepwater Horizon disaster. With this in mind, SACE recommends investigating the European models for pre-approved siting criteria. In addition, SACE recommends setting a targeted goal for the regulatory process to be as or more expedient than European permitting timelines. At the very least, the targeted goal for the regulatory process should be more expedient than U.S. timelines for high risk energy development, including offshore oil drilling, due to the significantly lower environmental impacts associated with wind energy.

Environmental Risks (2.1.3)
The OSWIND research area concerning Environmental Risks (2.1.3) will address the real need for gathering data on the marine environment. These data are necessary in order to properly mitigate disturbances caused by the deployment of offshore wind turbines. SACE recommends OSWIND investigate not only the micro-scale impacts of offshore wind farm development, but also investigate the macro-scale impacts of the program's goals. While the development of one offshore wind farm may not have significant implications to the oceans as a whole, developing the amount of offshore area necessary to achieve OSWIND's goals may present different research needs. Also, SACE recommends that OSWIND use these data to study the environmental risks of not achieving its goals – essentially a "business as usual" scenario that shows the environmental effects from limited or no significant offshore wind energy development.

Domestic Manufacturing and Supply Chain (2.2.1)
The OSWIND research area concerning Domestic Manufacturing and Supply Chain (2.2.1) is positioned to aid significant job growth, reduce supply-chain bottlenecks and reduce project costs and risks. The Southeast is taking the lead in manufacturing offshore wind turbine components like undersea cables, as well as developing purpose-built turbine installation vessels for the European market. An announcement was recently made that an offshore wind turbine blade manufacturing plant would soon open in our region as well. Due to the Southeast's talented workforce, maritime expertise as well as favorable economic opportunities, SACE recommends that OSWIND begin its infrastructure assessment in the region to expedite the cost-savings benefits of a domestic supply chain. SACE also recommends that OSWIND include a turbine installation vessel manufacturing development strategy within this research area, as current regulation may require domestic-built installation vessels.

Ports, Vessels and Operations (2.2.3)
The OSWIND research concerning Ports, Vessels and Operations (2.2.3) highlights the logistical needs of offshore wind turbine installation and operation. This area has vital importance to the future of the U.S. offshore wind industry, as well as the U.S. offshore oil and natural gas job force.

The Southeast has much of the nation's offshore oil and natural gas expertise as well as maritime resources and bears much of the immediate benefits and risks of such activities. As most of the easily accessible oil resources of the Gulf of Mexico become extracted, the Gulf States have a vested interest in encouraging the pursuit of financially, technologically and environmentally risky oil resources – particularly in deeper waters. The offshore wind industry represents a new opportunity for job creation and revenue generation for the Gulf States with fewer risks and potentially greater benefits for the region than extreme drilling practices. SACE recommends this area of research examine the needs of the Gulf States to entice the offshore wind industry to the region with the explicit purpose to transition the region's oil and natural gas industry into the wind industry.

The European experience has shown that in times of high demand for turbine installation, operation and maintenance, offshore oil and gas jack-up rigs and personnel can fulfill some roles; however, when the oil and gas industry also has high demand for similar vessels, platforms and personnel, those resources are less available to the offshore wind industry. SACE recommends OSWIND investigate the possibility of this same scenario occurring in the U.S. and its implications on the offshore wind, oil and natural gas industries.

There is real concern regarding how the need for offshore wind turbine installation vessels interrelates with the Jones Act. Few specialized turbine installation vessels exist in the world and it remains to be seen if those ships would be allowed to operate cost effectively in U.S. waters due to the requirements of the Jones Act. However, the Jones Act does allow for special exemptions for instances of national security of which climate change may qualify. Additionally, the Jones Act could serve a better long-term goal of creating a domestic manufacturing base for turbine installation vessels. SACE recommends that OSWIND determine the best possible way to address this issue in order to create a clear path for the use of these necessary vessels.

Resource Planning and Characterization (2.3.1)

The Resource Planning and Characterization OSWIND research area (2.3.1) aims to answer the basic and fundamental questions that offshore wind energy developers, stakeholders and politicians ask: namely, how much wind energy potential exists and where are the best resources. Properly characterizing the offshore wind resource is a key activity to highlight each state's role in offshore wind development, and methodology of conducting these analyses should be updated accordingly. Specifically, SACE recommends OSWIND prioritize finishing mapping projects for states without currently approved maps such as Florida, Alabama and Mississippi.

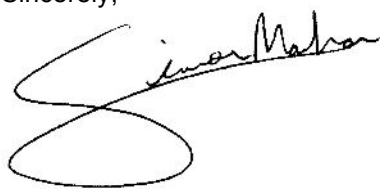
Also, when estimating offshore wind energy carrying capacity potential, instead of using a typical land-based factor of 5 megawatts per kilometer squared, OSWIND should utilize actual installed carrying capacity ratios as established in European offshore wind farms. Many offshore wind farms already have higher carrying capacities than 5 MW/km^2. For example, in the U.S., the proposed Cape Wind project has a carrying capacity of nearly 7 MW/km^2. Meanwhile, actual offshore wind projects that have been installed in Europe have carrying capacities from 8 MW/km^2 to 15 MW/km^2. Using a higher carrying capacity will better evaluate the potential U.S. offshore wind resource by taking into consideration current offshore wind turbine technology advances over onshore turbine technologies.

Finally, until proper assessments of the marine environment on a state-by-state basis have been completed, it needs to be clearly communicated that potentially significant areas of ocean may remain inappropriate for development due to multi-use conflicts. For example, the University of North Carolina-Chapel Hill as well as Georgia Institute of Technology have completed studies on the known user-conflicts off the respective coasts. Some activities and areas that may be incompatible with offshore wind energy development include highly sensitive habitat, military training sites and potentially some recreational use.

Conclusion

The Southern Alliance for Clean Energy would like to commend the United States' Department of Energy for taking the lead in creating an offshore wind industry. The Offshore Wind Innovation and Demonstration Initiative represents a significant step in the right direction towards reducing fossil fuel and high cost nuclear consumption, creating domestic jobs and protecting national security interests. To best achieve these goals, the Market Barrier Removal portion of the program should be prioritized. Conducting stakeholder outreach, encouraging efficient but smart regulatory proposals, fully accounting for the benefits of offshore wind energy over traditional forms of electricity generation, promoting domestic turbine and vessel manufacturing and conducting resource planning and characterization are imperative to building an offshore wind industry in the United States. By prioritizing financial and human resources to the research areas identified above, the Southeast can aid in establishing the United States as the global leader in this new clean energy industry.

Sincerely,



Simon Mahan
Renewable Energy Manager
Southern Alliance for Clean Energy