

## **Education and Outreach**

### ***Planning Grant: Climate Modeling and Outreach Activities***

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#### **Description:**

The objective of the planning grant is to develop at least one external funding proposal that focuses on areas of climate modeling and/or climate outreach that support the activities of the IESES. The focus of our activities has centered on evaluating the potential offshore wind resource in the northeastern Gulf of Mexico and elsewhere in Florida's waters. Preliminary research has been completed using observations from instrumented Air Force towers and buoys in the waters around Florida. The existence of wind power capacity has been identified at the assessed locations. Due to the sparseness of in-situ wind data in the region, a numerical modeling approach will need to be pursued to develop a wind climatology with sufficient spatial and temporal scales to further define the offshore wind power capacity.

A vast portion of the work conducted focused on outreach and education. When we began our project, the idea of offshore wind power in Florida was not even on the radar of the Florida Legislature or the renewable energy sector at large. We worked to raise the visibility of offshore wind as an energy resource for Florida by attending meetings, connecting with the wind power industry in Florida, and briefing two members of the Florida Legislature and presenting to the Florida Energy and Climate Commission. As a result of these connections, we submitted a preliminary proposal to Siemens Wind Power and have developed a network of colleagues both within FSU and the private sector that are interested in further developing Florida's offshore wind resource.

**Budget:** \$15,000

**Universities:** FSU

**External Collaborators:** Mark Powell (National Oceanographic and Atmospheric Administration)

## **Executive Summary**

The preliminary research confirms the existence of an offshore wind resource; however, the winds are not as strong as they are in regions where offshore development is underway on the U. S. East Coast. There continues to be a need for a more detailed wind resource assessment and the work of this IESES project has stimulated interest at the National Renewable Energy Laboratory to complete the coastal wind resource maps. Once a good resource assessment is complete, more effort will be needed in the areas of marine spatial planning, economics, and engineering to build a case for which regions have economically viable wind. There will be a need for technological improvements in turbine technology to produce at lower wind speeds.

In terms of outreach, the project has worked to change the attitudes within the renewable energy community and the state legislature that wind needs to be considered for Florida.

This project has been completed.