

Texas' Offshore Wind Farm Innovation Team to be led by Texas A&M Energy Institute

The Texas A&M Energy Institute's Wind Energy Center will lead the Texas' Offshore Wind Farm Innovation team as part of the Gulf Offshore Wind (GoWind) Project, which will be the most innovative wind farm built to date and will generate power at peak demand and a high capacity factor.

The Wind Energy Center is housed in the Texas A&M Engineering Experiment Station (TEES), a member of The Texas A&M University System.

As part of the project, Baryonyx Corporation of Austin has been invited to negotiate a contract with the U.S. Department of Energy for an award under the Wind and Water Energy Program. Subject to the outcome of environmental and feasibility assessments, a future phase of the project would see a three-turbine, 18MW wind farm installed offshore Texas.

"This project represents an exceptional partnership between Texas universities and industry," said John Pappas, associate director of the Energy Institute and director of the Wind Energy Center. "The award recognizes Texas' continued leadership in wind and offshore energy production as well as its ability to innovate and bring real-world solutions to the market.

"The combined know-how and assets of Texas wind and offshore industries and its research universities, along with strong community support, uniquely positions this project for success."

Baryonyx brings first-hand experience in offshore wind development to GoWind. Its management team conceived, undertook environmental impact assessment, obtained permits and developed the industry-leading Ormonde project located off the west coast of the United Kingdom. Ormonde, an exemplar of the next generation of offshore wind farm development, is comprised of large capacity 5 MW turbines mounted on jacket structures. Baryonyx was also partnered then with Offshore Design Engineering Ltd, who ensured that Ormonde was delivered safely, on-time and on-budget.

Texas A&M's role in the project will include performing applied research in blade structure and design for hurricane conditions, developing advanced wind farm control algorithms, support resource, environmental and geotechnical survey and analyses, and developing comparative economic models.

The university team led by the Wind Energy Center includes Texas A&M's Harold Vance Department of Petroleum Engineering, Texas A&M's Department of Electrical and Computer Engineering, Texas A&M's Department of Aerospace Engineering as well as The University of Texas at Austin's Center for Electromechanics and Civil Engineering Department, Texas Tech University's National Wind Resource Center, Texas A&M University Corpus Christi's Conrad Blucher Institute and The University of Texas at Brownsville's School of Business and Department of Environmental Sciences.

The GoWind Project's wind farm will bring more power to an underserved area without the need for new long-distance transmission. The technologies developed and demonstrated will increase the output capability of the wind farm, facilitate grid integration, and decrease operations and maintenance costs to help allow continued growth of Texas' wind power industry in a time of uncertainty over the production tax credit.

Subsequent to the agreement of a contract with the DoE, the next key step for the GoWind project will be to initiate the environmental assessment studies under the supervision of the US Army Corps of Engineers. "The public consultation process for the project was recently completed by the USACE. Constructive feedback from many interested organizations and individuals was received and this information will be used to shape the assessment studies needed before a decision to install the GoWind demonstration project can be made" Baryonyx CEO Ian Hatton said.

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