# Maryland Offshore Wind Energy Research Challenge Grant (MOWER)

## FREQUENTLY ASKED QUESTIONS

**1. What are the best research topics to pursue? What is the State looking for?**

*ANSWER: There are a diverse array of research areas and thematic projects suitable for this grant program. The optimal outcomes for the Maryland Offshore Wind Energy Research Challenge include:*

- Application of Maryland public higher education institutions specific area(s) of expertise within the emerging offshore wind industry in our State to become the 'gravitating' expert in the field.
- Parlaying the research supported by the seed monies from this grant to attract further funding for extending the research interest.
- Elevating the academic reputation of the awardees and their colleges and universities as leaders in the chosen sub-fields of offshore wind energy research and applied research.
- Integrating the research topic with Maryland's new policy framework to advance a 200+MW wind farm off Ocean City with the potential to help the developers, as well as to advance, Maryland's higher education institutions.

*Fundable topics, based on the U.S Department of Energy (DOE) framework, as well as, additional promising topics are highlighted below. Refer to Appendix 1 of the Request for Application for a summary of DOE grant awardees and brief project abstracts of projects using the DOE frameworks/topics listed here.*

*The DOE research framework for considering projects or research topics includes seven categories. For a general overview of federally funded offshore wind energy projects see http://apps1.eere.energy.gov/news/news_detail.cfm/news_id=17722.*

*Actual award recipients and funded project summaries are located at: http://energy.gov/articles/41-offshore-wind-power-rd-projects-receive-energy-department-funding-0.*

*Fundable topics using the DOE framework include:*

a. Modeling and Analysis Design Tools to Assess Offshore Wind Turbine Technologies including Market Analysis and Barrier Removal

b. Innovative Offshore Wind Plant System Design Studies including Environmental Risk Reduction
c. Manufacturing and Supply Chain Development
d. Transmission Planning and Interconnection Studies
e. Optimized Infrastructure and Operations
f. Resource Characterization and Design Conditions
g. Impact on Electronic Equipment for Marine Environment

*Other fundable promising topics include:*

a. Developing secondary and tertiary components suppliers for OEMs
b. Optimizing Deployment Facilities and Processes

**2. Can you provide some examples of potential MOWER projects to illustrate the types of research that is of interest?**

*<u>ANSWER</u>: Refer to the two examples below that are presented for illustrative purposes only:*

**<u>Example One</u>**

Professor Quad and team at the MD University of Excellence, has a strong research portfolio in metals and tensile strength in different applications. In response to the MOWER Request for Application, the professor and team, form an alliance with an international institution that is looking at replacing traditional offshore wind foundations with "tied metal lines." The international institution has a grant funded project to evaluate a cost model for the substitution but does not have the technical engineering to experiment and bring practical validation to the new way of securing the turbines to the ocean floor. The two institutions agree to a Transatlantic Understanding of Cooperation where the international institution will share results of the its work on the cost model, with Professor Quad and team, as the Marylanders conduct research and testing of scaled models. Professor Quad at the MD University of Excellence applies for the MOWER grant to provide seed funds to start development testing, based on her expertise in tensile materials, working within the cost model developed by the international university. The proposed results could lead to securing additional funding for an 'increased scale' test at the time and location of deployment within Maryland's offshore wind farm.

**<u>Example Two</u>**

Professor Dollar at Maryland University by the Sea is developing a portfolio of research around planning for and understanding the impact of large scale industrial infrastructure for emerging technologies. The Professor decides to pursue a MOWER grant to support the investigation of factors and considerations on how offshore wind farms and wind energy

development in the mid-Atlantic region of the United States is likely to impact local infrastructure. While such development would likely involve maritime, road and transmission issues, Professor Dollar decides to narrow the focus to maritime and ground transportation issues. The professor proposes making comparisons with other nations' actions around related infrastructure development and applies the findings to the mid-Atlantic scenario, focusing on Maryland, in particular. The project will engage three other higher education institutions, two from Maryland and one from Virginia, each with different areas of expertise, to include investment finance knowledge, legal expertise in infrastructure investment partnerships, and community development that complement the lead Principle Investigator's back ground in maritime and ground transportation infrastructure.

3. **Our proposed research includes researchers and students from across several disciplines. The components of our proposal are all related, but there are a few separate areas of study that are addressed. Is it important to have a tightly focused proposal, or is our more loosely coupled but related model reasonable?**

   *ANSWER: A multi-discipline approach, where warranted, seems advantageous. For example, to have something new investigated with an economic assessment to ensure it has commercial viability makes sense. To have 'other disciplines' around 'just in case' an unknown might be interesting to explore or validate, is probably less appealing than a proposal that demonstrates focus or close interdependency.*

4. **Is there any way to tie together or to highlight synergies for proposals that may be competing at this stage of the process? In other words, if we know of other competing proposals, can we identify those in our proposal and discuss how they may provide synergies?**

   *ANSWER: This is your choice. However, if institution 'A' has a proposal to measure say wind speed at x feet high and 'B' at 2x feet high and then C at 4x feet high, with 'C' stating it can provide data processing for 4X feet high which could be extended for minimal cost to other inputs such as x or 2x feet high...is not the preferred award. A single proposal for multiple heights and data processing would be more desirable. If there is one institution that has the data processing capabilities, the single proposal should come as a consortium based on merit of expertise of each institution rather than simply as distributing the work among the group once an award has been made.*

5. **How should resources that are provided by collaborators at no cost to the project be included in the budget? It may be difficult to provide a cash value in some instances.**

   *ANSWER: If it a cash or can be computed as a cash in kind or other support - you can report on this in the budget narrative (e.g. add a section titled in kind/match contribution. Since matching funds are not required you do not have to track them but it can't hurt to indicate that you have them.*

   *If it is a collaborative item, (e.g. co-authorship, etc.) it's suggested to insert that into the narrative where it flows best within your particular proposal. The resources or technical section might be appropriate.*

6. **Can support letters from collaborators be included outside of the 15 page limit, i.e. in an Appendix or supporting materials section?**

   *ANSWER: Place these in the Appendix. Page limit applies to the narrative and excludes budget/appendices.*

7. **Will there be a separate RFP for the Met Tower/MetOcean data analysis after deployment?**

   *ANSWER: This is too premature to provide a response to this question.*