

## STATEMENT OF CONSIDERATIONS

REQUEST FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN PATENT RIGHTS BY DUKE UNIVERSITY (“DUKE”) (ON BEHALF OF AARHUS UNIVERSITY (“AARHUS”)) UNDER WIND ENERGY TECHNOLOGIES OFFICE’S AWARD NO. DE-EE0010287; W(A)2023-009

Prime recipient DUKE, on behalf of subrecipient AARHUS, has requested a waiver of domestic and foreign patent rights for all inventions that may be or have been conceived or first actually reduced to practice by AARHUS’ employees in the course of or under the above referenced 2022 Wind Energy Technologies Office (“WETO”) Award No. DE-EE0010287 (formerly DE-EE0009798) entitled “Wildlife and Offshore Wind (WOW): A Systems Approach to Research and Risk Management for Offshore Wind Development from Maine to North Carolina” (“subject inventions”). DUKE anticipates entering into a subcontract with AARHUS once this patent waiver is granted.

As set forth in DUKE’s petition for this waiver, the objectives of the WOW project being funded by the award are to advance the state of offshore wind development along the U.S. east coast that currently limit offshore wind construction, installation and operation activities. DUKE and a team of subrecipients (including AARHUS) will develop a structured framework for comprehensive evaluation of potential effects of offshore wind energy on wildlife and habitats across a range of time and location scales. The WOW team will develop risk and research frameworks, and then execute research programs targeted at data needs for specific regions, species, and wind energy projects within these frameworks. Proposed areas to perform this research include the Massachusetts/Rhode Island and New York/New Jersey regions. Prior to conducting primary research, the WOW team will integrate input from developers, regional planning bodies, state and federal agencies. A goal of the WOW project is to enable federal/state agencies and offshore wind energy developers to integrate local-scale information with existing regional and ecosystem-level scientific data to reduce uncertainty in impact assessments at wildlife individual and population levels.

For its part, AARHUS will advance the state of offshore wind development along the U.S. east coast by studying the effects of anthropogenic (human-related) activities on marine wildlife and environmental status and by addressing urgent environmental and protected species data gaps that directly constrain construction activities. More particularly, AARHUS’ project will include field validation of Loggerhead Instruments’ Medusa (brand) GPS-linked drifting buoys, a prototype smart acoustic datalogger with integrated real-time acoustic detection and telemetry capabilities that are currently capable of real-time right whale detection and telemetry of detections and noise statistics. AARHUS will collaborate with the Woods Hole Oceanographic Institution on the Medusa buoy development and field validation. In addition, AARHUS will lead efforts to validate new technologies for acoustic monitoring of baleen whales and mitigating impacts of pile driving on North Atlantic right whales.

The period of performance for the project is five (5) years. The total amount of the award is \$13,349,687, with DOE contributing \$7,500,000. The amount of the subcontract to AARHUS is \$194,357, of which AARHUS' cost share is \$19,252 (or approximately 10% of the subcontract). In addition to the cost share, Aarhus University is providing a substantial investment in the form of a significant reduction in overhead of 10% for this project as compared to a standard reduction of 44% for national science grants in Denmark. The WETO Director has approved the amount of AARHUS' cost share for this waiver request.

DUKE and AARHUS have significant experience in the fields of offshore wind development and wildlife impact analysis. Dr. Frants Jensen is the lead researcher at AARHUS and is part of Aarhus University's Department of Ecoscience and its Center for Green Transition and Marine Ecology that specializes in sustainable development of marine renewable energies. Dr. Jensen has more than 15 years of experience and numerous publications working on bioacoustics and sensory ecology of marine mammals, including work on how noise affects marine mammals and how animals can compensate for noise effects. Dr. Jensen also co-developed algorithms for Loggerhead Instruments' Medusa buoy product. In view of the foregoing, it is reasonable to conclude that AARHUS can continue to successfully develop and utilize the technology resulting from the award.

DUKE does not anticipate that the granting of this waiver would place DUKE or AARHUS in a preferred or dominant position in the wildlife impact analysis field. Commercial intellectual property (IP) may be generated by AARHUS under this subcontract. However, AARHUS would like to retain rights to its developed IP so it can continue to inform public, commercial and government entities with a goal to reduce harm from human activities to sea mammals, birds and other forms of marine life.

This waiver shall be subject to march-in rights and preference for U.S. industry provisions, as well as a U.S. Government license, comparable to those set out in 35 U.S.C. 202-204. Further, the waiver shall be subject to the attached U.S. Competitiveness provision paragraph (t). In brief, products embodying a waived subject invention or produced through the use of a waived subject invention will be manufactured substantially in the United States unless DUKE and AARHUS can show to the satisfaction of DOE that it is not commercially feasible to do so.

Considering the foregoing, it is believed that granting a waiver to possible subject inventions will provide DUKE and AARHUS with the necessary incentive to commercialize the results of the award in a manner that will make products that embody the subject inventions available to the public in the shortest time. Therefore, upon evaluation of the waiver petition, and in view of the objectives and considerations set forth in 10 CFR 784, all of which have been considered, it is recommended that the requested waiver be granted.



Jonathan L. Pettit  
Patent Attorney  
Golden Field Office

Date: \_\_\_\_\_

Based upon the foregoing Statement of Considerations and representations in the attached waiver petition, it is determined that the interests of the United States and the general public will best be served by a waiver of patent rights of the scope determined above, and therefore the waiver is granted. This waiver shall not apply to any modification or extension of the award, where through such modification or extension, the purpose, scope, or cost of the award has been substantially altered.

CONCURRENCE:



Eric Lantz  
Director  
Wind Energies Technologies Office

Date: \_\_\_\_\_

APPROVAL:



Brian Lally  
Assistant General Counsel for Technology  
Transfer and Intellectual Property

Date: \_\_\_\_\_

**(t) U.S. COMPETITIVENESS**

The Contractor agrees that any products embodying any waived invention or produced through the use of any waived invention will be manufactured substantially in the United States, unless the Contractor can show to the satisfaction of DOE that it is not commercially feasible to do so. In the event DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., recoupment of the Government's investment, etc. The Contractor further agrees to make the above condition binding on any assignee or licensee or any entity otherwise acquiring rights to any waived invention, including subsequent assignees or licensees. Should the Contractor or other such entity receiving rights in any waived invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license, or other transfer of rights in any waived invention is suspended until approved in writing by DOE.