STATEMENT OF CONSIDERATIONS

REQUEST FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN PATENT RIGHTS BY DUKE UNIVERSITY ("DUKE") (ON BEHALF OF THE UNIVERSITY COURT OF THE UNIVERSITY OF ST. ANDREWS ("ST. ANDREWS")) UNDER WIND ENERGY TECHNOLOGIES OFFICE AWARD NO. DE-EE0009798; W(A)2023-001

Prime recipient DUKE, on behalf of subrecipient ST. ANDREWS, 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 ST. ANDREWS' employees in the course of or under the above referenced 2022 Wind Energy Technologies Office ("WETO") Award No. 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 ST. ANDREWS 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 ST. ANDREWS) 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. For its part, ST. ANDREWS will identify data needs, integrate existing data into frameworks, identify gaps in that data, and optimize data collection in order to advance offshore wind development. ST. ANDREWS will also advise the team on study plans and analyze power data to determine appropriate sample sizes for the environmental studies. 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 individual and population levels.

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 ST. ANDREWS is \$911,654, of which ST. ANDREWS' cost share is \$225,513 (or 24.7% of the subcontract).

DUKE and ST. ANDREWS have significant experience in the fields of offshore wind development and wildlife impact analysis. ST. ANDREWS' Centre for Research into Ecological and Environmental Modelling (CREEM) is a world leader in the development of statistical methods for wildlife population assessment, including estimation of population size and trends,

W(A)2023-001 p.1

and assessment of the impact of anthropogenic stress factors on wildlife populations. Lead Researcher Len Thomas, a former director of CREEM, has worked in the wildlife assessment field for over 25 years and has published over 100 related research papers. In view of the foregoing, it is reasonable to conclude that ST. ANDREWS 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 ST. ANDREWS in a preferred or dominant position in the wildlife impact analysis field. No commercial intellectual property (IP) is expected to be generated by ST. ANDREWS under this subcontract. However, ST. ANDREWS 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 their 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 Sates unless DUKE and ST. ANDREWS 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 ST. ANDREWS 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:



Jim Ahlgrimm Director (Acting) Wind Energies Technologies Office APPROVAL:

Brian Lally Assistant General Counsel for Technology Transfer and Intellectual Property

Date:_____

Date:_____

W(A)2023-001 p.3

(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.