RE: Additional Investments in Wind/Wildlife Research Needed to Support Carbon Emission Reductions

Secretary Ernest Moniz The U.S. Department of Energy Washington, D.C.

Dear Secretary Moniz:

We the undersigned write as partners in a growing collaborative of 22 wind energy companies and utilities operating in the United States, and 10 of the leading, national conservation and science-based NGOs. Our organizations participate in the American Wind Wildlife Institute (AWWI), a non-profit organization created in 2008 to generate greater understanding and mitigate the impacts of wind energy facilities on wildlife and their habitat. A primary goal of AWWI is the facilitation and timely deployment of responsibly-sited wind energy. Working together through AWWI, we seek to address wind-wildlife issues in a scientifically rigorous and defensible manner that will support robust growth of sustainable, domestically produced, carbon-free wind energy across the United States, while minimizing impacts on sensitive wildlife and important habitat.

We applaud your efforts, Mr. Secretary, and those of the President for setting forth an ambitious clean energy agenda and climate change mitigation strategy, including the farsighted road map laid out in the U.S. Department of Energy's forthcoming Wind Vision. It is our understanding that the report describes the potential for wind power to contribute to the President's goals of doubling renewables by 2020 and to make substantial contributions to the Administration's CO₂ reduction targets for 2030 and 2050.

Our organizations are committed to the responsible development of wind energy in order to achieve meaningful carbon emissions reductions. However, the DOE Wind Vision report finds that deployment of wind energy at the scale desired will require solutions to three areas of concern: (1) reconciling conflicts associated with permitting and siting (including wind-wildlife issues), (2) access to and availability of transmission, and (3) policy drivers.

Further, one of the major challenges to sourcing 20% or more of U.S. electricity from wind by 2030 is the lack of detailed information on the risk to the populations of some wildlife species with respect to broad scale wind energy development and operations. Without this additional information to guide decision makers, particularly applied, scientific research and technological innovation, there is significant risk that the U.S. will not meet demand for wind energy generation at the appropriate scale or within the desired timeline, thereby impacting our ability to achieve the emission reduction targets set forth in the forthcoming Wind Vision report and CAA Section 111(d).

To date, the wind industry, working closely with AWWI, government agencies, and NGOs, has made significant investments to address wind-wildlife related issues. Estimates suggest that costs associated with wind-wildlife studies and research range from \$325,000 to \$2.6 million per 100 megawatts. Collectively the industry has invested upward of \$290 million to \$620 million in wind-wildlife related siting and permitting studies over the last 10 years (with investments increasing as companies strive to avoid and reduce impacts consistent with the U.S. Fish and Wildlife Service's Wind Energy Guidelines).¹ AWWI leverages these investments as well as direct funding through collaborative projects that generate the scientific data, tools, and solutions to improve deployment and operations and avoid/reduce wildlife impacts. However, these investments alone will not solve the challenges facing wind energy development and operations.

Given DOE's interest in public/private cost-sharing and the significant financial contributions of the wind industry to date and ongoing, we ask that DOE commit additional targeted funds to applied research on wind-wildlife interactions and help advance technological solutions to mitigate such interactions. This investment is necessary for our nation to meet important carbon emission reduction targets and the goal of sourcing 20% or more of U.S. electricity from wind energy by 2030. Specifically, we recommend:

- An increased investment in scientific research on wind energy impacts on specific species of concern, on the order of \$10-20 million/year, beginning with FY 2016.
 - Comprehensive applied research is needed to generate credible data around the interactions between wind energy and species of concern. These species include eagles, bats, lesser prairie-chicken, and greater sage-grouse.²

¹ Information provided by the American Wind Energy Association.

² For a detailed analysis of applied research priorities and estimated funding need, please contact the American Wind Wildlife Institute at <u>aarnold@awwi.org</u>.

- An increased investment in technological innovation on the order of \$10-20 million/year, beginning with FY 2016.
 - Comprehensive operational and technological testing and innovation to expand detection and deterrence of species around wind facilities.²

Through both AWWI and individual initiatives, we are committed to solving these issues and making a significant contribution to achieving the DOE Wind Vision and emission reduction targets. Your support for additional research funding is essential to this effort.

Sincerely,

Jamie Rappaport Clark President and CEO Defenders of Wildlife

Gabriel Alonso CEO EDP Renewables

Tom Kiernan CEO American Wind Energy Association

Michael Skelly President Clean Line Energy Partners

Greg Wolf President Duke Energy Renewables

Tristan Grimbert President & CEO EDF Renewable Energy

Eric Holst Senior Director, Working Lands Environmental Defense Fund Paul Gaynor CEO **First Wind**

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Jamie Williams President **The Wilderness Society**

Rob Freeman CEO TradeWind Energy, Inc.

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Chris Brown President Vestas-American Wind Technology, Inc.