Statement of the Honorable Alexander Karsner

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Committee on Resources

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Good morning Chairwoman Drake and distinguished Members of the Subcommittee. I am pleased today to offer the Department of Energy's perspective on ocean energy technology and the opportunities for the development of this potential resource in state and federal waters. I will also discuss Office of Energy Efficiency and Renewable Energy efforts to support our federal partners in developing a regulatory framework for offshore energy technologies.

To begin, I want to share the President's vision on energy issues and elaborate on the Administration's efforts to reduce our dependence on foreign sources of energy. The Advanced Energy Initiative that President Bush unveiled during this year's State of the Union Address identifies clean energy technologies that have the potential to help us change the way we power our homes, offices, and vehicles. Developing and accelerating market penetration of clean energy technologies, developing strong state and federal policies to cultivate new sources of domestic clean energy, and promoting energy efficiency are critical for our energy security, economic security, and our environmental well-being.

One way to promote domestic clean energy development is to examine the potential for electrical power extraction from renewable fluid technologies such as waves, tides, and currents. Wave, current, and tidal forms of ocean energy appear to be abundant and promising results from demonstration projects and reported technology progress could make this technology a good candidate to help the US diversify its energy mix.

During its 2000 session, Congress tasked the U.S. Commission on Ocean Policy to provide recommendations for a "coordinated and comprehensive national ocean policy." The resulting Ocean Action Plan, which the Department of Energy helped develop, established a Joint Subcommittee to prepare an ocean research priorities plan to ensure that energy production from the ocean is properly considered among the competing demands for ocean resources.

Section 251 of the Energy Policy Act of 2005 (EPACT) directed the Secretary of Energy to "identify and evaluate strategies or projects with the greatest potential for reducing the country's dependence on imported fossil fuels used for the generation of electricity," including strategies and projects for wave energy and energy from ocean thermal resources. Additionally, Section 931 of EPACT authorizes the Secretary of Energy to conduct a research, development, demonstration, and commercial application program for ocean energy, including wave energy. The Department does not currently have a program in these areas. However, through the Small Business Innovation Research Program, the Department has supported projects to define the resource potential, analyze emerging technologies, and support R&D focused on the development of both ocean wave and ocean current devices. Other activities include collaborating with the Electric Power Research Institute and the International Energy Agency to monitor domestic and worldwide progress to develop these technologies.

The Department has been actively engaging other agencies, primarily the Department of Interior's Minerals Management Service, as they continue to develop an effective and efficient

regulatory framework for advanced offshore energy technologies, as called for in Section 388 of EPACT. This Section calls for the Department of Interior, in coordination with other federal entities, to grant leases for and to set policy regarding the use of the outer continental shelf for ocean based (non-oil or gas energy-related) technologies, including wind, wave, tidal, and current. We have provided significant technical support for public hearings on proposed regulations, commented on the initial Programmatic Environmental Impact Assessment, and are helping to develop international standards for ocean deployed technologies.

The Department's Federal Energy Management Program has assigned experts at our National Renewable Energy Laboratory and partnered with the US Navy and US Army to develop a contractor owned and operated Ocean Thermal Energy Conversion (OTEC) facility to be located in the Republic of Marshall Islands (RMI) on or near Kwajalein Island, RMI, US Army Kwajalein Atoll / Reagan Test Site (USAKA/RTS). The OTEC facility would be a source of electric power and/or chilled water and/or potable water at the USAKA/RTS facility to reduce energy costs and stabilize the operating budget while reducing the risk of environmental impact associated with diesel fuel in the energy production process. The project also supports a goal of Executive Order 13123 to reduce petroleum use in stationary applications.

We are also partnering with other Federal agencies on issues related to siting advanced energy technologies, both on the land and water, and the potential impacts on civilian and military mission areas. We have taken a leadership role on the issue of wind systems interaction with radar systems and have supported the efforts of the Defense Department and the Federal Aviation Administration, among others, to explore the policies, practices, and technology options

that could mitigate potential negative impacts of deploying this technology. We have and are continuing to work with land-use agencies, such as the Fish and Wildlife Service, the Bureau of Land Management, and the Forest Service as they continue to define best practices for development on federal lands. This effort has a direct parallel to large permitting hurdles that will and are being faced by ocean energy technologies.

Finally, we are working with our state partners to promote the development of effective state policies related to wind energy development that could directly or indirectly address barriers to commercial development of ocean energy projects. Through our Wind Powering America program, we support the Virginia Wind Energy Collaborative and its partners and stakeholders in government, industry, the utility sector, and other energy consumers. This effort, as well as similar efforts in Maryland, North Carolina, Georgia and the Great Lakes, has led to new state wind resource assessments, development of state wind working groups to explore and address the benefits of and barriers to wind development, and development of effective tools and policies that will enable responsible use of our vast renewable resources.

Thank you. I would be pleased to respond to any questions subcommittee members may have.