

Testimony of

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Mr. Chairman and Members of the Committee:

INTRODUCTION

My name is J. Mark Robinson and I am the Director of the Office of Energy Projects at the Federal Energy Regulatory Commission (Commission). I appreciate the opportunity to appear before you to discuss the Commission's growing involvement with hydropower using new technologies. I use the term "new technologies" to mean mechanisms that produce hydropower from ocean currents, tides, and wave action, without the use of a dam. As a member of the Commission's staff, the views I express in this testimony are my own, and not those of the Commission or of any individual Commissioner.

The Commission regulates over 1,600 hydroelectric projects at over 2,500 dams pursuant to Part I of the Federal Power Act (FPA). Together, these projects represent 54 gigawatts of hydroelectric capacity, more than half of all the hydropower in the United States. Hydropower is an essential part of the Nation's energy mix and offers the benefits of an emission-free, renewable, domestic energy source with public and private capacity together totaling about nine percent of U.S. capacity. Today we are looking at development of a new source of hydropower that has the potential to add a substantial amount of power to the nation's generation capacity, perhaps one day doubling our total hydropower generation.

The Commission's existing procedures are well established and well suited to

address this expansion of conventional hydropower with new technologies, and we are prepared to learn from experience in this rapidly evolving area and to make whatever regulatory adjustments are appropriate in order to help realize the potential of this renewable energy resource.

Before I present the Commission's regulatory program for new technology projects in more detail, I want to make two specific points regarding how these projects may affect the Outer Continental Shelf (or OCS). First, we expect that the majority of new technology projects will be located in state waters, not on the OCS. Of the 21 preliminary permit applications for ocean projects pending at the Commission as of May 31, 2007, three propose boundaries straddling the state-OCS line and only one would be located entirely on the OCS. The other 17 applications are for sites within state waters. This distribution of proposals reflects the cumulative costs of development, which include the costs associated with purchasing and installing transmission cable needed to bring project power onshore, making it advantageous to locate projects nearer to the shore. Second, for those projects located wholly or partially on the OCS, the Commission will work closely with the Minerals Management Service of the U.S. Department of the Interior (MMS), which has the responsibility to issue leases for these projects. Currently, in the spirit of cooperation and good government, we are working on a Memorandum of Understanding with MMS to weave the MMS and FERC processes together and eliminate redundancy for the benefit of applicants, other stakeholders, and the two agencies.

In my testimony I will describe 1) the strengths of the Commission's existing

program and its compatibility with the new technologies, 2) the flexibility the Commission has exercised and alterations the Commission is making to its processes to address the concerns of stakeholders about specific aspects of that compatibility, and 3) the Commission's efforts to work with the MMS to establish an efficient program for new technology projects to be located outside state waters on the OCS.

OCEAN ENERGY ACTIVITY BEFORE THE COMMISSION

Applications for ocean-based hydropower projects can potentially go through three stages at the Commission. First, developers can apply for preliminary permits. Preliminary permits maintain priority of application for license for a site for up to three years while a developer researches site feasibility and makes financial arrangements. Second, developers can apply for a license to construct and operate a hydropower project. (A preliminary permit is not required prior to applying for a license.) By statute the Commission can issue a license for a term of up to 50 years. Third, if licensed, the developer must operate the project in compliance with the terms of the Commission's license order. Throughout the term of the license, the Commission monitors the project to assure compliance with the license.

Recently, the Commission has responded to a surge in applications for preliminary permits for the new technologies, including over 40 applications in 2006 alone. As of May 31, 2007, the Commission has issued 38 preliminary permits for new technology projects and requested further information regarding many of the others that are pending. None of the four issued wave permits fall on the OCS, nor of course do the 26 tidal

energy permits. All eight preliminary permits issued for ocean current energy projects are proposed for the OCS. Unlike wave and tidal efforts, this energy source has not yet reached the prototype phase.

The Commission received the first license application for a wave energy hydropower project from AquaEnergy, Inc., now Finavera Renewables, in November 2006 and issued its environmental assessment in May 2007. The Makah Bay Offshore Wave Energy Project is proposed for Makah Bay in Clallam County, Washington. The project would consist of four buoys, which together would generate up to 1 megawatt (MW).

In the tidal hydropower arena, Commission staff has been working with Verdant Power, LLC, a permit holder seeking to develop a license application for the Roosevelt Island Tidal Energy Hydropower Project. The project ultimately would consist of as many as 200 free-flowing turbine generator units (about 10 MW total), located below the water surface in the East River in Queens County, New York.

Similarly, Commission staff has been working with Reedsport OPT Wave Park LLC and other stakeholders as they prepare a license application for a proposed wave energy project in Douglas County, Oregon. The proposal is for up to 200 buoys generating up to 50 MW.

COMPATIBILITY OF THE COMMISSION'S EXISTING PROCESS WITH THE NEW TECHNOLOGIES

Projects using new technologies are compatible with the Commission's well-tested regulatory process that has been refined continuously since the original passage of the

Federal Water Power Act of 1920. Regulating the development of power generation from the nation's waters is a primary role of the Commission. We analyze developers' proposals for energy generation from navigable and Commerce Clause waters, along with interests expressed by other stakeholders. Ultimately, we seek to comprehensively balance the benefit of power generation with environmental protection and other values as directed by statute. After years of collaboration with other agencies and parties, we have achieved a high level of regulatory efficiency. We have improved our licensing process to include early engagement with the applicant and other stakeholders, earlier and more predictable study requirements, more certain timeframes, and overall reduced processing time.

In reviewing a license application for a project, the Commission integrates and weighs the concerns of the licensee, federal and state resource agencies, Native American tribes, and members of the public. We do so through an information-gathering process and technical analysis that enables a fully informed Commission decision while complying with the mandates of the Federal Power Act, the National Environmental Policy Act, the Endangered Species Act, and other applicable laws. The National Marine Fisheries Service (NMFS), within the National Oceanic and Atmospheric Administration of the U.S. Department of Commerce, is one federal agency that has been actively involved in the Commission's licensing process for conventional hydropower projects and we expect would be similarly involved in new technology projects.

Cooperation and consultation with the agencies begins early in application development and continues throughout the licensing process. The Commission requires

that applicants consult with agencies and tribes in the preparation of a license application. Under the Federal Power Act, Congress assigned the state and federal fish and wildlife agencies specific authority in hydropower licensing. Essentially, the Commission is to accept state and federal fish and wildlife agency recommendations unless they clearly are in conflict with another part of the statute. These recommendations contribute to the comprehensive balancing of energy development and the protection of fish, wildlife, recreation, and other resources. Finally, the Commission's licensing process and supporting analysis incorporates other statutes in which Congress has given important authorities to the states such as the Coastal Zone Management Act of 1972 and the National Historic Preservation Act of 1966. Together, these statutory, regulatory, and informal relationships have supported good coordination and cooperation with the agencies that will extend to the new technologies.

FLEXIBILITY TO ADAPT COMMISSION PROCESSES TO ACCOMMODATE THE NEW TECHNOLOGIES

While the Commission has a strong foundation for overseeing the orderly development of these new technologies, we also recognize the need to tailor the program to the characteristics of these new technologies. Within our established process, significant flexibility exists to apply innovative approaches when appropriate. For instance, in the Makah Bay and Roosevelt Island cases, Commission staff has allowed the use of different license processes that better fit the applicants' needs. This flexibility has enabled 1) the inclusion of Commission staff and stakeholders in the study development

and implementation and 2) the development of much of the National Environmental Policy Act information in parallel with the project's license application development. In the Roosevelt Island case, the process may also encourage negotiation of a settlement.

In addition, the Commission has been proactive in addressing the new issues unique to this nascent industry. In 2005, as activity in the field of new hydropower technologies began to increase, the Commission's Office of Energy Projects formed a committee of technical and legal staff to initiate research on the regulatory, environmental, and developmental aspects of these new technologies. On December 6, 2006, the Commission hosted a technical conference to discuss the status of new technologies in hydroelectric generation from ocean waves, tides, and currents and from free-flowing rivers, and to explore the environmental, financial, and regulatory issues pertaining to the development of these technologies. Conference participants included ocean energy developers and consultants, trade associations, representatives from state and federal agencies, non-governmental organizations, and members of the public. Following the conference, the Commission solicited and received written comments from the participants.

In the case of experimental pilot projects the Commission has shown flexibility in the application of the statute. For example, the Commission determined that Verdant Power could install its six-turbine demonstration project in the East River without applying for a Commission license. In a July 27, 2005, Order on Clarification, the Commission concluded that Verdant's activities effectively would have no net impact on the interstate electric power grid or on interstate commerce. This determination

established a policy that allows experimentation without a license when 1) the technology in question is experimental; 2) the proposed facilities are to be used for a short period and for the purpose of developing a hydropower license application; and 3) power generated from the test project will not be transmitted into, or displaced from, the national electric energy grid. In addition to testing power generation, Verdant will carry out extensive monitoring of fishery impacts as part of the experimental deployment. Although not required to be licensed during its testing phase, Verdant was of course obligated to obtain necessary approvals under other existing state and federal statutes. Staff continues to explore new ways to accommodate experimental pilot projects within the maximum flexibility allowed by statute.

In order to respond to industry concerns about the applicability of the existing preliminary permit system to new technology projects, the filing of a large number of recent applications for preliminary permits using “new technology”, and to follow up on the Hydroelectric Infrastructure Technical Conference, the Commission on March 1, 2007, issued a notice in the Federal Register seeking comments on how the Commission should treat applications for and regulate preliminary permits for hydropower projects involving wave, current, and instream technologies. The notice set an interim policy for reviewing such applications, proposing to scrutinize them strictly by imposing requirements on any permits issued, such as the submission of progress reports, the development of study plans, and the establishment of deadlines to file a subsequent license application. Alternatives to the strict scrutiny policy include: (1) continuing the standard policy for processing applications for hydropower permits, by not subjecting

them to extensive scrutiny and not imposing additional requirements on permit holders; or (2) declining to issue any preliminary permits for projects involving new technology, in which case applicants could only pursue such projects directly through the licensing process. Based on the comments received, the Commission is now deciding which of these options is in the public interest.

In the meantime, under the interim policy, the Commission is ensuring that permit holders are actively pursuing studies and consultations that may lead to development of a license application in hopes of preventing site-banking, the practice of reserving potential project sites without intent to develop projects. The Commission also is processing preliminary permit applications with a view toward limiting the boundaries of the permits. This approach should provide a disincentive for developers to seek permits for projects that they are not ready to pursue.

WORKING WITH THE MINERALS MANAGEMENT SERVICE ON THE OCS

The Commission is committed to achieving a fair and predictable regulatory program that allows orderly development of new technology projects while considering environmental, recreational, cultural, and other uses of the resource. To address concerns about overlapping jurisdiction of the Commission and the MMS, both staff and Chairman Kelliher have met with representatives of the Department of the Interior. The two agencies have agreed to work together to develop a Memorandum of Understanding that will apply the best resources and authorities of both agencies to develop an efficient and effective program for regulating the development of hydropower in all offshore areas,

including the OCS.

As we have learned in our MOU discussions, the Commission and the MMS bring complementary strengths to developing such a program. The Commission offers an existing and adaptable hydropower licensing program with the goal of ensuring that any project licensed will be best adapted to a comprehensive plan for development of the water resource in the public interest. This program would provide consistency across hydropower generation projects in state and federal waters including providing federal oversight for transmission of power from the project site to the electric grid. MMS offers an established set of tools for comprehensive planning for the development of the OCS and extensive leasing experience as a land management agency. Efficient use of the considerable resources of the two agencies could work to the benefit of all parties.

CONCLUSION

In closing, the Commissioners have stated publicly their interest in promoting the development of this potentially important source of renewable energy. They also have expressed their desire to reduce regulatory barriers to the development of new technologies, where possible.

We are confident that under the Commission's statutory structure, refined over almost a century, hydropower resources using new technologies can be developed in an orderly way while protecting other beneficial public uses, such as fish and wildlife, and meeting the requirements of other federal statutes and state interests. As experience is gained in the area of new hydropower technologies, we will make appropriate regulatory

adjustments as we have in response to other technology changes in the past. We will work with the Minerals Management Service to develop a program for the OCS that makes the best and most efficient use of our respective resources and provides thorough analysis of environmental impacts, and we will continue to cooperate and consult with other federal agencies, including NMFS, and individual states in the licensing of new technology projects. We look forward to continuing to carry out the Congressional mandate in the Federal Power Act and performing our regulatory duties fairly, openly, and efficiently to realize the potential of this promising renewable energy resource.

That concludes my remarks and I would be pleased to answer any questions you may have.