

**Testimony of**

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**Before the Committee on Energy and Natural Resources, United States Senate**

**Oversight Hearing on**

*S. 629, to improve hydropower, and for other purposes; S. 630, to promote marine and hydrokinetic renewable energy research and development, and for other purposes; and Title I, subtitle D of the American Clean Energy Leadership Act of 2009 (S. 1462 from 111th Congress).*

**March 31, 2011**

Chairman Bingaman, Ranking Member Murkowski, and Members of the Committee:

My name is Jeff Wright and I am the Director of the Office of Energy Projects at the Federal Energy Regulatory Commission (Commission or FERC). I appreciate the opportunity to appear before you to discuss S. 629, S. 630, and S. 1462. 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.

#### I. Background

The Commission regulates over 1,600 hydropower projects at over 2,500 dams pursuant to Part I of the Federal Power Act (FPA). Together, these projects represent 54 gigawatts of hydropower 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. electric generation capacity.

Under the FPA, non-federal hydropower projects must be licensed by the Commission if they: (1) are located on a navigable waterway; (2) occupy federal lands; (3) use surplus water from a federal dam; or (4) are located on non-navigable waters over which Congress has jurisdiction under the Commerce Clause, involve post-1935 construction, and affect interstate or foreign commerce.

The FPA authorizes the Commission to issue either licenses or exemptions for projects within its jurisdiction. Licenses are generally issued for terms of between 30 and

50 years, are renewable, and carry with them the right to exercise federal eminent domain to obtain property necessary for the construction, operation, and maintenance of a project. Exemptions are perpetual, and thus do not need to be renewed, but do not permit the use of eminent domain. Congress has established two types of exemptions. First, section 30 of the FPA allows the Commission to issue exemptions for projects that utilize for generation only the hydroelectric potential of manmade conduits that are operated for the distribution of water for agricultural, municipal, or industrial consumption, and not primarily for the generation of electricity. Conduit projects must be located on non-federal lands, and have a maximum capacity of 15 megawatts (40 megawatts if the exemptee is a state or local government entity). Second, in section 405(d) of the Public Utility Regulatory Policies Act, Congress authorized the Commission to grant exemptions for small hydroelectric power projects having an installed capacity of 5,000 kilowatts or less. To qualify for this type of exemption, a project must be located at an existing dam that does not require construction or the enlargement of an impoundment, or must use the hydropower potential of a natural water feature, such as a waterfall. Both types of exemptions are subject to mandatory fish and wildlife conditions provided by federal and state resource agencies.

The Commission has established three licensing processes, with the intent of allowing parties to select the process that is best suited to individual proceedings. The integrated licensing process (ILP) frontloads issue identification and environmental study to the period before an application is filed, and is thus well-suited to complex cases with substantial issues. The alternative licensing process (ALP) allows participants significant

flexibility to tailor licensing procedures in a manner that may work well for unique cases. The traditional licensing process (TLP), in which environmental and other work can occur after the application is filed appears to work best for less controversial matters. The TLP may be the process that is best-suited for many simple cases involving exemptions or small, low impact licenses. Commission staff has also developed a pilot licensing process for hydrokinetic projects in which, with the assistance of federal and state resource agencies, a project can be licensed in as little as six months.

It is extremely important to note that project developers and other stakeholders, not the Commission, in most instances play the leading role in determining project success and whether the regulatory process will be short or long, simple or complex. The first key issue is site selection and proposed project operation. For example, the processing of applications tends to be expedited when applicants propose projects that: (1) are located at an existing dam where hydropower facilities do not currently exist, (2) would result in little change to water flow and use, (3) are unlikely to affect threatened and endangered species and are unlikely to need fish passage facilities, and (4) involve lands and facilities that are already owned by the applicant. To the extent that a proposed project, even one of small size, raises concerns about water use and other environmental issues, it may be difficult for the Commission to quickly process an application. It is important to remember that the small capacity of a proposed project does not necessarily mean that the project has only minor environmental impacts.

Another, and related, factor is the extent to which project developers reach out to affected stakeholders. If a developer contacts concerned citizens, local, state, and federal

agencies, Indian tribes, and environmental organizations, and works with them to develop consensus as to what information is needed to understand the impacts of a project and what environmental measures may be appropriate, and to develop support for the project, the application and review process is likely to be simpler and quicker. Where a project comes as a surprise to affected entities or where a developer does not respond to expressed concerns, the Commission's job becomes much more difficult, because the Commission must, and does, ensure that all expressed concerns are addressed.

A final, and again related, matter is the development of the full record that the Commission needs to act on an application. A potential applicant needs to work with Commission staff and with federal and state resource agencies and other stakeholders to determine what information is needed to support an application, and to provide the Commission with a complete application. Where Commission staff or other stakeholders must ask an applicant to provide information that is missing from an application, the regulatory process slows down.

The other entities with roles in the licensing and exemption process regarding small hydropower projects are also key to its success. The quickest, most efficient process can be achieved only where federal and state agencies, as well as other stakeholders, devote the resources early on to help project review move ahead, and where they display the flexibility to look at the merits of individual projects and the willingness to shorten the process in appropriate cases. Commission staff is dedicated to making the regulatory process as short and cost-effective as possible. We can only do that where applicants, resource agencies, and other stakeholders serve as willing partners in the

process.

## II. Commission Efforts Regarding Small and Innovative Projects

The majority of the hydropower projects regulated by the Commission are small projects, with about 71 percent having an installed capacity of 5 megawatts (MW) or less. In recent years, the Commission has seen a greatly increased interest in small hydropower projects, in innovative hydrokinetic projects, and in pumped storage projects, particularly closed loop pumped storage, which does not involve regular water withdrawals from rivers or other water sources. The Commission has responded by implementing a number of measures to facilitate efficient review of project proposals. In 2007, in order to provide personalized, responsive service to entities seeking to develop small hydropower projects, Commission staff established a dedicated phone line and email address for inquiries on small hydropower, developed a brochure to provide guidance to potential developers of small, low impact hydropower projects, and put these resources and a list of frequently-asked questions on the Commission's website.

In light of the continued growing interest in such development, the Commission held a technical conference on December 2, 2009, at its Washington, D.C. headquarters to explore issues related to licensing, and exempting from licensing, small non-federal hydropower projects in the U.S. The December technical conference generated discussion on recommendations that could improve the process for authorizing small hydropower projects. In addition to insights received from the panelists and attendees at the December conference, written comments were solicited and over 40 comment letters were received from industry representatives; federal, state, and local agencies; private

citizens; and non-governmental organizations. At the Commission's April 15, 2010 meeting, staff reported on the conference and the comments received, and presented an action plan to assist and expedite the review of small hydropower proposals. The action plan adopted the following immediate changes: (1) adding new web-based resources to the Commission's website ([www.ferc.gov](http://www.ferc.gov)) to make it easier for applicants to understand and complete the licensing process; (2) updating or creating Memoranda of Understanding (MOUs) with other agencies to improve coordination; (3) continuing our small hydropower hotline and email address to answer applicant questions; and (4) educating potential small hydropower developers through a new education and outreach program.

The Commission has, under its small hydro initiative, held numerous outreach meetings with small hydropower developers and interested stakeholders, and implemented web based tools, such as conduit application templates and application checklists, which potential applicants can use to prepare their applications. The small hydro website further contains guidance and sample letters that applicants can use to obtain waivers from fish and wildlife agencies for part of the pre-filing consultation process. The Commission staff has also relaxed some of the standards, under Section 4.39 of its regulations, for exhibits and drawings for conduit applications. For those applicants that have filed complete and adequate applications, and for which the Commission has determined that impacts are minimal, the Commission has reduced the public notice period from 60 days to 30 days and the reply period from 45 days to 15 days. A number of conduit exemptions have been approved in as short as two months

from the date that an application has been deemed complete.

Since the April 15, 2010 Commission meeting, we have signed an MOU with the State of Colorado to expedite the small hydro licensing process (August 2010); launched a small hydro program website (August 2010); participated in small hydro workshops in Oregon (September 2010), Massachusetts (October 2010), and New Hampshire (November 2010); conducted two webinars on our small hydro website (November/December 2010); and updated our small hydro brochure. Upcoming outreach efforts will include: participating in small hydro workshops in Washington, DC, Vancouver, BC, and California as well as conducting another webinar this summer. We have also completed an update on our MOU with the Army Corps of Engineers.

The MOU with the State of Colorado provides an excellent example of a Federal-State solution for developing a pilot process to find flexible and innovative ways to reduce barriers to small hydro and conduit project development. In order to facilitate the Commission approval of such projects, the MOU provides that Colorado will prescreen any proposals and ensure that the applications are complete and meet Commission regulations before they are filed.

With this background, I will turn to the draft legislation.

### III. S. 629

S. 629, the Hydropower Improvement Act of 2011, has the laudable goal of increasing hydropower capacity and generation in United States. I strongly support that goal, and offer comments on specific sections of the bill.



A. Sections 5 and 6

Sections 5 and 6 of the bill would authorize the Secretary of Energy to issue grants to increase hydropower generation, and to support hydropower research, development, and demonstration projects. I support these sections, which would assist in the development of additional renewable energy.

B. Section 7

Section 7 would require the Commission to investigate the feasibility of implementing a two-year licensing process, in particular, with respect to hydropower development at existing, non-powered dams, and for closed-loop pumped storage projects.

I support the goal of an expedited licensing process. Indeed, as I have discussed, it is Commission staff's goal to act on all license applications as quickly as possible, and the Commission has established processes that allow for great flexibility and efficiency. I am thus not certain whether an additional licensing process is necessary. During the last few years, we have been able to issue some licenses in a matter of a few months, where the project proponent had selected a site wisely, stakeholders had agreed on information needs, and state and federal agencies performed their responsibilities quickly. Moreover, the Commission operates under significant constraints imposed by the FPA, and by other legislation affecting the licensing process – the Clean Water Act, Coastal Zone Management Act, Endangered Species Act, and National Historic Preservation Act among them. In the absence of the ability to waive sections of the FPA and other acts, or

to set enforceable schedules in licensing proceedings, it is not clear that the Commission, under its existing authorities, can mandate a shortened process.

### C. Section 8

Section 8 would establish various measures to promote conduit and small hydropower projects. Again, this goal is consistent with Commission policy and has been a major focus of Commission's staff's effort in the last few years.

Section 8(a)(1) would amend section 30 of the FPA to allow conduit projects to be located on federal lands. I support this provision, which would remove the current bar on siting conduit projects on federal lands. This section would also amend the FPA to provide conditioning authority to federal land management agencies. These agencies already have the ability to impose conditions on proposed projects through the requirement that developers obtain special use authorizations under the Federal Land Management and Policy Act, so this amendment may not alter the current regulatory regime. As a general matter, however, I do have some concern that authorizing additional mandatory conditioning authority may slow down the licensing process and result in increased potential bars to hydropower development.

Section 8(a)(3) would require the Commission and the Commissioner of Reclamation to conduct regional public workshops on reducing barriers to conduit hydropower projects and thereafter report any recommendations to Congress. We have worked successfully with the Bureau of Reclamation in the past and are prepared to join Reclamation in this effort.

Section 8(b) would require the Commission to conduct regional public workshops on reducing barriers to small hydropower projects, and to report the results of this effort to Congress. Noting the outreach efforts described above, we are prepared to undertake this additional effort should Congress deem it helpful.

D. Section 9

Section 9 would amend the FPA to authorize the Commission to extend the term of a preliminary permit issued under FPA section 5 once for up to two years. Preliminary permits grant the permittee a “first-to-file” preference with respect to license applications for projects being studied under a permit. Commission staff has heard anecdotally that developers are concerned that the need for environmental studies in some instances makes it difficult to complete a license application within the current maximum three-year term of a permit, with the result that a developer which has invested substantial time and money studying a project may face the possibility of losing its project based on competition from other entities – particular those with statutorily-granted municipal preference -- if it needs to seek a subsequent permit. I therefore support the proposed FPA amendment, which could ameliorate this problem. It might be worth considering, as an alternative, authorizing the Commission to issue permits for terms of up to five years, which could avoid the need for developers to go through the process of seeking an extension.

E. Section 10

Section 10 would require the Commissioner of Reclamation, in consultation with the Commission, to study barriers to non-federal hydropower development at Bureau of

Reclamation projects and to develop a memorandum of understanding to improve the coordination and timeliness of such development. We have already begun working with the Bureau of Reclamation on this matter, and we have no objection to Section 10.

#### IV. The Marine and Hydrokinetic Renewable Energy Promotion Act of 2011

S. 630 would authorize the Secretary of Energy to take various steps to promote marine and hydrokinetic renewable energy technology. As a general matter, the bill is consistent with the Commission's initiatives to support the development of appropriate marine and hydrokinetic projects, which I have previously described. I have only two comments on the bill.

Section 3 of S. 630 would allow the Secretary of Energy to issue grants to support national testing facilities for marine and hydrokinetic technology research, development, and demonstration. Commission staff has informally discussed this concept with DOE staff over the last year or so, and I believe that testing centers could be extremely helpful in the development of new renewable technologies. Section 3 provides that test centers may be nonprofit institutions, state or local governments, national laboratories, or National Marine Renewable Energy Research, Development, and Demonstration Centers established pursuant to section 634 of the Energy Independence and Security Act of 2007. The Federal Power Act contains no provisions allowing the Commission to authorize the testing of jurisdictional hydropower facilities; accordingly, with some limited exceptions, tests centers operated by private entities or by state and local government may be required to be licensed by the Commission. Moreover, if a test center were to use a variety of technologies with differing environmental impact, the

Commission might be required to issue separate authorizations for individual tests. This would not be the case for centers under the aegis of other federal entities, such as DOE, which do not fall within the Commission's jurisdiction. Therefore, to allow for the maximum flexibility and simplicity, it may be worth considering either placing any test centers under the authority of DOE or another federal agency or providing an exemption from the provisions of Part I of the FPA for such test centers.

Second, section 6 of the bill would authorize the Secretary of Energy to issue grants to advance the development of marine and hydrokinetic renewable energy; to help fund the costs of environmental analysis, the collection and dissemination of environmental data; and to support demonstration projects. The provision of grant funding to address the environmental information needs surrounding these new technologies directly addresses an issue of concern to federal agencies and other stakeholders. Environmental information is essential to the development and regulation of energy projects, yet, because marine and hydrokinetic technology is relatively new, and because these projects may be sited in areas, such as coastal zones, where the environment is not as well understood as onshore areas, much necessary information has yet to be developed. The cost of obtaining environmental information falls in large part on pioneering developers, and may thus discourage their efforts. The Commission and other federal agencies are partnering to reduce this burden by assembling and sharing environmental information. However, there are still issues which will require new studies, some of which are relevant to many developers. Federal funding to support gathering such information will help the regulatory process and advance the development of the technology as a whole.

## V. The American Clean Energy Leadership Act of 2009

Title I, subtitle D of the American Clean Energy Leadership Act deals with the integration of energy and water resources. While this subtitle would not impose any direct requirements on the Commission, I note that the Commission recognizes the link between energy development and the use of our Nation's water resources. In siting natural gas and hydropower projects, the Commission conducts thorough analyses of the impact of proposed projects on water resources, authorizes only those projects that appropriately balance energy development and environmental protection, and imposes mitigation measures to ensure that approved projects are developed in an environmentally responsible manner.

## VIII. Conclusion

There is a great deal of potential for the development of additional hydropower projects throughout the country, including small projects and marine and hydrokinetic projects. Working within the authority given it by Congress, the Commission continues to adapt its existing, flexible procedures to facilitate the review and, where appropriate, the approval of such projects. Commission staff remains committed to exploring with project developers, its sister federal agencies, Indian tribes, the states, local government, and other stakeholders every avenue for the responsible development of our nation's hydropower potential. The legislation under consideration will, as I have testified, assist in realizing that potential.

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