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ONE HUNDRED FIFTEENTH CONGRESS

Congress of the United States
House of Representatives

COMMITTEE ON ENERGY AND COMMERCE
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WASHINGTON, DC 20515-6115

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MEMORANDUM

March 13, 2017

To: Subcommittee on Energy Democratic Members and Staff

Fr: Committee on Energy and Commerce Democratic Staff

Re: Hearing on "Modernizing Energy Infrastructure: Challenges and Opportunities to Expanding Hydropower Generation"

On **Wednesday, March 15, 2017, at 10:00 a.m. in room 2123 of the Rayburn House Office Building**, the Subcommittee on Energy will hold a hearing entitled "Modernizing Energy Infrastructure: Challenges and Opportunities to Expanding Hydropower Generation."

I. FEDERAL HYDROELECTRIC POWER REGULATION

Hydropower facilities built by utilities in interstate commerce are licensed by the Federal Energy Regulatory Commission (FERC) under Part I of the Federal Power Act of 1935 (FPA). Under Section 6 of the FPA, FERC licenses hydroelectric projects for periods of up to 50 years.[1] Section 15 of the FPA provides for the relicensing of existing projects and automatic annual extensions for those projects whose licenses have expired but have yet to complete the relicensing process.[2]

The FPA predates modern environmental statutes such as the Clean Water Act, the National Environmental Policy Act and the Endangered Species Act. As is common for statutes passed before the 1970s it mostly focused on power production with few protections for the environment, recreation or similar considerations. One exception to this is Section 4(e) of the FPA, which required that any license within a reservation (e.g. a national wildlife refuge, national park, etc.) not interfere or be inconsistent with that reservation's purpose and that the license be subject to "such conditions as the Secretary of the department under whose

[1] 16 USC § 799.

[2] 16 USC § 808(a).

supervision such reservation falls shall deem necessary for the adequate protection and utilization of such reservation."[3] Another important environmental protection incorporated into the Act was the requirement in Section 18 that the Commission require licensees to construct, maintain and operate "such fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce" in order to protect fish populations.[4]

In 1986, Congress enacted the Electric Consumers Protection Act (ECPA), PL 99-495, which significantly amended the FPA to require greater consideration of the environmental and recreational impacts of hydroelectric facilities in the licensing process. In particular, ECPA required FERC's decision to issue a license not be based on power generation alone, but to also "give equal consideration to" such things as fish and wildlife protection and enhancement, energy conservation, protection of recreational uses of a river, "and the preservation of other aspects of environmental quality."[5] ECPA also, among other things, added subsection (j) to Section 10 of the FPA which requires a license contain conditions to "adequately and equitably protect, mitigate damages to, and enhance fish and wildlife…affected by the development, operation, and management of the project" and that such conditions be based on recommendations from federal and state fish and wildlife agencies.[6]

As part of the Energy Policy Act of 2005, Congress enacted a new set of reforms to the hydroelectric licensing process in response to longstanding complaints that the process both took too long and resulted in uneconomic projects.[7] However, many licensees and their supporters continue to view the process as onerous and have called for further legislative changes, particularly with regard to resource agencies' mandatory conditioning authority.[8]

II. BONNEVILLE POWER ADMINISTRATION

The U.S. Department of Energy (DOE) operates four regional power marketing administrations (PMAs), including the Bonneville Power Administration (BPA) which was the first PMA. These agencies all operate on the principle of selling wholesale electric power, with preference given to publicly or cooperatively owned utilities, "at the lowest possible rates to

[3] 16 USC §797(e).

[4] 16 USC § 811.

[5] 16 USC §797(e).

[6] 16 USC §803(j).

[7] See, e.g., House Committee on Energy and Commerce, *Hydroelectric Legislation*, 106th Cong. (Mar. 30, 2000) (Serial No. 106-106) (www.gpo.gov/fdsys/pkg/CHRG-106hhrg64033/html/CHRG-106hhrg64033.htm).

[8] See, e.g., American Public Power Association, *Hydropower Issue Brief* (Feb. 2015) (publicpower.org/files/PDFs/Hydropower_1485898717956_2.pdf).

consumers consistent with sound business practices" under the Flood Control Act of 1944 (16 U.S.C. §825s). [9]

Congress enacted the Bonneville Project Act of 1937 (16 U.S.C. §832) which established BPA just before the completion of the Bonneville Dam in 1938 and Grand Coulee Dam in 1941. The agency constructed and maintains approximately 75% of the high voltage transmission lines in the Northwest, totaling over 15,000 miles.[10] BPA's territory includes Idaho, Oregon, Washington, Montana, and parts of California, Nevada, Utah and Wyoming.[11]

BPA markets wholesale electrical power from 31 Army Corps and Bureau of Reclamation hydroelectric projects in the Northwest. It also sells power generated by nonfederal sources comprised of the Columbia Generating Station nuclear plant and a number of small power plants. The Columbia Generating Station, "is owned and operated by Energy Northwest, a joint operating agency of the state of Washington." BPA provides about 28 percent of the electric power used in the Northwest.[12]

BPA is part of DOE ; however, unlike the other PMAs, it is self-funding. According to CRS, since 1974, BPA has covered "its operating costs through power rates set to ensure repayment to the Treasury of capital and interest on funds used to construct the Columbia River power system."[13] BPA also has permanent Treasury borrowing authority, for use on large projects and subject to repayment, with interest, financed by monies recouped through power sales.[14]

One of the unique aspects of the BPA system is that, unlike nonfederal hydroelectric projects which are licensed by FERC, BPA projects are subject to planning and actions carried out by the Pacific Northwest Electric Power and Conservation Planning Council (Northwest Power and Conservation Council) established by the Pacific Northwest Electric Power Planning

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[9] Congressional Research Service, *Power Marketing Administrations: Background and Current Issues* (Jan. 7, 2008) (RS22564) (www.crs.gov/Reports/RS22564?source=search&guid=760a1e1cac9b45aa9eaa7ea572140230&index=4).

[10] *Id.*

[11] Bonneville Power Administration, *BPA Facts* (May, 2016) (www.bpa.gov/news/AboutUs/Pages/default.aspx).

[12] *Id.*

[13] Congressional Research Service, *Power Marketing Administrations: Background and Current Issues* (Jan. 7, 2008) (RS22564) (www.crs.gov/Reports/RS22564?source=search&guid=760a1e1cac9b45aa9eaa7ea572140230&index=4).

[14] *Id.*

and Conservation Act of 1980 (Northwest Power Act).[15] The Council is comprised of two representatives each from the states of Oregon, Washington, Montana and Idaho.[16] Among other things, the Council is charged with forecasting how much energy the region will need over a 20-year period and developing a power plan every five years to meet those needs. It must also develop plans to protect, mitigate and enhance the region's fish and wildlife species. Details of the seventh, most recent plan can be found on the Council's web page.[17] Since it is primarily a planning and policy body, the Council relies on BPA, the Corps, the Bureau of Reclamation, FERC and public and private utilities to carry out its programs.[18]

III. WITNESSES

The following witnesses have been invited to testify:

Chuck Hookham, P.E.
Director of NBD Services
CMS Energy
On behalf of the American Society of Civil Engineers;

Kieran Connolly
Vice President of Generation and Asset Management
Bonneville Power Administration

Ramya Swaminathan
CEO, Rye Development
On behalf of the National Hydropower Association;

Mr. David Steindorf
California Stewardship Director
American Whitewater
On behalf of the Hydropower Reform Coalition

[15] 16 USC §839, et. seq.

[16] 16 USC §839b.

[17] The Northwest Power and Conservation Council, *Seventh Power Plan* (Feb. 25, 2016) (nwcouncil.org/energy/powerplan/7/plan/).

[18] Foundation for Water & Energy Education, *How Hydroelectric Projects Are Regulated* (fwee.org/nw-hydro-tours/how-the-northwest-hydro-system-works/how-hydroelectric-projects-are-regulated/) (accessed Mar. 9, 2017).