

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Notice of Application Ready for Environmental) Project No. P-2149-152
Analysis and Soliciting Comments,)
Recommendations, Terms and Conditions, and)
Prescriptions)

**BONNEVILLE POWER ADMINISTRATION
AND
THE UNITED STATES ARMY, CORPS OF ENGINEERS,
SEATTLE DISTRICT (CORPS)
COMMENTS IN RESPONSE TO THE COMMISSION'S
NOTICE OF PROPOSED RULEMAKING**

Bonneville Power Administration (Bonneville) and the United States Army, Corps of Engineers, Seattle District (Corps) hereby file the following comments in response to Public Utility District No. 1 of Douglas County's (Douglas) application for relicense of the Wells Hydroelectric (FERC Project No. P-2149-152) and the Federal Energy Regulatory Commission's (FERC) Notice of Notice of Application Ready for Environmental Analysis and Soliciting Comments, Recommendations, Terms and Conditions, and Prescriptions for the relicense application. Bonneville and the Corps are providing this response to comment on provisions that are appropriate to include in the new license.

Encroachment

Background

The Corps' Chief Joseph Dam is located approximately thirty (30) miles upstream from the Wells Hydroelectric Project (Wells). When FERC initially authorized the construction of Wells, approximately 4 years after Chief Joseph generating units 1-16 were completed in 1958, it was recognized that encroachment of Chief Joseph would occur. Encroachment occurs when the tailwater elevation of a hydroelectric project is impacted by the forebay elevation of a second hydroelectric project. Energy production from a unit of water is directly proportional to operating head, which is the difference between the forebay elevation and tailwater elevation; the greater distance between a hydroelectric project's forebay elevation and tailwater elevation the greater the project's operating head which in turn increases energy production at the project. If the tailwater elevation is increased or the forebay elevation decreased, a hydroelectric project's generating capacity is reduced.

When Wells was constructed, Chief Joseph Dam's tailwater elevation was increased. Recognizing the subsequent encroachment, FERC required Douglas to compensate the Corps for the encroachment as a condition of its license for Wells.

As the Federal Power Marketing Administration in the Pacific Northwest, Bonneville markets power generated at the Federal hydroelectric facilities that are part of the Federal Columbia River Power System (FCRPS), including the Corps' Chief Joseph Dam. Any reduction in the generation capacity at an FCRPS project results in a reduction of revenue Bonneville would otherwise generate.

Existing License

The current FERC license for Wells requires Douglas to do the following:

Article 32. With respect to compensation to the United States for the losses caused to the Chief Joseph Project by encroachment upon its tailwater by the operation of the Licensee's project:

(i) The licensee shall, prior to beginning of operation of the Wells power plant, enter into an agreement with the Chief of Engineers, Department of the Army, or his designated representative, to compensate the United States for encroachment on the Chief Joseph Project resulting from the operation of the Wells Project. The agreement will provide for replacement of power loss at Chief Joseph in time and kind, unless otherwise mutually agreed. The loss will be computed on the basis of using the same quantity of water at any given time through the units of the Chief Joseph powerhouse with and without the Wells Project. The difference in power output will be the loss to be replaced. In any computation pertaining to the power loss, the generating capacity will be limited to 125 percent of nameplate rating. The turbine and generator units to be used in computing the loss will be those in existence at Chief Joseph at the time the Wells Project is licensed, and

(ii) The licensee also shall compensate the United States for the increased cost of future turbines, units 17 through 27, required to generate the same power under reduced head conditions as a result of the encroachment of the Wells pool on Chief Joseph tailwater. Such compensation will be a capital sum of \$294,000 payable to the Treasurer of the United States on or before operation of the initial installation at the Wells Project.

Pursuant to Douglas' license requirements, Douglas and the Corps currently have an encroachment agreement in place. This agreement will expire concurrently with the current FERC license for Wells. In addition, because Bonneville is the Federal agency responsible for marketing the power generated at Chief Joseph Dam, Bonneville and Douglas have executed an agreement to cover the delivery of power from Douglas to Bonneville as compensation for the encroachment. This agreement will also expire concurrently with the current FERC license for Wells.

New License

Bonneville and the Corps encourage FERC to include provisions in the new Wells License that will guarantee continued compensation to the United States for the losses resulting from the operation of Wells. This compensation should provide for replacement of power loss at Chief Joseph Dam in time and kind for the units in existence at Chief Joseph Dam at the time Wells is licensed. The license should also include a provision to compensate the United States for the planned and funded turbine runner upgrades on Units 5 – 14 (upgrades began May 2010 with an estimated completion in Fiscal Year 2014). The loss calculation should use the same quantity of water at any given time through the units of the Chief Joseph powerhouse with and without the Wells Project. The difference in power output will be the loss to be replaced.

Justification

The continued encroachment of Chief Joseph Dam by the operation of Douglas' Wells Project is compensable pursuant to 16 USC §803 of the Federal Power Act, "Conditions of License Generally." 16 USC §803(c) requires the following:

Each licensee hereunder shall be liable for all damages occasioned to the property of others by the construction, maintenance, or operation of the project works or of the works appurtenant or accessory thereto, constructed under the license and in no event shall the United States be liable therefore.

FERC initially found that the construction, maintenance and operation of Wells "damaged" the ability of Chief Joseph Dam to generate power because of the encroachment. In the years following the issuance of the initial license, there has been no reduction in the damage. It is therefore appropriate to continue the requirement that Douglas compensate the United States for lost generation in the new license.

Canadian Entitlement:

Background

In 1964, the United States and Canada finalized an international treaty, known as the Columbia River Treaty, through which the two nations jointly regulate and manage the Columbia River for power and flood control as it flows from British Columbia into the U.S. Bonneville and the Corps Northwestern Division Engineer are designated by Presidential Executive Order as the U.S. Entity responsible for carrying out the U.S. government's obligations under this Treaty. One of these obligations is to share with Canada, on an equal basis, the estimated increase in power generated at downstream U.S. dams as a result of the operation of Canadian storage developed under the Treaty. This estimated increased U.S. power generation is called the Downstream Power Benefit, and the Canadian half of this benefit is called the Canadian Entitlement.

The U.S. is required under the Treaty to deliver the Canadian Entitlement to Canada at a point on the U.S.-Canada border near Oliver, British Columbia, or at such other points as mutually

agreed. Upon mutual agreement, the Canadian Entitlement currently is delivered on a daily schedule to the Province of British Columbia at two points on the U.S.-Canada border – one near Blaine, Washington, and the other near Nelway, British Columbia. Between 2004 and 2015, the Canadian Entitlement has been (and will be) between 4,000,000 and 5,000,000 megawatt-hours annually.

The Treaty prohibits use for power generation of improved streamflow in the U.S. resulting from the operation of Canadian storage developed under the Treaty without the prior approval of the U.S. Entity. The U.S. Entity also is authorized by the Treaty to set conditions on any such use allowed by the U.S. Entity. Wells, along with other non-Federal dams, is situated in the mid-Columbia River system where improved streamflow in the U.S. pursuant to the Treaty occurs. Since 1964, Douglas and the other non-Federal dam owners have sought use of the improved streamflow for power generation purposes. Accordingly, the U.S. Entity has entered into a series of agreements with Douglas and the other non-Federal dam owners to allow use of the improved streamflow, so long as these non-Federal dam owners deliver to Bonneville the portion of the Canadian Entitlement generated at their projects. The most recent agreements with each non-Federal dam owner are in effect until September 2024.

Existing License

The Licensee shall use the improved streamflow from Canadian storage projects for power production purposes, and make available to the Federal system for delivery to Canada, or for its account, the project's share of coordinated system benefits resulting from such improved streamflows, both dependable hydroelectric capacity and average annual usable hydroelectric energy, as determined to be due to Canadian interests under the procedures established pursuant to any treaty between the United States and Canada relating to cooperative development of water resources of the Columbia River Basin.

New License

Bonneville and the Corps encourage FERC to include this same provision concerning the Canadian Entitlement in the new Wells Project license.

Justification

The existing license reflects the ongoing contractual duty of Douglas to coordinate with Bonneville and the Corps concerning Wells' share of the Canadian Entitlement that the U.S. government is obligated to deliver to Canada under the Columbia River Treaty. Because Douglas' duty will continue to exist even with issuance of a new license for Wells, it is appropriate to continue to reflect this duty in the new license.

Headwater Benefits

Background

Headwater benefits refer to the additional energy production at a hydroelectric project caused by the regulation of river flows by an upstream storage project. Payments for these benefits are generally in the form of monetary transactions based on allocations of storage costs of upstream storage projects. Currently there are four Federal storage projects upstream of Wells that provide headwater benefits to Wells. FERC recognized this benefit in the original license and required Wells to provide compensation to the owners of the upstream projects that provided the benefit.

In addition to the conditions present in the existing FERC license, Douglas is a party to the Pacific Northwest Coordination Agreement, a coordination agreement that establishes a mechanism for calculating and collecting Headwater Benefits.

Existing License

Article 47. For benefits made available to the Licensee by upstream storage improvements located in the United States and owned by the United States or its licensees, the licensee shall pay annual charges computed as follows:

The annual cost of interest, maintenance, and depreciation on the dam and reservoir of each headwater improvement project, to be borne by power both at-site and downstream, is to be apportioned to storage and head functions. The amount of such cost to be apportioned to the storage function shall be determined by multiplying such total cost by the ratio of the average power (at-site and downstream) from at-site storage during the critical period to the sum of the average power (at-site and downstream) from at-site storage during the critical period and the total average power at-site (from natural flow and from at-site and upstream storage) during the critical period. The amount of such annual cost of the headwater improvement thus apportioned to the storage function shall be apportioned to the at-site power plant and to each downstream plant in direct proportion to the average power from at-site storage at each plant during the critical period. The annual costs thus apportioned to Project No. 2149 shall be the annual payment to be made for headwater benefits; provided that the Commission may on its own motion or upon a request by the Licensee or any party adjust such amounts, or prescribe another and different formula or procedure to determine the annual payment for future years, after notice and opportunity for hearing; and provided, further, that if the Federal Power Act is amended with respect to headwater benefit payments, the Commission may determine the payments due under this license in accordance with the Act as amended.

New License

Bonneville and the Corps encourage FERC to keep the Headwater Benefits requirement in the new license.

Justification

Under Section 10(f) of the Federal Power Act, “Reimbursement by licensee of other licensees, etc.” 16 USC 803(f), a licensee must reimburse owners of upstream projects for benefits received:

That whenever any licensee hereunder is directly benefited by the construction work of another licensee, a permittee, or of the United States of a storage reservoir or other headwater improvement, the Commission shall require as a condition of the license that the licensee so benefited shall reimburse the owner of such reservoir or other improvements for such part of the annual charges for interest, maintenance, and depreciation thereon as the Commission may deem equitable.

In the original license issued for Wells, FERC determined that Wells received a benefit from the operation of upstream projects owned and operated by the Federal government. Because Wells continues to receive headwater benefits from the operation of the Federal projects, it is appropriate to continue this requirement in the new license.

Flood Damage Reduction

Background

The Columbia River has been subject to flooding for time immemorial. Construction of dams and various other structures have facilitated some flood damage reduction; however, the Columbia Basin, especially downstream of Wells Project, is still subject to flood damage. Prior to construction of Wells Project, flood waters passing downstream would rise in the reach of the Columbia River presently occupied by Wells Reservoir. That reach would act as a small natural reservoir as flood waters rose and valley storage accumulated in the natural channel. Construction and operation of Wells project filled the channel now occupied by Wells Reservoir and facilitated passing the flood discharge with little increase in the reservoir level resulting in lost valley storage relative to the natural channel condition and thus tending to exacerbate flooding at downstream locations. The existing license includes language as follows to compensate approximately for lost valley storage.

Existing License

Article 34. Each year before the beginning of flood runoff, the District Engineer, Corps of Engineers, in charge of the locality, shall inform the Licensee of the storage space to be provided in the Wells Project reservoir to compensate approximately for valley storage that may be expected to be lost during the ensuing flood season. The Licensee shall without cost to the United States provide this storage space in accordance with the following general procedures:

(i) The amount of storage space to be provided by the licensee will vary from zero acre-feet for a forecasted peak flow of 500,000 second-feet at The Dalles, Oregon, to approximately 125,000 acre-feet for a forecasted peak flow of 1,100,000 second-feet at The Dalles, the forecasted flows to be as regulated by storage existing at the time of license. To the extent feasible, and in order to minimize the duration of the drawdown of the Wells reservoir for valley storage replacement, the drawdown will be ordered by the District Engineer, not earlier than two weeks before the predicted date on which the observed flow at The Dalles is forecasted to equal or exceed 500,000 cfs and refill will be directed by the District Engineer generally within one week after voluntary filling of Grand Coulee Reservoir for flood control purposes is initiated.

(ii) Detailed procedures for use of the valley storage replacement in the Wells reservoir will be included in a regulation manual to be prepared by the District Engineer.

New License

Bonneville and Corps request that the requirement to mitigate for lost valley storage as listed above from the existing license be retained in any reissued license.

Justification

Section 10(a) of the Federal Power Act (16 U.S.C. § 803) requires FERC to condition licenses so that the project shall be best adapted to a comprehensive plan which incorporates beneficial public uses including irrigation, flood control, water supply, and recreational and other purposes. In so doing, FERC is directed to consider the recommendations of Federal and State agencies exercising administration over flood control. The Flood Control Act of 1936 (74 Pub. L. 738) invested the Corps with jurisdiction over improvement of rivers and other waterways for flood control and allied purposes. These provisions should be included in the new license to prevent increased flood risk from decreased storage capacity in the Columbia Basin.

Navigation

Background

Section 10 of the River and Harbor Act of 1899 (33 U.S.C. § 403) requires authorization from the Secretary of the Army, acting through the Corps of Engineers, for the construction of any structure in or over any navigable water of the United States. With regard to hydropower projects, where such structures will affect the navigable capacity of any navigable water of the United States (as defined in 16 U.S.C. § 796), the plans for the dam or other physical structures affecting navigation must be approved by the Chief of Engineers and the Secretary of the Army. In cases where the proposed structure is subject to FERC licensing procedures under 16 U.S.C. § 791(a) et seq., the interests of navigation should normally be protected by a Department of Army recommendation to FERC for the inclusion of appropriate provisions in the FERC license rather than the issuance of a separate DA permit under 33 U.S.C. § 401 et seq. The existing license includes a number of articles that safeguard the navigability of the Columbia River.

Existing License

Article 9. Insofar as any material is dredged or excavated in the prosecution of any work authorized under the license, or in the maintenance of the project, such material shall be removed and deposited so it will not interfere with navigation, and will be to the satisfaction of the district Engineer, Department of the Army, in charge of the locality.

Article 15. Whenever the United States shall desire to construct, complete, or improve navigation facilities in connection with the project, the Licensee shall convey to the United States, free of cost, such of its lands and its rights-of-way and such right of passage through its dams or other structures, and permit such control of pools as may be required to complete and maintain such navigation facilities.

Article 16. The Licensee shall furnish free of cost to the United States power for the operation and maintenance of navigation facilities at the voltage and frequency required by such facilities and at a point adjacent thereto, whether said facilities are constructed by the Licensee or by the United States.

Article 17. The operation of any navigation facilities, which may be constructed as a part of or in connection with any dam or diversion structure constituting a part of the project works, shall at all times be controlled by such reasonable rules and regulations in the interest of navigation, including the control of the level of the pool caused by such dam or diversion structure, as may be made from time to time by the Secretary of the Army.

Article 18. The United States specifically retains and safeguards the right to use water in such amount, to be determined by the Secretary of the Army, as may be necessary for the purposes of navigation on the navigable waterway affected; and the operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Secretary of the Army may prescribe in the interest of navigation, and as the Commission may prescribe for the protection of life, health, and property, and in the interest of the fullest practicable conservation and utilization of such waters for power purposes and for other beneficial public uses, including recreational purposes; and the Licensee shall release water from the project reservoir at such rate in cubic feet per second, or such volume in acre-feet per specified period of time, as the Secretary of the Army may prescribe in the interest of navigation, or as the Commission may prescribe for the other purposes hereinbefore mentioned.

Article 36. The Licensee shall, for the protection of navigation, construct, maintain, and operate at its expense such lights and other signals on fixed project structures in or over navigable water of the United States as may be directed by the Commission upon recommendation by the Secretary of the Department in which the Coast Guard is operating.

New License

The Corps encourages FERC to include these requirements in the new Wells license so that the navigation interests of the United States will be protected without the necessity for the licensee to obtain a separate Department of the Army permit under 33 U.S.C. § 401 et seq.

Justification

16 U.S.C. § 804 permits FERC to include in a license provisions substantially similar to Articles 15 and 16 above when a project is constructed across, along, or in any of the navigable waters of the United States. 16 U.S.C. § 811 directs FERC to require the construction, maintenance and operation by a licensee at its own expense of navigational lights and signals, as reflected in Article 36 above, and further requires language substantially similar to that found in Article 17 above.

As stated above, Section 10 of the River and Harbor Act of 1899 (33 U.S.C. § 403) requires authorization from the Secretary of the Army, acting through the Corps of Engineers, for the construction of any structure in or over any navigable water of the United States. FERC and the Corps have entered into a Memorandum of Understanding which states that the Corps' review and approval of a project design with regard to impact on navigation shall be in conjunction with the FERC licensing process, and the license shall stand in lieu of a Section 10 permit. (Memorandum of Understanding Between the Federal Energy Regulatory Commission and the Department of the Army Regarding Non-Federal Hydropower Development, dated Nov. 2, 1981) Inclusion of these provisions in the new license will ensure that the navigation interests of the United States will be protected without the necessity for the licensee to obtain a separate Department of the Army permit.

Thank you for considering Bonneville and the Corps comments on this relicensing.

Dated this 7th day of October 2010.

Respectfully submitted,

/s/ Julee A. Welch (by electronic filing)

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CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Commission in the above captioned proceeding.

Dated this 7th day of October 2010.

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