

Federal Energy Regulatory Commission (FERC) Dam Re-licensing

Ecology's role in the process

Q: What is FERC re-licensing?

A: Utility-owned hydroelectric dams in the United States are under the jurisdiction of the Federal Energy Regulatory Commission (FERC). Although rivers are owned by the public, licenses can be obtained by individuals, companies, and public utilities for the privilege of operating a private hydropower dam on the river. It is FERC's responsibility to issue licenses for these facilities and determine license conditions. These licenses have conditions that require safe operation, environmental protection, and resource improvement.

Hydropower dams licenses are issued for a long period of time, from 30-50 years. When a hydropower dam license expires, the dam owner must renew it through a complex, administrative process known as re-licensing. Through this process, FERC considers again whether it is appropriate to commit the public's river resources for power generation.

Q: Is FERC required to take the environment into account when considering re-licensing?

A: Yes. The Federal Power Act requires FERC to balance competing interests when licensing hydropower projects. FERC is now required to consider not only the power generation potential of a river, but also to give equal consideration to energy conservation, protection of fish and wildlife, protection of recreational opportunities, and preservation of other aspects of environmental quality.

Q: Has FERC re-licensing been done before?

A: Yes. In Washington, many of our dams were originally built and licensed 30-65 years ago. Since 1990, 21 of our dams with expired licenses have been re-licensed.

MORE INFORMATION

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Q: How many dams in Washington State are up for re-licensing?

A: Seventeen dams in Washington are going through the process of being re-licensed as of the beginning of 2008.

Q: Where are the FERC offices located?

A: FERC issues hydroelectric dam licenses out of their headquarters offices in Washington D.C. FERC provides additional assistance to Washington state re-licensing efforts out of its Portland office.

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Q: How is re-licensing done?

A: The following are the simplified steps:

Step 1: Five years before the hydropower license expiration date, the dam owner files a notice of intent to seek a new license. The dam owner consults with federal, state, local government and tribal resource agencies, non governmental organizations, and interested individuals about project design, studies, and alternatives.

Step 2: Over several years, the dam owner conducts the studies needed for the re-license application and prepares a draft application. Resource agencies and others are involved in reviewing and refining these studies so that adequate information is available to make regulatory decisions.

Step 3: Two years before the license expiration date, the dam owner submits an application for a new license. At about the same time, the dam owner also requests a 401 water quality certification from the Department of Ecology (see below).

Step 4: FERC publishes notice that the application is ready for an environmental analysis. FERC conducts a public scoping process to identify environmental alternatives to study. FERC prepares a draft scoping document, holds public hearings and requests comment, and releases a final scoping document.

Step 5: FERC prepares a draft Environmental Assessment (EA) or Environmental Impact Statement (EIS) describing various proposed methods of operation for each area of concern, listing environmental impacts of each alternative operating scenario and identifying a preferred alternative. If a draft EIS is prepared, FERC holds a public hearing.

Step 6: If FERC intends to disregard any fish and wildlife license terms and conditions recommended by resource agencies, FERC convenes a meeting with the resource agencies to discuss the disputed conditions. FERC and agencies seek to resolve differences between their recommendations.

Step 7: FERC staff issues a final EA or EIS along with its decision on re-licensing, i.e., whether a new license is issued and with what conditions.

Step 8: FERC consults with federal fish and wildlife agencies if there are any endangered species concerns.

Step 9: FERC issues a new license.

Q: In what ways do dams affect fish?

A: Hydropower dams and facilities have had profound effects on river systems and aquatic life. By altering flows they change the chemistry and habitat. Dams change water levels in reservoirs. They change the timing, frequency, and duration of stream flows. They block the movement of fish both upstream and downstream. Dams change the food chain biology, and change where and how aquatic creatures live.

Q: In what ways do dams affect water quality?

A: Dams mostly affect water quality by changing flows. Stopping flows by creating a reservoir allows sediments to accumulate; still water in a reservoir can change temperatures, oxygen levels, and the amounts of phosphorous and other nutrients that are available, sometimes causing algae blooms. Cold water at the bottom of a reservoir may have little oxygen. Warm water at the surface is great for summer recreation but not so good for cold-water aquatic life like salmon.

Drawing down reservoirs can cause erosion and turbidity. The way a dam releases water out of a reservoir affects flows and water quality. Temperature and dissolved-oxygen levels are influenced in this way, as well as turbidity and total dissolved gas super-saturation. Super-saturation of the water with air can happen when air gets pressurized as it goes through or over a dam. The resulting water creates air bubbles that can harm fish.

Dam flows also affect recreation and aesthetics.

Hydropower dams are electricity production facilities located in the middle of rivers. Oils and other potentially toxic products that are used throughout the dams can pollute the water if they are not carefully contained.

Q: How is the state of Washington involved in the re-licensing process?

A: Re-licensing provides the opportunity for the state and federal agencies to recommend and require improvements to Washington's public resources including good water quality, fishery resources, and recreation.

The Department of Ecology certifies that state water quality standards will be met. This is done through section 401 of the Clean Water Act, also known as a “401 water quality certification.” Ecology works with the applicant, fish and wildlife agencies, tribes, and others to ensure water quality standards are being met and that flow levels are adequate. The conditions set in a 401 water quality certification are adopted into the federal FERC license.

Ecology has one year to make a decision after receiving a request for a 401 water quality certification. If the applicant has not provided enough information during the one year timeframe they are usually asked by Ecology to withdraw their application and reapply, which provides Ecology and the applicant an additional year to gather information and make a decision. FERC cannot issue a new license until Ecology issues a 401 water quality certification.

The Washington Department of Fish and Wildlife negotiates with the dam owner to protect fish and wildlife. Their recommendations to FERC may or may not be incorporated into the final license. Department of Fish and Wildlife also works with Ecology to establish 401 water quality certification conditions for flows that will support fish and wildlife uses of the river.

Q: What does the state do to protect the public’s interests during re-licensing?

A: The re-licensing of a dam allows the appropriate state and federal agencies to review the project as if it were brand new. The state recommends or requires that the dam owners reduce or eliminate harm caused by their dam.

The state can:

- Participate in the identification and development of studies necessary to evaluate environmental effects of the dam.
- Specify improvements and restoration for salmon and other aquatic creatures. Improvements can include fish ladders, hatcheries, fish-friendly flows, and habitat restoration and acquisition.
- Collaborate with all interested parties toward a settlement agreement, if appropriate.
- Encourage dam owners with more than one dam on a river to participate in studies at the watershed level. An example would be water quality improvement projects, sometimes called Total Maximum Daily Load (TDML) studies that are conducted by Ecology.
- Object to a project that negatively affects coastal resources.
- Recommend that fish and wildlife protection measures are included in a new license.
- Encourage licensees to begin improvements if re-licensing proceedings take longer than expected.