



**House  
Legislative  
Analysis  
Section**

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**HYDROELECTRIC POWER  
GENERATOR**

**House Bill 4784 as passed by the House  
Second Analysis (10-25-96)**

**Sponsor: Rep. Susan Munsell  
Committee: Conservation, Environment  
and Great Lakes**

***THE APPARENT PROBLEM:***

Currently, the state's hydroelectric dams, or hydroelectric power generating facilities, are regulated by both state and federal agencies. Under Section 401 of Title IV of the federal Water Pollution Control Act, commonly known as the "Clean Water Act," the Department of Environmental Quality (DEQ) must first issue a water quality certificate, or "401 certificate," before the Federal Energy Regulatory Commission (FERC) issues a license for a hydroelectric dam. If the department fails to issue a water quality certificate -- which is required to ensure that a river is unpolluted -- within one year, the FERC waives the certification requirement. However, if the department denies certification, then the applicant must reapply, and the one-year period starts anew. Owners of small hydroelectric dams maintain that license applications are often held up for years by the DEQ's failure to issue these certificates within an appropriate period of time. Further, they maintain that the DEQ has increased the number of aquatic, biological, hydrogeological, and geological studies required of license applicants, to the extent that small hydroelectric projects are becoming economically unfeasible. At present, there are no provisions in the Natural Resources and Environmental Protection Act specifying the procedures under which hydroelectric dams are to be regulated. However, legislation has been proposed that would restrict the state's regulation of certain smaller hydroelectric projects -- those with 35 feet or less of dam head and hydroelectric power generating facilities of three megawatts or less, including municipally-owned dams.

***THE CONTENT OF THE BILL:***

House Bill 4784 would amend the Natural Resources and Environmental Protection Act (MCL 324.3106b) to limit the state's regulation of hydroelectric dams, or "hydroelectric power generating projects." Under the bill, the Department of Environmental Quality (DEQ) and the Department of Natural Resources (DNR) would be

required to work cooperatively to review and analyze all water quality and fisheries impact data or studies, which, before the effective date of the bill, had been conducted at hydroelectric power generating facilities in this state, and in other states or countries, if both departments agreed that such data was pertinent. The bill would specify that the purpose of the review and analysis would be to determine if inferences regarding water quality and fisheries impacts from hydroelectric power generating facilities could be utilized at other sites to eliminate or limit the need for comprehensive, site-specific studies in the state.

Under the bill, the owners and operators of hydroelectric dams would have to conduct certain facility assessments in order to demonstrate compliance with state water quality standards. However, the owner or operator of a dam could obtain a ten-year reprieve from the requirement that certain tests be conducted and that fish protection mechanisms be installed by establishing a fund to serve as an escrow account to cover the expenses involved in conducting facility assessments. In addition, the bill would provide a "grandfather" clause for a facility that was regulated by the Public Service Commission (PSC), or that -- before the effective date of the bill -- had entered into an agreement with the DNR regarding mitigation or had obtained a water quality certificate, which would be defined under the bill to mean a certificate issued under Section 401 of Title IV of the federal Water Pollution Control Act.

**Definitions.** A "small hydroelectric power generating project," or "project," would be defined under the bill to mean a hydroelectric project that was in existence on the effective date of the bill, and that satisfied one or more of the following requirements:

- The project was exempt from federal licensure under the Federal Energy Regulatory Commission's (FERC) regulations under the Federal Power Act.

House Bill 4784 (10-25-96)

- The project was required to obtain a water quality certificate under the Federal Power Act after the effective date of the bill, had a dam head of 35 feet or less, and had a generating capacity of three megawatts of power or less.
- The project was owned by a local unit of government.
- The project's revenue per kilowatt was less than 55 percent of the average revenue received by the other dams that qualified as "small hydroelectric power generating projects" under the criteria above.

The definition of "small hydroelectric generating project" would not apply to a hydropower facility regulated as a public utility by the PSC, nor a hydropower project that had obtained a water quality certificate or had entered into an agreement with the DNR regarding mitigation before the effective date of the bill.

**Certification Requirements.** The bill establishes the conditions for receiving a water quality certificate. The bill would specify that a test or study that had been completed in compliance with the statutes, regulations, or guidelines that were in effect at that time would not have to be repeated. In all other cases, the DEQ would have to issue a water quality certificate to a small hydroelectric generating project that had demonstrated compliance with state water quality standards by completing the obligatory facility assessments. The bill would also specify that the requisite facility assessments, with respect to water quality and fish turbine entrainment and mortality, would be limited to the following:

- For fish and sediment contamination testing: one analysis of fish for priority contaminants and one analysis of sediments for priority contaminants before receiving a water quality certificate; and -- after receiving a water quality certificate -- an analysis of fish for priority contaminants no more frequently than once every five years and analysis of sediments for priority contaminants no more frequently than once every ten years, unless previous analysis indicated unusual contaminant problems.
- Water chemistry testing: for one full year, unless field conditions were unrepresentative or test results were unreliable, before receiving a water quality certificate; and -- after receiving a water quality certificate -- not more often than once every five years.
- Temperature and dissolved oxygen testing: continuously between May 15 and October 15 of one year for dissolved oxygen, unless field conditions were unrepresentative or test results were unreliable, and continuously for one full year for temperature before receiving a water quality certificate; and -- after receiving

a water quality certificate -- only if the DEQ determines, after reviewing and analyzing all water quality and fisheries impact data or studies that were conducted at hydroelectric power generating facilities before the effective date of the bill, or facility-specific information, that monitoring is warranted.

- Fish entrainment and mortality assessment: as requested by the DNR, unless the small hydroelectric generating facility established a fund in compliance with the provisions of the bill.

**Exceptions.** If the owner or operator of a dam elected to establish and maintain a fund, then the installation of fish protection mechanisms and fish entrainment or mortality studies would not be required by the DNR for the ten-year period following the initial deposit in the fund. The owner or operator would be required to make an initial deposit to establish the fund, and annual deposits thereafter on or before the anniversary of the initial deposit. Each deposit would have to be in an amount equal to ½ mill (\$.0005) per kilowatt hour generated by the project in the preceding calendar year. An initial deposit for a project would be considered timely if it satisfied one of the following requirements, as applicable:

- The deposit was made no later than six months after the effective date of the bill, unless an exemption from FERC licensure had been obtained.
- The deposit was made before an exemption from FERC licensure was issued or renewed. (*Note:* This provision would apply if the exemption occurred more than six months after the bill's effective date.)

**Expenditures From a Fund.** Expenditures from a fund would be limited as follows:

- After the tenth anniversary of the initial deposit in the fund, the DNR could not require that the owner or operator expend more than the balance of the fund when the expenditure was made. However, the DEQ would be permitted to require, once, that the owner or operator expend an amount that was greater than the balance of the fund, provided that the expenditure did not exceed one-third of the project's gross annual operating revenue, based on the average of the last three years of operation.
- If, upon the tenth anniversary of the initial deposit in the fund, effective fish protection measures were not available or could not be financed, the fund could be utilized to retire generating equipment and to provide for long-term maintenance or dam removal, or for other purposes, as agreed upon between the owner or operator and the DNR.

The owner or operator of the project would make investment decisions regarding a fund, and would file a report of the fund balance with the DNR before February 1st of each year. Should a fund balance not reflect the full amount of money required to be annually deposited in the fund, the owner or operator would, upon the DNR's request, restore full funding to the fund.

**Appeals.** An owner or operator of a facility could appeal an action or inaction of the DEQ or any other department or entity of the state to which authority regarding review or issuance of water quality certification for hydroelectric power generating facilities was delegated under the provisions of the bill, and the dispute would be treated as a contested case hearing under the Administrative Procedures Act.

### **FISCAL IMPLICATIONS:**

According to the House Fiscal Agency (HFA), the provisions of the bill would result in an indeterminate increase in state costs. The HFA notes that the Federal Energy Regulatory Commission requires documentation in support of any relicensing applications submitted by hydroelectric dam owners. However, if the Department of Environmental Quality (DEQ) were to conduct its own evaluation of a dam license renewal application, staff and fiscal resources would have to be diverted from other areas. The HFA estimates that no increase would be required in the DEQ's annual appropriation, and that it is unlikely that the studies required under the bill would have an impact on other land and water management programs.

The HFA also notes that the fiscal year 1996-97 appropriation for the Department of Natural Resources (DNR) requires that the Fisheries Division pay for the cost of special studies to document the impact of relicensure applications if House Bill 5784 is not enacted. (10-18-96)

### **ARGUMENTS:**

#### **For:**

It is generally recognized that hydroelectric power generating facilities provide a stable source of energy, power that is a primary source of renewable energy, recreational opportunities, and flood control. However, as is the situation with many environmental regulations that affect the cost of doing business in the state, many feel that the requirements for small hydroelectric dams to obtain the water quality certificates issued under Title IV of the federal Water Pollution Control Act are needlessly excessive. Some feel, too, that the power granted the Department of Environmental Quality (DEQ) to require studies from dam owners is too broad. In

fact, the U.S. Supreme Court expanded the states' power to use the water quality certification process to address other issues in *PUD No. 1 v. Washington Department of Ecology*, (115 S.Ct. 1900 [1994]). This means that the state may place certain conditions on a water quality permit to require that the Federal Energy Regulatory Commission (FERC) increase the number of studies required from a hydroelectric project for licensure.

The provisions of the bill would recognize that small hydroelectric dams -- those with 35 feet or less of dam head and generating facilities of three megawatts or less, including municipally-owned dams -- are different in nature from larger dams, and that fewer water quality studies should be required, since these facilities have only a minimal environmental impact on rivers. Specifically, the bill would establish a balanced process by simplifying the procedures to be followed when a hydroelectric facility applies for a water quality certificate, and by providing for an appeals process in situations where the Department of Environmental Quality or any other department denies an application or fails to act in a timely manner. In addition, the bill would allow a small hydroelectric facility to establish a fund to help to defray the expense of performing certain studies.

#### **Against:**

Due to the potential for dams to harm the state's natural resources, the Department of Environmental Quality should have broad powers to regulate them. According to a lengthy *Michigan Natural Resources Magazine* article in its November/December, 1993 issue, dams eliminate the spawning habitat of fish by flooding critical areas and by preventing fish migration to upstream spawning grounds. The article goes on to report that, until the Federal Power Act was amended in 1986 to require that the Federal Energy Regulatory Commission (FERC) balance environmental concerns with electric power production when licensing hydroelectric facilities, the environmental impact of these facilities was given little consideration. Now, however, according to the article, the review process required before licenses can be issued "presents natural resource managers with an opportunity to have a real say in the future of our state's rivers well into the next century."

Conservation and environmental groups agree that hydroelectric dams hamper the natural migration patterns of fish, and stress the importance of preserving the rights of the state and its citizens to maintain water quality standards. The Michigan Hydro Relicensing Coalition -- an alliance of statewide conservation and environmental organizations that includes the Michigan United Conservation Clubs, Trout Unlimited, and the Federation of Fly Fishers and Anglers of the Au Sable -- notes in a September 26, 1995 letter to the House Committee on

Conservation, Environment, and Great Lakes that "dams create a warming of the water held in impoundments and degrade important oxygen levels within the water." In a separate letter, dated September 25, 1995, the Michigan Council of Trout Unlimited says that "we cannot use a 'cookie cutter' approach to deciding which studies to require . . . since dams have impacts that are highly site specific. What might work well at one site could be harmful at another."

**POSITIONS:**

The Michigan Hydro Association supports the bill. (10-23-96)

The Michigan Municipal League supports the bill. (10-22-96)

The Michigan Municipal Electric Association supports the bill. (10-22-96)

The Wolverine Power Corporation supports the bill. (10-23-96)

The National Federation of Independent Business (NFIB) supports the bill. (10-23-96)

The Department of Environmental Quality (DEQ) opposes the bill. (10-23-96)

Analyst: R. Young

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■ This analysis was prepared by nonpartisan House staff for use by House members in their deliberations, and does not constitute an official statement of legislative intent.