UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C.

110660

FOR RELEASE ON DELIVERY
Expected at 9:30 a.m. EST
October 19, 1979

STATEMENT OF
DOUGLAS L. McCULLOUGH, DEPUTY DIRECTOR,
ENERGY AND MINERALS DIVISION
BEFORE THE
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE
HOUSE OF REPRESENTATIVES

contact 6A00140

Mr. Chairman:

[discussion of]

We appreciate your invitation to discuss H.R. 3508, the Pacific Northwest Electric Power Planning and Conservation Act. We previously testified on this legislation on September 19, 1978. More recently, at your request, we issued a report on a number of questions relating to the proposed legislation. The questions centered around three primary issues:

--Could the legislation expose regional power consumers to more rate increases from construction cost overruns on non-Federal power plants backed by Bonneville?

--How would passage or failure of the legislation impact on Bonneville's direct service industrial customers?

--How would the legislation impact on runs of salmon and steelhead trout in the Columbia River system?

My statement will briefly focus on these three primary issues.

Testimony 007534

CONSUMER EXPOSURE TO COST OVERRUNS
ON NON-FEDERAL POWERPLANTS

The answer to the first question is, "yes, the bill could increase consumer exposure to cost overruns on non-Federal powerplants."

Through net-billing agreements executed in 1971 and 1973, Bonneville acquired the production capabilities of three nuclear powerplants to be constructed and operated by the Washington Public Power Supply System (the Supply System), an agent of numerous publicly-owned utilities in the region. Bonneville--and therefore its customers--has the ultimate responsibility for payment of all costs associated with two plants and 70 percent of the costs associated with the third plant. To protect its customers from unnecessary rate increases, it is important for Bonneville to assure that the Supply System constructs these nuclear powerplants as efficiently as possible.

All three of the powerplants have experienced very substantial delays and cost overruns. Each project is more than 3 years behind schedule, and each has experienced cost overruns exceeding $1 billion. Bonneville plans a series of rate increases, starting with a 90 percent increase in December 1979, to help meet the costs of its net-billed plants and planned additions to the Federal hydropower system.

We reviewed the methods used by Bonneville to (1) contract for the net-billed plants' capability, and (2) oversee the schedule and cost of plant construction. We found that

--Bonneville's agreements with the Supply System do not provide adequate financial protection for regional consumers obligated to pay for the nuclear powerplants. The agreements do not assure full Bonneville participation in the decision-making process but only allow Bonneville to monitor and evaluate the Supply System's actions;

--Bonneville's oversight efforts are hindered by staffing weaknesses. At the time of our review only five of Bonneville's 800 professionals were overseeing the nuclear construction program with none of the five having previous experience with nuclear construction projects. Until recently, Bonneville management has not tried to strengthen its oversight role, even though Bonneville's customers will ultimately pay for most plant costs.

We doubt that Bonneville is adequately prepared at this time to construct or oversee the construction of large generating facilities. We also realize that legislation cannot totally protect Bonneville's customers from the financial risks of developing additional energy sources. What can

be done, however, is to minimze these risks by taking legislative steps to assure (1) that Bonneville's contracting and oversight practices are strengthened to reduce consumer exposure to costly delays and overruns, (2) additional energy sources are diversified and developed only when they are judged necessary by a representative power planning body, and (3) the most cost effective and least capital intensive energy sources are developed first. In addition, we recommend that the Committee consider amending the proposed legislation to limit (1) the extent to which Bonneville can participate in constructing large power plants or (2) the construction costs which Bonneville can pass on to its customers.

POSSIBLE IMPACTS ON BONNEVILLE'S INDUSTRIAL CUSTOMERS

The second question concerns how passage or failure of H.R. 3508 would impact on Bonneville's direct service industrial customers.

In 1978, direct service industrial customers (DSIs), purchased one-third of Bonneville's power at slightly over three mills per kilowatt-hour. The ages of the DSI plants vary widely, but most were constructed in the 1940s and 1950s. The potential for conserving electricity by modernizing production facilities in some DSI plants may be significant and should be capitalized on to the maximum extent practical.

The power sold to industrial customers can be interrupted by Bonneville under certain conditions. This, in effect, provides Bonneville with system reserves, which in other power systems are usually provided by standby generating equipment, contractual arrangements with neighboring utility systems, or other means. Bonneville grants discounts or credits when it interrupts the industrial power.

Because the first 25 percent of the DSI load can be interrupted by Bonneville at any time for any reason, it could serve as a valuable operating reserve to meet various short term power needs. However, Bonneville's rates allow the DSIs expensive credits for power interruptions that tend to preclude this flexibility. Because of these credit provisions, Bonneville power schedulers are reluctant to interrupt the DSI's loads. Furthermore, Bonneville has conducted no studies to determine whether interruptible power sales provide the most effective and economical method of securing system reserves.

H.R. 3508 would provide the DSIs an opportunity to obtain new long term contracts from Bonneville at substantially higher prices. Absent passage of this bill, the DSIs will continue to receive Bonneville power until their present contracts expire during the 10-year period starting in 1981 and ending in 1991. They will then have to seek power supplies from other sources and Bonneville will need to

provide system reserves in a different manner. Options available to the DSIs include purchasing power from local utilities and bulk suppliers such as the Supply System, developing their own power supplies, or closing operations in the Pacific Northwest and locating elsewhere. Whether the legislation passes or not, industrial customers will be facing higher power costs. However, the increased power costs are unlikely to cause the industry to relocate.

Before Bonneville is authorized to offer the industrial customers new long term contracts, we believe the bill should be amended to assure industrial conservation of electricity and development of optimal system reserves.

POSSIBLE IMPACTS ON FISH RUNS

The third issue centers on how H.R. 3508 would impact on salmon and steelhead runs.

The bill contains no provisions to reverse the cumulative adverse impact of multi-purpose dams on these fisheries. After many years of fragmented management and untimely mitigation efforts the upper river fisheries are in serious trouble. Studies are underway to determine whether some fish runs should be proposed for listing as threatened or endangered species.

While several factors have contributed to the decline of the fish runs, a major problem is failure to adequately mitigate the adverse effects of dams constructed and operated

by Federal agencies and electric utilities. The hazards created by dams are critical because they greatly impact on the all-important migration process.

Although larger numbers of young fish, or juveniles, are produced in hatcheries and natural spawning grounds, many are killed when they migrate to the sea in the Spring of each year. This occurs because the main-stem Columbia system is now so developed that (1) most river flows are passed through hydroelectric turbines, and (2) the main-stem waterways have been changed from free-flowing rivers to a series of slow moving reservoirs which retards the juveniles' passage, increases their exposure to predators, and causes some to cease their migration. Depending on river flows, juvenile losses from all causes average an estimated 15 to 20 percent at each main-stem dam and reservoir.

Efforts to preserve the fish runs are conducted under various authorities by a variety of Federal, State and Indian organizations. We identified 16 organizations which impact on the salmon and steelhead fisheries. But there is no formally organized body that exercises a comprehensive management function over water resource uses in the Columbia basin.

Fishery maintenance or enhancement is not an authorized purpose of the Columbia system dams. Consequently, fishery officials must seek the voluntary cooperation of Bonneville

and the dam operators. Voluntary cooperation in low-water years has prevented extinction of the upper river runs, but has not reversed the decline in some stocks.

This bill can be an effective vehicle for restoring the fish runs. We believe it should be amended to encourage (1) consolidation of the fragmented management efforts, (2) installation of improved facilities for fish passage, and (3) the establishment of minimum streamflows.

This concludes my statement, Mr. Chairman. I will be happy to answer any questions.