

JAN 22 1991

**BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION**

**IN THE MATTER OF THE APPLICATION )  
OF IDAHO POWER COMPANY FOR AUTHO- )  
RITY TO RATEBASE THE INVESTMENT )  
REQUIRED FOR THE REBUILD OF THE )  
SWAN FALLS HYDROELECTRIC FACILITY )**

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**CASE NO. IPC-E-90-2****ORDER NO. 23520****APPEARANCES**

For the Applicant Idaho Power Company: Larry D. Ripley, Evans, Keane, Koontz, Boyd, Simko & Ripley, Idaho First Plaza--Suite 1701, 101 South Capital Boulevard, Boise, Idaho 83702.

For the Commission Staff: Michael S. Gilmore, Deputy Attorney General, Idaho Public Utilities Commission, Statehouse, Boise, Idaho 83720.

For the Intervenor Industrial Customers of Idaho Power (ICIP): Peter J. Richardson, Davis Wright Tremaine, 400 Jefferson Place, 350 North 9th Street, Boise, Idaho 83702.

For the Intervenor Idaho Consumer Affairs, Inc. (ICA): Harold C. Miles, 316 15th Avenue South, Nampa, Idaho 83651.

**SUMMARY**

By this Order we authorize Idaho Power Company to rebuild the Swan Falls hydroelectric facility. We accept its offer of a cap for the cost of the rebuild that can be passed on to ratepayers. We further recognize that, in the ordinary course of events, the Company will be allowed to recover in its revenue requirement its prudently incurred investment and expenses of the Swan Falls rebuild.

**I. INTRODUCTION**

This case was initiated by Idaho Power's application for authority to ratebase the investment required for its rebuild of the Swan Falls hydroelectric project. In its application Idaho Power offered to cap the rate base that it would request from the Commission for rebuild of the Swan Falls project at \$80,285,000, subject to certain contingencies.

Idaho Power is an investor-owned electric utility subject to this Commission's regulatory authority. It provides service to retail customers throughout southern Idaho. It serves more customers in Idaho than any other electric utility in the State and has more hydroelectric generation in the State than any other electric utility.

Idaho Power is not required to obtain a certificate of public convenience and necessity in order to reconstruct the Swan Falls project. That is because Idaho Power "may, without such certificate, increase the capacity of [its] existing generating plant[]" at Swan Falls. See *Idaho Code* § 61-526.

Nevertheless, the Company is constrained in its desire that ratepayers pay the cost of rebuilding Swan Falls. On April 24, 1985, this Commission issued Order No. 19623 in Case No. U-1006-240. That Order provided:

We put Idaho Power on explicit notice, however, that before it undertakes any substantial reconstruction or replacement of the Swan Falls facility, other than improvement or reconstruction of the existing spillway, it must first demonstrate to this Commission in a formal proceeding that the project is the least-cost method of acquiring a new resource for its system.

That Order built upon Order No. 19076, issued August 27, 1984, which had initiated Case No. U-1006-240:

We concluded Order No. 18189 [the final order in Case No. U-1006-197, an investigation into Idaho Power's future plans for construction of additional generating capacity and future projections of load] by putting Idaho Power on formal notice that it could no longer expect automatic rate base treatment of construction expenditures that went significantly beyond original cost estimates or that were not competitive with the cost ratepayers would have to pay for power from alternative resources. ...

....

The Company should ... explain the history of its decision to rebuild and expand production of Swan Falls rather than simply to refurbish the existing site, including a narrative of alternative studies the Company performed in deciding that a total rebuild and expansion of the site was the least-cost

alternative. Further, the status of the Company's license and water right at the Swan Falls site should be presented. Finally, a comparison with the cost of power available from alternative resources should be presented to show that the Swan Falls rebuild is consistent with a least-cost energy scenario for Idaho Power ratepayers.

Order No. 22412, issued March 30, 1989, in Case No. IPC-E-89-8, quoted both of the passages above. Idaho Power's application in this proceeding tied back to the Commission's direction in these cases.

On August 22, 1990, a prehearing conference was held on the Swan Falls case and a closely related case, Idaho Power's application for the Milner hydroelectric project (Case No. IPC-E-90-8). Following that conference, the parties submitted written statements of position on legal or jurisdictional issues. Based upon the Commission's review of these statements and other materials in the record, hearing was scheduled for the Swan Falls case immediately following hearing in Milner.

## **II. THE EVIDENTIARY HEARING**

A hearing was held on the Swan Falls case beginning the afternoon of November 28, 1990, and continuing on November 29, 1990. All of the witnesses who testified in the Swan Falls case also testified in Milner, and testimony in the two cases was similar because several issues in the cases were similar. Accordingly, to save time and avoid repetition, the Commission ruled that in the Swan Falls case it would consider those portions of the transcript for the Milner case that were also relevant to the Swan Falls case so the same cross-examination need not be repeated. See Tr. pp. 294-295, Milner.

**A. Idaho Power's Direct Case.** Idaho Power's direct case began with the testimony of Jan Packwood, the Company's Vice President for Power Supply. Packwood testified that the existing 10.4 megawatt powerhouse at Swan Falls would be retired and the existing project redeveloped. The new project will

consist of a new powerhouse containing two generating units with a total rated capacity of 25 megawatts, a switchyard, a new transmission line, and other existing project works. Upon completion, the project will consist of:

- (1) The 25-foot-high, 1,218-foot-long concrete and rock-filled Swan Falls dam;
- (2) The Swan Falls reservoir with a surface area of 900 acres and a total storage capacity of 4,800 acre-feet;
- (3) A spill-way with crest elevation of 2,300 feet above mean sea-level with 12 bays, each provided with radial gates 31 feet wide and 14.5 feet high;
- (4) A powerhouse at the east abutment of the Swan Falls dam containing two identical horizontal bit turbine-generating units, each with a rated capacity of 12.5 megawatts;
- (5) A substation located on the upper deck of the powerhouse, equipped with a 13.8/138-kilovolt (kv), 30,000 kv ampere, 3-phase transformer;
- (6) A 1,400-foot-long, 120-foot-wide (bottom width) tail race;
- (7) A 1.2-mile-long, 138-kv transmission line connecting to an existing 138-kv transmission line owned and operated by the licensee; and
- (8) Appurtenant facilities.

Tr. pp. 28-30.

Packwood explained that the Federal Energy Regulatory Commission (FERC) has relicensed the project. The Company's original license for Swan Falls expired June 30, 1970. Idaho Power operated on annual license renewals until the project was relicensed on December 22, 1982. That license provided for a complete rebuild and up-rate of the project to 25 megawatts, with an expiration date of June 30, 2010. Idaho Power postponed the rebuild of the project in January 1985 until additional capacity would be needed. On April 30, 1987, FERC deleted Idaho Power's authorization for that additional capacity and reduced the license period by ten years to June 30, 2000. In January of 1989

a safety and operational report indicated that the old power plant facility needed to be replaced by the year 1994. In response, Idaho Power applied to amend the license and again requested authority to rebuild the project. By its order reauthorizing the rebuild, FERC then granted a full 40-year license that will expire June 30, 2010. In addition, the Portland regional office of FERC has rated the current Swan Falls facility as having a high downstream hazard potential. Tr. pp. 30-31.

Packwood stated that the Company's existing water rights at Swan Falls are defined in the Swan Falls Agreement between the State of Idaho and Idaho Power. The Company has an unsubordinated right to 3,900 cubic feet per second (cfs) in the summer and 5,600 cfs in the winter, as measured at the Murphy gauge a mile or two downstream from Swan Falls. The Company's water rights above these levels are subject to subordination to new depletionary uses. The unsubordinated rights have a priority of 1919 or earlier; the identical minimum stream flows in the State Water Plan carry a priority of the mid-1980s, when the Plan took effect. However, the Swan Falls Agreement contemplates that the State of Idaho will assert Idaho Power's rights as necessary to protect the minimum flows established by the agreement. To protect those flows, the Swan Falls project must remain in existence. Tr. pp. 32-33.

Packwood testified that the Company views its 3,900 cfs summer water right and 5,600 cfs winter water right as far senior to the State Water Plan's identical rights. It is the Company's position that the priority of the water right cannot be preserved if the Company walks away from the Swan Falls dam, and that is an important reason for the rebuild. Tr. pp. 56-57.

Packwood maintained that protection of Swan Falls' flows is of great importance to the Company because Idaho Power's water rights at the Hells

Canyon complex are subordinated to upstream depletion. There is little exposure to major depletions between Swan Falls and the Hells Canyon complex, so protecting the Company's water rights at Swan Falls has the effect of assuring a water supply at the Hells Canyon plants downstream. Furthermore, in order to meet these minimum flows at Murphy, water must flow through some of the upstream dams as well. Tr. 33.

Packwood explained Idaho Power's estimates of the construction costs for Swan Falls. The FERC license application estimate is prepared on the basis of preliminary layouts without final design or precise calculation of required materials such as concrete, fill dirt, etc. The Commission, however, has stated the Company must provide a more accurate cost estimate. The Company is in a position to make a "commitment estimate" after completion of design and solicitation of bids for turbines and generators. This commitment estimate and the additional 25% contingency in the application establish a cost ceiling for the project that is the basis for the Company's proposal, with certain exceptions, to absorb all costs of the project above a certain level. The Company's total commitment estimate in its Exh. 3 (\$80,285,000) represents estimated costs of the various components of the project of \$64,228,000 plus a 25% contingency. However, this commitment estimate could be increased to account for documented changes in escalation rates or scope. In particular, (1) *force majeure* or acts of God, (2) design optimization changes for increasing energy that more than offset the increase in initial investment, and (3) foundation or site conditions significantly more expensive than indicated by the Company's exploratory drilling would be reasons for going above the ceiling. Tr. pp. 35-36. Furthermore, the \$64,228,000 cost estimate excludes removal costs of \$804,000.

Packwood explained that the Company's estimates for Swan Falls contain contingencies for each component going into the total, and then a 25% contingency for the sum of the components (each of which includes the component's 15% contingency.) Tr. pp. 51-52. Packwood compared the 25% contingency cap built into the estimate for Swan Falls with the 5% cap for Milner. Milner's is smaller because its design and procurement process is further along and a number of uncertainties have been removed by the actual award of bids and contracts, but Swan Falls is in a more preliminary stage. The biggest unknown for Swan Falls is the state of the site under the old powerhouse, which is also the site of the new powerhouse. The Company does not know what underlies the bed of the river and must build considerable contingency into its figures. Tr. pp. 54-55.

Packwood testified that Idaho Power intends to complete its construction of the Swan Falls rebuild by January 31, 1994. The reconstructed facility would be added to the Company's ratebase after its completion. The project will be integral to Idaho Power's development of its hydroelectric system, will be used to serve retail and firm wholesale load, and is integral to retention of the Company's water resources. Furthermore, the project is non-deferrable because the physical state of the plant requires current reconstruction and rehabilitation. Tr. pp. 36-37.

Packwood explained that it was impractical to renovate the old power house so it could be used for peaking purposes. The 50-year old equipment has antique control systems, and there is a limited flow that could pass through those turbines, so the Company's dam stabilization strategy requires removal of that portion of the dam. Tr. pp. 47-48. Much of the electrical equipment installed in the plant was installed within twenty years of the invention of the electric utility

industry. The insulation is on the verge of turning to dust. There are concrete deterioration problems. Falling efficiencies, increasing O&M costs, etc., describe a plant that is worn out. Tr. pp. 57-58. Packwood had no idea what it would cost to refurbish the existing plant, but everything of note would have to be replaced inside. Tr. pp. 58-59. To continue to generate at Swan Falls, the Company would need to spend a certain amount of money regardless, so it is not fair to characterize the entire expense of the Swan Falls plant as expense of new generation. Tr. pp. 59-60.

Packwood explained the Company's choice of a 25-megawatt plant: Swan Falls is not sized to take 100% of the flows in the river. One can obtain 80% of the benefit quite reasonably, 85% with more cost, but the high 90's are achieved only infrequently and not cost-effectively. Tr. pp. 48-49. Swan Falls has a much higher usage factor than Milner because of its location on the river. There are steady and predictable flows at Swan Falls, so the plant may be designed to use a greater percentage of the flows available than at Milner. Tr. p. 60. The Company had not designed a 35- or 40-megawatt project and settled for a lower capacity because there would only be spillage about 17% of the time under its 25-megawatt design. The benefits gained by reducing that spillage do not justify the additional costs of increasing the generation. Tr. pp. 62-63.

In response to various cross-examinations, Packwood explained: The rebuild does not provide for fish passage; and fish passage would have to be designed and added on if required by regulatory officials. Tr. p. 61. The ratebase cap for the project that Idaho Power offered in its application was voluntary, and it is not the Company's view that significant excesses beyond the Company's commitment estimate for ratemaking purposes are beyond the Commission's



ability to review. That does not mean the Company would not ask for ratebase investment above its offered cap if it encountered unexpected costs, but the Commission would have the opportunity to review those costs. Tr. pp. 67-68, Milner. Otherwise, the Company will absorb the costs in excess of its proposed cap. Tr. p. 68, Milner. Packwood characterized the application's ratebase cap as an attempt to impose a discipline on the Company that it has been accused of lacking. Tr. pp. 81-83, Milner.

Idaho Power's second and last witness was James L. Baggs, the Company's Manager of Rates. Baggs explained that the Company's rates will not be affected while the Swan Falls project is under construction, nor will rates automatically increase when the project is completed; the Company must first apply to include the cost of the project in its rates before they will be recovered from customers. Tr. pp. 74-75. If the Company uses reasonable and prudent construction practices, he believed that all of its investment in the Swan Falls rebuild should be included in its ratebase in the next rate proceeding after the project is completed. Tr. pp. 75-76.

Baggs explained that the Company has never considered proposing ratemaking treatment for the Swan Falls project other than conventional ratebase/rate-of-return ratemaking, even though it had considered other treatment for the Milner project, i.e., the vagaries of the wholesale market. Tr. pp. 83-86. He agreed that the Company is now on notice based upon testimony of ICIP and Staff witnesses that when Swan Falls is completed and proposed for ratebase/rate-of-return treatment, parties may propose non-traditional methods of cost recovery for Swan Falls. Tr. p. 87. The Company is not asking for a dollar commitment of X dollars that could be inserted in the ratebase, but is offering a cap beyond which it would not request ratebase treatment. Tr. pp. 93-94.

Baggs addressed the possibilities of changes in load, changes in technology, and changes in stream flows as things that the Company should monitor during completion of a project, but stated the Company should be entitled to ratebase a project previously authorized so long as it follows reasonable and prudent construction practices. Tr. pp. 148-149, Milner.

Baggs stated that it was the Company's position that the issuance of Commission authority to begin construction was in effect a finding by the Commission that it was reasonable, prudent and in the public interest for Idaho Power to begin construction as proposed, and, if there were any challenges to the Company's conduct, the burden of proof of substantiating the challenge is upon the challenger, not upon the Company. Tr. pp. 176-179, Milner. Costs of construction exceeding the Company's commitment in the application, unless the costs fall in one of the three categories excepted, will be absorbed by the Company. Tr. p. 180, Milner.

On redirect Baggs explained that if there was a period of hyper-inflation and the Company's cost estimates escalated, then the Company would reapply to the Commission for a new cap. If the Commission declined to authorize the cap, the Company would be entitled to recover its sunk costs to that point. Tr. pp. 182-183, Milner.

**B. ICIP's Case.** The Industrial Customers of Idaho Power (ICIP) are an unincorporated association of large industrial consumers of electricity. ICIP's witness was Don Reading, a consulting economist employed by Ben Johnson Associates. Reading did not dispute the importance of Swan Falls water rights to Idaho Power, but stated that they should not be the sole basis for justifying more than \$80 million in reconstruction expenditures and doubling the size of the Swan Falls facility. The reasonable costs that should be passed onto the

ratepayers and the need for the Company to retain its water rights are in many aspects separate issues. Tr. p. 104.

Reading believed that the Company provided little evidence concerning cost effectiveness of the Swan Falls project or showing that the project is a least-cost alternative available to ratepayers. Tr. p. 107. The Company has not shown that reconstruction of Swan Falls is less costly than installation of demand-site management measures, has not explained the rationale for the 25% contingency in its cap (compared to the 5% contingency for Milner), has not justified its rationale for the 25-megawatt size of the Swan Falls project, and has not explained why Swan Falls' cost per kw is \$3,244 while Milner's is \$1,187. Tr. pp. 108-109.

Reading stated that if the Commission grants the Company's request for preapproval for rate base treatment for Swan Falls, it will effectively foreclose its ability to examine the prudence of the Company's decision-making between the time reconstruction begins and the time the project is completed. The Company's management will be unconstrained by changes in load, technological progress, or economic feasibility of the plant. Tr. p. 110. Idaho Power has no right to automatic inclusion of the project in rate base merely on the condition that it follows reasonable and prudent construction practices because that ignores the Company's management obligations in other areas. Tr. pp. 111-112

Reading characterized the Company's proposed cap of a "commitment estimate" as attractive on the surface, but hollow because adjustments for (1) documented changes in escalation rates or scope caused by *force majeure* or acts of God, (2) design optimization for increased energy, and (3) foundation or site conditions significantly more expensive than indicated by exploratory drilling are not covered by the cap. The commitment estimate is therefore not an upper

bound of the project's cost that could be included in rate base. Tr. pp. 114-115. The Company's proposal assigns most of the risk of reconstructing Swan Falls to ratepayers while eliminating most of the risk to stockholders. The only risk faced by stockholders is that the Company would not use reasonable and prudent construction practices, which could result in some of the plant being disallowed if investment exceeded the cap. Tr. pp. 118-119.

Reading contended that reduced equity costs are associated with reduced risk. If the Company's true equity risk for a preapproved plant is 10% (one percent above the risk free cost of capital), the Company's overall equity cost for all of its rate base should be reduced about 25 basis points. Tr. pp. 119-122.

Although Reading believed it is inappropriate to determine ratemaking methods to be used for a plant not yet constructed, he noted that traditional rate base/rate of return regulation is not the only option. For example, the Company's avoided costs could also be considered as a fair rate cap for ratepayers' costs. Fair market value of the plant and the cost of alternative forms of reliable power could also be considered. Tr. pp. 122-125.

Reading summarized his recommendations and conclusions as follows:

- (1) The Commission should reject the Company's proposal for preapproval of rate basing of the Swan Falls project.
- (2) If the Commission adopts the Company's proposal for preapproval, it should reject the Company's application on the grounds that it is deficient.
- (3) If the Commission accepts the Company's proposal, approval should be combined with an adjustment to the Company's cost of equity recognizing the substantial shifting of risk from shareholders to ratepayers.

Tr. pp. 125-128.

Reading did not testify that the Company does not need the facility or that it should not be built; he testified that the application has not shown need, evaluation of alternative resources, etc. Tr. p. 133.

Reading agreed that one should not put blinders on, stack all possible resources according to cost, and then mechanically pull the least cost resource from the stack as the next resource. There are many policy reasons not captured by least cost planning that would counsel choosing a higher cost resource from the stack. However, those reasons must be explained. Tr. pp. 147-148.

Reading agreed that bringing a commitment estimate into the proceeding is an appropriate step in cost containment for new projects, but questioned the scope and inflation exceptions to the commitment estimate. Tr. p. 258, Milner. The Company has excepted much of the risk from its commitment. Tr. p. 261, Milner.

**C. The Commission Staff's Case.** The Commission's Staff's first witness was Thomas Faull, a public utilities engineer. Faull understood the purpose of the proceeding was to determine whether the Swan Falls project concept is sound enough to authorize Idaho Power to proceed with project development, not to determine now whether to grant rate base treatment of unknown future costs. Tr. pp. 155-156. Faull believed that the primary consideration whether the project should be developed is cost-effectiveness, with consideration of other factors being supplementary. Tr. p. 156.

Faull accepted Idaho Power's proposed cap on capital costs of \$80,285,000 as a maximum or worst case cost for his analysis. Tr. pp. 156-157. From that cost, he estimated a 50-year levelized cost to the ratepayers for the project at 7.305¢/kilowatt hour (kwh). His analysis was only slightly sensitive to the number of years of useful life chosen, yielding an average cost of 7.257¢/kwh for 60 years and 7.388¢/kwh for 40 years. Tr. p. 157. He rejected the 17-year life of the remaining time on the FERC license (which yielded 8.472¢/kwh) on the ground that it is reasonable to believe that Idaho Power will obtain economic

benefits from the plant at the expiration of the license in the year 2010. Tr. pp. 157-158.

According to Order No. 23357 recently setting Idaho Power's avoided cost rates, the maximum avoided cost rate payable to qualifying facilities purchasing from Idaho Power coming on line in 1993 was 6.144¢/kwh. Faull contended his calculation of 7.305¢/kwh shows that Swan Falls is cost-effective for Idaho Power's ratepayers as compared to avoided costs for three reasons: there is a mathematical error in that Order's avoided cost calculation that will lower it to 5.917¢/kwh; 0.878¢/kwh of that figure will be adjusted in the future based on operating costs of the Colstrip generating plant, which would yield a 6.477¢/kwh rate if 20 years of coal escalation were included in the number; and the 20-year rate must be scaled up to a 50-year rate for a true comparison. Tr. pp. 161-163. Changing the variables underlying calculation of the 20-year rate to those underlying calculation of the 50-year rate yields an avoided cost of 7.054¢/kwh, which after seasonal weighting is taken into account drops slightly to 6.948¢/kwh. This is within 5.2% of his estimate of Swan Falls' cost of 7.305¢/kwh, which means that the Swan Falls plant is approximately cost-effective. Tr. pp. 162-163.

Even though Faull discussed the Swan Falls plant as though Idaho Power could avoid all costs of the project by simply walking away from it, he believed that if Idaho Power were to abandon the Swan Falls site, it would be required to return the site and reservoir area to a condition approximating natural conditions. This would be expensive and make abandonment impractical. If walking away were the only alternative to the proposed upgrade, restoration costs would have to be subtracted from the upgrade construction costs for avoided cost analysis because they would not be avoidable. However, these

costs could be avoided by selecting a different alternative to Idaho Power's proposed Swan Falls upgrade. Tr. pp. 164-165. Faull would not consider Swan Falls cost-effective compared to 20-year avoided cost rates in effect before Order No. 23357. Tr. p. 166. Further, the Commission could impute additional conservation or demand-side resources to Idaho Power in evaluating the need for a supply-side resources, which would make the project less attractive. Tr. p. 167.

Faull did not believe Idaho Power made the same level of project optimizing effort that one would find in a QF development. He believed the project is undersized for flows at the site because it has an overall average capacity factor of 72% while the standard for the industry is typically between 45% and 65%; there is uncertainty whether historic flows at Swan Falls will continue in the future. Tr. pp. 170-171. By contrast, Milner has a capacity factor of 35%. Tr. p. 171.

In summary, Faull recommended that the Commission find the Swan Falls plant concept competitive enough for costs incurred in developing the project to be potentially reasonable for future ratemaking consideration, with a specific warning that costs in excess of the appropriate comparable avoided cost rates are, by definition, imprudently incurred. He further recommended the Commission advise Idaho Power that approval to build the project does not imply that costs incurred in developing the project are necessarily prudent, but they will be reviewed at a later date like all other costs. Tr. pp. 176-177.

In answer to various cross-examinations, Faull stated: He did not believe that the proposed Swan Falls investment of \$3,000/kw for a project with a 22-foot net head is unreasonably excessive; it is within the range one would expect. Tr. p. 184. The Company's commitment to acquire the resource at costs exceeding its recommended reasonable cost for new resources appeared to be

imprudent; the Company was recommending the cost for new resources be under 5¢/kwh. Tr. pp. 324-325, Milner. Idaho Power's recent experimental programs have shown that there are conservation resources available in the State for substantially less than avoided costs of 5¢/kwh; i.e., conservation (demand-side) management resources are available for approximately 2-2½¢/kwh. Tr. p. 331, Milner. There are probably no firm off-system purchases available for 50 years at any rate, however. Tr. p. 331, Milner.

Faull agreed with the Company that Swan Falls and Milner represent lost opportunities that if not taken now will be lost, but disagreed with the Company that all opportunities should be taken regardless of cost. Tr. pp. 337-338, Milner.

In response to a question on how he would calculate a comparable avoided cost rate for a hydro facility, Faull said that he would use life-cycle costs and reduce the capital costs of the project to a point where levelized long-term costs of the project equal to comparable avoided cost rate. Tr. pp. 354-355, Milner. In the absence of evidence to the contrary, he would continue normalizing the most recent 20 years of water for retail ratemaking in calculating capital costs for kwh. Tr. pp. 355-356.

In considering non-quantifiable factors associated with the new plant, Faull would include the effect of the Swan Falls project on the Company's other hydroelectric facilities like the Hells Canyon Dam complex. Tr. p. 359, Milner. Faull hesitated to state that if the utility brought a project in at lower than avoided costs it would nevertheless be entitled to full avoided cost recovery for a project; he believed that avoided costs should be a cap, but not a floor. Tr. pp. 360-361, Milner. Faull opined that if a utility has an opportunity to acquire a hydroelectric site at a cost that exceeds the comparable rate for CSPP or



conservation, then the utility should not acquire or develop the site. Tr. pp. 366-368, Milner.

Faull could not estimate whether future flows in the river would increase or decrease. Irrigators may become more efficient in their use of irrigation water, which would increase flows, but requirements for downstream fisheries could reduce levels of generation on the Snake and Columbia rivers, perhaps as far upstream as Milner. Tr. pp. 377-378, Milner. The figures that Idaho Power presented to FERC in its application concerning the value of the power were not the figures it presented to the IPUC on the value of power for purchase from cogenerators or small power producers. Tr. p. 380, Milner.

Faull stated that Idaho Power considers Milner and Swan Falls as resources in the pipeline to come on in 1992 and 1993, so they do not fit into the resource stack for deferrable or avoidable resources. Tr. p. 384, Milner. In Faull's opinion the Company had been slow to go after conservation resources, but has been acting aggressively in that regard for the last year to 18 months. Tr. p. 387, Milner. In response to a question that described two possibly conflicting State policy goals of holding the Company to the requirements of a least-cost plan on the one hand and preserving ownership of and encouraging development of hydro capacity on the Snake River in entities subject to state regulation on the other hand, Faull stated that the latter State policy must have an implicit criterion of cost-effectiveness. Tr. pp. 388-390, Milner. The only issue aside from cost-effectiveness is whether there are policy reasons for wanting to retain regulatory control over a site. Tr. p. 395, Milner.

The Staff's final witness was Bill Eastlake, an economist. He addressed policy considerations that may influence the Commission's decision in the case. According to Eastlake, ratepayers are not buying a simple,

undifferentiated product (electrical generation) that is so standard that the only important factor in the purchase decision is price. Tr. p. 189. The projected costs from Swan Falls are approximately those of <sup>comparable</sup> avoided costs for purchase from cogenerators and small power producers. Tr. p. 189. Idaho's hydroelectric base has allowed Idaho Power and other utilities serving the State to remain among the lowest-cost utilities in the country. Where possible, it makes sense to keep local control of resources like low-cost hydropower so that their benefits are not reaped by utilities and ratepayers out of state. Tr. pp. 190-191.

The State Energy Plan places a high priority on conservation and renewables, with emphasis on improving existing resources. The Plan does not have the force of law, but the resource policy board that developed it clearly indicated a preference for getting more hydroelectric power at existing dams. Tr. pp. 192-193. The same preference for hydroelectricity should hold today, nearly a decade after the energy plan was published in February 1982. Tr. pp. 191, 194.

In addition, policy 1C of the State Water Plan, which has the force of law because it was approved by the Legislature, designates non-consumptive uses of water for hydro generation as beneficial and acknowledges a public interest in maintaining minimum river flows at Swan Falls. This is a striking departure from previous narrow definitions of beneficial use that emphasized removal of water from the river, usually for irrigation. Tr. pp. 195-196. In addition, policy 5A raised the minimum flows at the Murphy gauge near Swan Falls in accordance with the Swan Falls agreement. Tr. p. 196.

Eastlake found persuasive Idaho Power's argument that part of the reason to approve the Swan Falls project is the need to protect an existing water right. Tr. pp. 198-199. The value of maintaining minimum streamflows at the Murphy gauge associated with Swan Falls minimum flows of 5,600 cfs year

around were estimated to be \$105 million annually at avoided cost rates of 5¢/kwh and \$31 million annually at the variable cost of generation rates of 1.5¢/kwh. Tr. pp. 199-200. Further, when projected hydro power costs are approximately the same as avoided costs, then one should indulge a preference for keeping control over local resources. Tr. p. 484, Milner.

**D. Idaho Power's Rebuttal.** In Idaho Power's rebuttal case, Packwood disagreed with Staff witness Faull's estimates of operation and maintenance (O&M) costs for the project. New plants like Swan Falls are built so that O&M is lower because they do not need to be manned twenty-four hours a day. Tr. pp. 38-39. He disagreed with Faull that Swan Falls project is too small, noting that Swan Falls' capacity factor is high because the flows are fairly uniform throughout most of the year. Tr. pp. 39-40. The project size was selected upon a maximum flow of 14,700 cfs because flows exceeding this amount are present only 17% of the time based upon sixty years of daily flow records. Tr. p. 40. Additionally, FERC has reviewed the Company's plant size. *Id.*

Packwood explained that Idaho Power prefers standard firm bid proposals rather than requests for proposals and negotiation because its method has the following advantages:

1. Project design can be tailored to the needs of the owner rather than the developer's contract.
2. Contingencies to cover development risk are not required because the purchase and contracting are phased to the design process.
3. Developer mark-ups on equipment purchased from the manufacturer are eliminated.
4. The owner retains control of the combination and quality of equipment purchased by buying major equipment separately and analyzing each component based on maximizing the benefit to the project per dollar spent.

5. Changes to the project can be made based on site conditions without having to renegotiate the project development package.

6. Proposals received for the development or any part of the package are competitive proposals where bidders have eliminated contingency amounts to cover later negotiation. Negotiations with the preferred bidder do not give the bidder the competitive incentive to improve his proposal.

Tr. pp. 41-42. Packwood believed Idaho Power's procedures for obtaining bids are appropriate and prudent. Tr. pp. 43-44.

### **III. WRITTEN SUBMISSIONS FOLLOWING HEARING**

Idaho Consumer Affairs (ICA) submitted post-hearing comments. ICA stated its position that conservation should still be the preferred source of additional generating capacity. However, ICA was not convinced that conservation should be the sole new source of Idaho Power's additional generating capacity, and ICA believed that hydroelectric generation and fish and wildlife protection and enhancement are beneficial uses of water. ICA believed that upgraded hydroelectric projects are reasonably environmentally acceptable. Milner and Swan Falls should not become lost opportunities for Idaho's and the Pacific Northwest's future needs for additional generating capacity. In addition, hydroelectric projects' O&M costs are far less than thermal plants, they do not contribute to acid rain, air pollution, fly ash or waste disposal problems, their fuel (water) is considerably less costly than coal or uranium, their plant life is considerably longer, and they do not consume water in the river.

Idaho Power needs to plan for additional hydroelectric generation, in particular because the Canadian share of power from the Columbia River (around 900 average megawatts) will revert to British Columbia beginning in 1998. Even if British Columbia decides to sell this power in whole or in part to the United States, the cost will most assuredly rise.

With regard to lost opportunities, Idaho Power should get into these plants now to secure them for the future. If the electricity they produce is sold off-system at a reduced rate in the short-term, then the plant should not be rate based until it becomes used and useful for Idaho Power's ratepayers. The crossover point for Idaho Power's need for new generation is approximately 1998-1999, according to Idaho Power's testimony in the avoided cost case.

ICA concluded its comments with the following discussion:

13. ICA has no great problem with the FERC's order for IPC to rebuild their Swan Falls Dam, or IPC's desire to increase its generating capacity to 25 MW, since our preliminary investigation has determined there will be sufficient water during several months of the year to justify this additional generating capacity. Also IPC could use this additional electrical power at a later date, if not when the rebuild is completed.

This rebuild will be more expensive than it would be under ordinary circumstances, due to the FERC requirements that it be rebuilt in compliance with certain historical preservation requirements. However, this aspect is important to many people so IPC's ratepayers will have to fund these requirements by having their future rates slightly increased.

14. Regarding the FERC requirements that the picnic and boating facilities at Swan Falls be upgraded at the time of the rebuild, ICA respectfully requests the Commission to require the building of a boat launching dock downstream from the dam and the installation of picnic tables, a drinking water fountain and restrooms in the wooded area downstream from the dam. Present picnic and other mentioned facilities near the present lawn, as well as the present boat launching area are not adequate for the increased usage of the recreation facilities by the general public.
15. We feel IPC's decision to add additional generating capacity when the Swan Falls Dam is rebuilt, as ordered by FERC, is in the best interest of IPC's ratepayers, long term at least. However, we request any contracts for off-system power sales made by IPC be short term, five to 10 years, and recallable.

In addition, the Commission received a letter from Mitch Sanchotena, Executive Director of Idaho Steelhead and Salmon Unlimited (ISSU). That letter addressed design of the Swan Falls Dam as follows:

Anadromous salmon and steelhead once migrated freely in and out of the Snake River all the way upstream to Shoshone Falls. Today that migration is either being or has been totally blocked by hydro-electric dams on the Columbia and Snake rivers. ISSU does not oppose Idaho Power's application to increase the generating capacity of Swan Falls Dam. However, we do feel that any retrofitting or modification to any hydro power facility in potential anadromous areas should be designed to incorporate both the juvenile fish bypass system and upstream adult passage capacity.

Although anadromous fish do not migrate in the Snake River above Hells Canyon Dam any longer, ISSU does not believe this will be the long term scenario. ISSU believes that fish passage around the Hells Canyon complex can and should occur in the near future. When this does occur, it would be a big plus and of significant economic benefit to Idaho Power Company to have already designed a fish passage facility for the Swan Falls Dam.

Therefore, ISSU urges the Public Utilities Commission to review Idaho Power's request and grant it--contingent on a design to pass anadromous fish around the project.

#### **IV. THE COMMISSION'S DECISION**

**A. Authorization to Rebuild the Facility. WE FIND:** The current Swan Falls dam has deteriorated to a point that the engineering staff of the Federal Energy Regulatory Commission believes the dam must be removed, refurbished or replaced. The rebuild of the project is no longer avoidable or deferrable. In particular, the project must be rebuilt not merely for safety, but also to protect the priority of Swan Falls' water rights for the benefit of the entire Idaho Power system. The dam can be replaced and upgraded to 25 megawatts of generation consistent with FERC requirements. Idaho Power's proposed cap on the cost of the upgrade of Swan Falls to 25 megawatts (\$80,285,000) appears to be a reasonable upper bound on the cost of expected generation from the project.

The upper bound is reasonable because it is approximately (within 5% of) Idaho Power's avoided cost of the acquisition of new resources, after properly adjusting avoided costs for a 50-year life for the project; because the upper bound is not exclusively the costs of new generation, but also includes substantial costs that Idaho Power would incur in any event to make the dam safe; because it is just, fair and reasonable and in the public interest to authorize hydroelectric development at this existing site; and because executive and legislative policies of this State favor development of hydroelectricity at existing sites.

In addition, **WE FIND:** Idaho Power has substantially complied with the requirements of previous orders of this Commission, primary among them to provide a "commitment estimate" before the Commission will authorize it to reconstruct the Swan Falls hydroelectric facility. However, Idaho Power did not meet Order No. 19076's requirement to include a narrative of alternative studies performed to decide that rebuilding the Swan Falls dam was the least-cost alternative to acquiring additional resources. Perhaps the non-deferrable nature of the project made this analysis seem unnecessary to the Company, but that is not the case. Costs of alternative resources must always be presented by the Company as part of its case seeking approval of new generating resources. However, this application did include something of signal importance: Idaho Power's proposal in this case and in Milner to offer a "commitment estimate" as a rate base cap for the amount of recovery that it would seek from ratepayers for this project. Even with the contingencies included in the cap, these offers are important, far-reaching and exemplary steps toward containment of ratepayers' costs. These offers cannot go unapproved or unapplauded. We accept the cap as proposed by the Company. And, we note, as the Company itself did, that the cap is a cap only, not also a floor.

Based upon the findings in the previous two paragraphs, we authorize Idaho Power to reconstruct the Swan Falls hydroelectric facility.

***B. Revenue Requirement--Regulatory Compact.*** Next, we review the Commission's regulatory compact with its electrical utilities with regard to the authorization to build new generating facilities. Our analysis of this issue, in which our order for Swan Falls is the functional equivalent of a certificate of convenience and necessity for a generating project like Milner, is the same as in a case involving a certificate. When this Commission authorizes construction of new generation, it has not as a matter of law authorized the utility to recover from ratepayers whatever costs are invested in the new generation under all circumstances whatsoever. The regulatory compact is not so one-sided.

This Commission's authorization to construct new generation is a practical document, not one with only a single legal consequence. It informs the company, its ratepayers and its investors that, in the ordinary course of events, prudently incurred costs of construction of bringing the authorized plant on line will later be recognized in the company's revenue requirement. But prudence has more aspects than management of the construction. A certificate does not guarantee a utility recovery when it ignores or defies the laws of economics by continuing to invest in plants no longer necessary or prudent because demand has fallen from projections. A certificate does not guarantee recovery when investment is no longer prudent because costs have escalated beyond reasonable expectation. A certificate does not guarantee recovery when investment is no longer prudent because the percentage of the company's capital tied up in the project is unreasonable. A certificate does not guarantee recovery when investment is no longer prudent because technology has changed. A certificate



does not guarantee recovery when management, operation or construction of a project is beyond the utility's control and under the direction of others.

The classic examples of cases in which the issuance of a certificate was not a guarantee of full cost recovery were some utilities' investments in nuclear plants in the middle 1970s to the middle 1980s. In many instances, the plants reflected significant percentages of the company's proposed generation or capitalization (as much as half), escalated beyond all estimates of cost used in applications before regulatory commissions to secure regulatory approvals, could not be managed by the individual utility, continued to be pursued in the face of declining customer demand, and continued to be pursued as construction deadlines were missed and numerous scope changes were imposed.

This hydroelectric project, by contrast, stands at the other end of the spectrum. It represents a small portion of the Company's total generation and total investment base. It involves proven and reliable technology. The Company maintains management control of construction and is not at the mercy of other companies or a consortium of other companies. The project should be completed in three to four years.

In the former cases, the regulatory approval given before construction was initiated bore little resemblance to the cost of completion, time of completion or need for completion of the projects eventually placed in service. The likelihood of that occurring for hydroelectric projects like Swan Falls or Milner is slim, indeed. Therefore, **WE FIND:** In the ordinary course of events, the Company may expect its investment in the Swan Falls project to be recognized in its revenue requirement, barring unforeseen circumstances of a kind not characteristic of hydroelectric facilities. Further, the Company's incurrence of

costs for preliminary site and engineering work through its commitment estimate is reasonable and prudent and will later be recognized in revenue requirement.

**C. Rate of Return.** ICIP recommended that if the Commission acknowledged in this order that the Company's investment in the Swan Falls project should be recognized in its revenue requirement, then its equity return should be adjusted as a result. We disagree. The regulatory compact that we described in Part B of our decision is not novel. It has been implicit in our treatment of new generating plant since the middle 1970s, when the last era of new construction of generating plant began. What we have done in this Order that we have not always done in previous orders is make the regulatory compact explicit.

Accordingly, **WE FIND:** Idaho Power's rate of return should not be reduced from what it otherwise would be by our acknowledgement that its investment in the Swan Falls hydroelectric facility will be recognized in revenue requirement, barring extraordinary circumstances.

**D. FERC-Related Issues.** Idaho Consumer Affairs has called our attention to proposals for picnic and boating facilities and other recreational amenities downstream from the dam. The requirement for provision of recreational facilities is normally the subject of a FERC license, and ordinarily we do not review the terms of such licenses. In this instance, Commissioner Swisher, who has viewed the project recently, believes ICA's recommendations with regard to recreational facilities make sense. Arguably, the State may require recreational facilities in addition to those required by the federal license. However, rather than imposing such a requirement by this Order and then confronting the issues of state and federal jurisdiction that would result, we simply recommend the wisdom of ICA's proposals on recreational facilities to

Idaho Power and encourage it to take whatever steps are appropriate, on its own initiative or at the FERC, to provide such facilities. This reference to ICA's recommendations carries with it an acknowledgement that prudent investment in such facilities will be recognized in the revenue requirement..

Next, with regard to Idaho Steelhead and Salmon Unlimited's recommendation for providing for the passage of anadromous fish, we note that Article 401 of the FERC license provides:

The [Federal Energy Regulatory] Commission reserves the authority to require the licensee to construct, operate, and maintain, or provide for the construction, operation and maintenance of, fishways prescribed by the Secretary of the Interior.

**WE FIND:** Adopting a design for the dam that includes fishways or could be adapted with minimum expense to include fishways might be reasonable. It could be unwise not to design the dam in such a manner and be forced to make expensive alternations to an existing facility later because fishways or the means of accommodating fishways were not originally engineered into the project.

### O R D E R

IT IS THEREFORE ORDERED that Idaho Power Company is authorized to proceed on its reconstruction of the Swan Falls Hydroelectric facility according to the terms of this Order.

THIS IS A FINAL ORDER. Any person interested in this Order (or in issues finally decided by this Order) or in interlocutory Orders previously issued in this Case No. IPC-E-90-2 may petition for reconsideration within twenty-one (21) days of the service date of this Order with regard to any matter decided in this Order or in interlocutory Orders previously issued in this Case No. IPC-E-90-2. Within seven (7) days after any person has petitioned for

reconsideration, any other person may cross-petition for reconsideration. See *Idaho Code* § 61-626.

DONE by Order of the Idaho Public Utilities Commission at Boise, Idaho, this *18<sup>th</sup>* day of January 1991.

NOTE: Separate Concurrence of  
Commissioner Miller Attached.

DEAN J. MILLER, PRESIDENT

*Perry Swisher*  
PERRY SWISHER, COMMISSIONER

*Ralph Nelson*  
RALPH NELSON, COMMISSIONER

ATTEST:

*Myrna J. Walters*  
MYRNA J. WALTERS, SECRETARY

MG:nh/O-1271

**Concurring Comment--Order No. 23520**

**Dean J. Miller, President**

I write separately only for the purpose of further commenting on the question as to the degree of assurance of cost recovery that is properly associated with the granting of a certificate of public convenience and necessity.

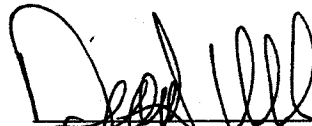
During the course of this proceeding and its companion case for Milner (IPC-E-90-8), we reviewed in detail historical and legal precedents to determine whether a certificate has a fixed legal meaning with respect to assurance of cost recovery. All parties pointed us to helpful precedents, but in my opinion no clear answer emerged.

I have thus concluded that a certificate does not have a fixed legal meaning that would be applicable in every circumstance. Rather, the commission is free, based on the facts of individual cases, to specify the degree of assurance of cost recovery that is associated with the granting of a certificate.

In this case the commission is justified in concluding, as is done in the body of the order, that there should be a relatively high degree of cost recovery assurance. Factors that justify this assurance include the non-deferrable nature of the project, the importance of protecting water rights, short construction time and proven technology.

By contrast if this case had been an application for authority to construct a thermal generating facility, the commission could have properly concluded that granting a certificate meant only that the company was granted authority to commence construction, but that all future risks were upon the company and that the company would have the burden of proof to establish the reasonableness of the investment in a subsequent rate proceeding.

In short, the specific facts of this case justify the terms of today's order, in which I concur. It should be made clear, however, that the commission has not adopted for all future cases, a fixed or binding definition of the legal effect of a certificate of public convenience and necessity. That determination should be based on the facts of specific cases as they are presented to us.

A handwritten signature in black ink, appearing to read 'Dean J. Miller', is written over a horizontal line.

DEAN J. MILLER, PRESIDENT