IDAHO STATE HISTORICAL SOCIETY

REFERENCE SERIES

SNAKE RIVER HYDROELECTRIC PLANTS

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In substantially less than two decades after Samuel F. B. Morse demonstrated his telegraph system in 1844, long distance lines had reached transcontinental proportions, and long phone lines followed after 1876. Interest in electric power transmission grew rapidly in 1880, after Thomas Edison showed that electric light systems had merit. Idaho had power generators for local light plants by 1882, but long distance power lines had to wait several years more for practical operation. A twenty-seven mile power line served a Cripple Creek property in Colorado in 1888, and others soon followed there. Electrical machinery, including hoists, elevators, power drills, pumps, and street cars quickly joined lighting and signaling systems there, and other camps gradually followed with electrical efficiency. Idaho camps and farm communities faced some notable delays in converting to electric power operations, although lighting systems came early because they required relatively little current. While a complete absence of coal and oil resources delayed electric power installation in Idaho, as did severe difficulties in constructing Snake River generating plants in places like Swan Falls, once those problems were surmounted, Idaho profited greatly from Snake River power development which offered great advantages over petroleum and coal sources. On that account, Snake River hydroelectric plants had an unusually important impact upon Idaho's economic development.

Hydroelectric plants incurred major installation expenses, but after they began production and met their initial costs, they continued to supply inexpensive electricity. Southern Idaho's sparse population did not create a burdensome demand for more than half a century, and insulation from other markets or sources of power relieved early Snake River plants from pressures to overexpand. A sequence of sales possibilities created several phases of distribution history. Since Idaho had practically no opportunity to engage in most kinds of heavy industrial production, a large share of power sales was reserved for mostly rural families who had electric lights and appliances. By 1940, Idaho's farm dwellings had an exceptionally high rate of electrical service, with 64.2% compared with a national average of only 27.8%. Farmhouses that lacked electrical service mostly were scattered in remote areas, and if farm dwellings of less than $500 in value were excluded, 87.44% were electrified. More

than half of Idaho farmhouses had electric ranges, and a fourth of them used electricity for heating water. In addition practically all Idaho urban dwellings had electric power available. Only two other states anywhere could match Idaho in household utilization of electric power, which Snake River hydroelectric projects did so much to provide. Meanwhile other substantial uses had come and gone. Most notable of those was Boise's street car system (1892-1928) and Boise Valley's interurban electric railway loop (1906-1928) that profited from Swan Falls power until automobiles and motor stages made them obsolete. Agricultural and logging industrial users also benefitted, but their sources often were from other sites. In any event, Snake River electric power plants had a major impact upon Idaho's unusual social and economic development. Except for some Snake River power outlets in Utah, almost all of southern Idaho's utilization formed a self-contained system that had little prospect of exporting power outside of Utah until after 1940.

In 1894, A. D. Foote undertook a Snake River tour that enabled him to identify all significant canal and electric power sites above Boise Valley (Swan Falls to American Falls), but implementation of his grand economic development plan could not materialize just then: a national financial panic delayed all of his promising projects for several years. Finally mining needs at Silver City led to construction of Swan Falls Dam in 1900-1901. By that time, long distance power lines had been improved enough over what was available in 1894 that such projects appeared to be realistic. American Falls had an initial plant in 1902 and in 1903 city owned Idaho Falls had a Snake River generator. In less than a decade, a substantial number of others followed. Most of them ran into economic troubles, often with large irrigation companies that failed in enterprises in other states, so that their Idaho operations could not survive bankruptcies elsewhere. Such Snake River plants, however, had potential to function profitably when better organization became available.

Hydroelectric facilities associated with large reclamation projects also came early during Snake River power development. Both state and federal sponsored irrigation ventures had power components. Their Snake River dams attracted much larger capital investment than power company installations could gain, and some of their diversion structures were far larger in size. Milner Dam, built to serve state regulated canal systems of major importance, followed Swan Falls and American Falls facilities almost immediately, while Minidoka Dam came in 1904-1909. Gravity canals served by Milner did not require electric power, but an additional 49,000 Minidoka project acres became possible only because of a federal hydroelectric plant that pumped water to higher levels. This early experiment in federal power served as a significant precedent for a much larger subsequent Tennessee Valley Authority enterprise. Public power distribution, however, was not limited to federal projects. Progressive legislation of

1913 provided for municipal government systems, and Idaho Falls, with a Snake River plant going back a decade earlier, utilized that authorization to enlarge Idaho's major municipal operation. Idaho Falls had a municipal power department that began in 1901. Declo followed in 1912.

A national solution to problems of operating small local electric power companies came after a large syndicate--General Electric--incorporated a holding company--Electric Bond and Share (more recently a subsidiary of Boise Cascade)--in 1904 to take over a host of troubled local operations.

Electric Bond and Share arranged to develop a large subsidiary, Idaho Power Company, to absorb almost all Snake River nongovernmental plants in time to commence operating on August 1, 1916. When national holding company disasters erupted after 1929, congressional legislation of 1935 led to a separation of Idaho Power from Electric Bond and Share in 1943. Idaho Power continued to expand, although a few more public power companies were set up to utilize Snake River sources as well. These included municipal operations at Albion (1916), Burley (1918), and Heyburn (1920), along with farmers' cooperatives supplied from Minidoka Dam.

(This information has not been edited.)