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APPROVED
DEC 16 1975

signed
12/16/75
ACTION

THE WHITE HOUSE
WASHINGTON

Last Day: December 19

December 16, 1975

MEMORANDUM FOR THE PRESIDENT

FROM: JIM CANNON

SUBJECT: H.R. 6669 - Authorization for Reclamation Feasibility Studies

Attached for your consideration is H.R. 6669, sponsored by Representatives Johnson, Lujan and Clausen, which would authorize the Secretary of the Interior to engage in feasibility investigations of twelve specified potential water resource and certain other projects.

A discussion of the provisions of the bill is provided in OMB's enrolled bill report at Tab A.

OMB, Max Friedersdorf, Counsel's Office (Lazarus) and I recommend approval of the enrolled bill.

RECOMMENDATION

That you sign H.R. 6669 at Tab B.

Posted
12/17
To Archives
12/17





EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

DEC 12 1975

MEMORANDUM FOR THE PRESIDENT

Subject: Enrolled Bill H.R. 6669 - Authorization for
reclamation feasibility studies
Sponsors - Rep. Johnson (D) California, Rep.
Lujan (R) New Mexico and Rep. Clausen (R)
California

Last Day for Action

December 19, 1975 - Friday

Purpose

Authorizes the Secretary of the Interior to engage in feasibility investigations of twelve specified potential water resource and certain other projects.

Agency Recommendations

Office of Management and Budget	Approval
Energy Research and Development Administration	Approval (Informally)
Department of the Interior	No objection

Discussion

Existing law forbids the Secretary of the Interior or anyone acting for him from engaging in feasibility investigations, unless such studies are specifically authorized by the Congress. Feasibility investigation is defined by law as any work leading to preparation of a report intended to be used as a basis for authorization of a Federal Reclamation project. The enrolled bill provides legislative authority to the Secretary of the Interior to undertake feasibility investigations of twelve specified potential water resource and certain other projects for development by the Bureau of Reclamation.

This legislation would authorize feasibility studies of potential electric power transmission system improvements in a broad area within the seventeen Western States (\$300,000); the Boulder Canyon Project (\$700,000),



to increase hydroelectric power peaking capacity at the Hoover Dam on the Arizona-Nevada boundary; and the Yakima project (\$350,000) to coordinate potential Indian irrigation projects in the State of Washington.

Other specified projects covered by this legislation are:

<u>Project</u>	<u>Location</u>	<u>Estimated Cost of Study</u>
Minidoka Power Plant	Idaho	\$ 200,000
Columbia Northside Project	Washington	\$ 800,000
Seward Project	Oklahoma	\$ 300,000
Frenchman-Cambridge Division	Nebraska	\$ 427,000
Upper Canadian River Basin	New Mexico	\$ 400,000
The Versippi Unit	North Dakota	\$ 100,000
Mora River Basin	New Mexico	\$ 400,000
Muddy Ridge Area	Wyoming	\$ 250,000
Susanville, California Geothermal Energy Resource Analysis	California	\$1,000,000 +

The total estimated cost of the feasibility studies covered in H.R. 6669 is \$5,227,000 over an approximate 5-year span.

As noted in Interior's letter on the enrolled bill, the Administration opposed, or has not yet developed a position on, various feasibility studies that would be authorized by H.R. 6669. In its letter on the enrolled bill, the ERDA points out that the proposed study relating to electric power transmission in the seventeen Western States would duplicate a portion of a national power study it is now making.

While we share these concerns, we do not believe that they constitute a basis for disapproval of the bill, and the two agencies agree. Since H.R. 6669 only authorizes such studies, we believe that the budgetary process will afford an adequate means to limit implementation to those studies considered justified and desirable.

James M. Frey
 James M. Frey
 Assistant Director for
 Legislative Reference

Enclosures





United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

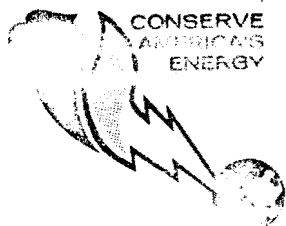
May 19, 1975

Dear Mr. Chairman:

This is in response to your request for the views of this Department with respect to eleven bills, all of which authorize the Secretary of Interior to conduct feasibility studies for potential water resource developments. The bills are as follows: H.R. 6669, is an omnibus bill which includes the substance of all the remaining bills and provides for feasibility study authorities for the following potential projects:

- (a) Power intertie potentials for the purpose of improving electric power transmission systems affecting the 17 Western States. (H.R. 5813)
- (b) the Boulder Canyon Project modification, located at the existing Hoover Dam, at the Arizona-Nevada boundary on the Colorado River, in Mohave County, Arizona, and Clark County, Nevada. (H.R. 6009)
- (c) the Minidoka Project, Minidoka powerplant rehabilitation and enlargement, located at the existing Minidoka Dam, powerplant, and reservoir on the Snake River in Minidoka, Cassia, and Blain Counties, Idaho. (H.R. 6411)
- (d) the Mora River Basin in Mora County, New Mexico. (H.R. 5850)
- (e) the Yakima Project, Yakima Indian Reservation near the Yakima River in Yakima and Klickitat Counties, Washington. (H.R. 6236)
- (f) the Columbia Northside Project, White Salmon Division, located along the White Salmon River in Klickitat and Skamania Counties, Washington. (H.R. 6237)
- (g) the Seward Project, Logan and Oklahoma Counties, Oklahoma. (H.R. 4922)
- (h) the Frenchman-Cambridge Division, Pick-Sloan Missouri Basin Program, Chase, Hitchcock, Hayes, Frontier, Red Willow, Furnas, and Harlan Counties, Nebraska. (H.R. 6620)
- (i) the Upper Canadian River Basin, Colfax County, New Mexico. (H.R. 6671)
- (j) the Versippi Unit, Heart Division, Pick-Sloan Missouri Basin Program Start and Dunn Counties, North Dakota. (H.R. 6653).

With respect to each study, all reasonable sources of supply and alternative projects would be studied, and consideration would



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be given to flood control, recreation, fish and wildlife, and other environmental potentials as project purposes to the extent applicable. All relevant local and national governing agencies, and private entities would be consulted. Feasibility studies would be conducted under the guidelines of the Water Resources Council's Principles and Standards for Planning Water and Related Land Resources.

The Administration has not developed a position with respect to these bills. When a position is developed, we will be able to furnish it to the Committee.

Each of the proposed projects is discussed individually hereinafter.

H.R. 5813

The Power Intertie Study

H.R. 5813 would authorize feasibility studies of potential electric power transmission system improvements in a broad area within the 17 Western States. The purpose of this feasibility investigation is to evaluate the benefits, revenues, and costs that will result from integrating loads and resources between certain major river basin transmission systems by means of power interties in the Western United States.

Power interties are designed to help alleviate future electric power crises and to enable expanded and more flexible use of existing and added generating capabilities.

The study program would include consideration of potential power interties in the Western States which would assist Federal, public, and private power suppliers to serve their customers' load requirements at a lower cost, as well as result in conservation of resources. The total estimated cost of the study is \$300,000, and the period of study is estimated at 1 year.

Both public and private entities would be fully involved in the study.

In the mid-sixties, Bureau of Reclamation studies led to authorization in 1964 of the Pacific Northwest-Pacific Southwest Intertie, which was constructed by various private, public, and Federal entities, and is now operational.

In 1967 and 1968, a Department of the Interior team, composed of representatives of the Bureau of Reclamation, the Bonneville Power Administration, and the Southwestern Power Administration, completed a study of the Western power systems to demonstrate the benefits of interconnecting high-voltage transmission lines as called for in the 1964 National Power Survey of the Federal Power Commission. The study indicated that the benefit-cost ratio of alternative plans ranged from 1.3 to 1 and 1.9 to 1. Benefits discussed included load diversity, secondary energy sales, possible installation of larger units, transmission savings, improved reliability, and emergency interchanges of power between areas.

In addition, detailed data from a preliminary appraisal in March 1975 indicated oil and monetary savings could be achieved by displacing oil-fired generation in the Western Systems Coordinating Council area with excess generation in the Mid-Continent Area Reliability Coordination Agreement (MARCA) area. Current projections indicate the MARCA area may be capable of generating enough excess energy to conserve 23.9 million barrels of oil and save \$245.3 million in 1983.

H.R. 6009

Boulder Canyon Project

H.R. 6009 would authorize feasibility studies of the potential Boulder Canyon Project modification to increase the hydroelectric power peaking capacity by adding generating units at the existing Hoover Dam, located on the Arizona-Nevada boundary on the Colorado River in Mohave County, Arizona, and Clark County, Nevada.

Proposed study considerations include:

1. Effect of construction and operation of the potential modification on the fisheries of Lake Mead region.
2. A determination of the amount of river channel excavation required.
3. Possible revisions to the downstream Lake Mohave operating criteria to allow storage capacity for water reregulation.
4. An evaluation of the value of proposed generating capacity additions.
5. Environmental impact studies, including consideration of any proposed transmission lines.
6. An analysis of the integration of the proposed additional generating capacity with operation of the existing powerplant.

The total estimated cost of the potential 3-year feasibility investigation would be \$700,000 with a first-year funding of \$100,000 required.

A preliminary investigation of additional generating capacity at Hoover Powerplant was completed in April 1973. The investigation indicated that it was technically and economically feasible to increase the peaking capacity at Hoover Powerplant by an additional 1,000 megawatts at a total estimated cost of \$165,000,000 (January 1973 prices). During the study a variety of possible modifications were considered including both conventional hydroelectric units and reversible pumped-storage hydroelectric units.

This study indicated the need for large quantities of peaking capacity in the Pacific Southwest. Thus, additional generating units at Hoover Powerplant could play a part in meeting the overall energy requirements for the 1980's.

H.R. 6411

Minidoka Powerplant Project

The primary purpose of H.R. 6411 would be to evaluate the feasibility of rehabilitating or replacing the old power units and providing additional generating capacity at the existing Minidoka Powerplant on the Snake River. The existing installed capacity of 13,400 kilowatts (kW) could be increased to about 30,000 kW. The need for new recreation facilities at Lake Walcott (the reservoir formed by Minidoka Dam) would be studied. Wildlife enhancement, water quality, and fishery aspects also would be considered.

Minidoka Dam and Powerplant were the key features of the initial development of the Minidoka Project, one of the earliest Bureau of Reclamation projects. The dam, located on the Snake River, serves as a combined diversion, storage, and power dam. Construction of the dam began in 1904 and was completed in 1906.

The original concrete powerhouse was completed in 1909. It forms a part of the right (north) side of the dam and contains six units. A separate powerplant addition with one generating unit was completed in 1942.

The feasibility of replacing some or all of the older units at the time of enlargement would be studied. The possibility of peaking operations and downstream reregulation also could be considered.

The alternative of constructing a new powerhouse in order to permit continued generation by the existing units during the construction period would be explored. Some drilling would be required to determine geologic site conditions at the potential new location.

Preliminary 1975 reconnaissance data and evaluations indicate a project benefit-cost ratio of 1.5 to 1.0 at an interest rate of 5-7/8 percent. The project's total estimated cost was \$12,800,000 with all costs being allocated to the hydropower function which includes an enlarged generating capacity of 16,600 kW. Recreation, and possibly wildlife enhancement, also would be analyzed. The total estimated cost of the study is \$200,000 of which \$125,000 would be required in the first year. A 1-1/2 year study is proposed.

H.R. 6236

Yakima Project

H.R. 6236 would authorize feasibility studies of the irrigation and related outdoor recreation, flood control, fish and wildlife, and area redevelopment potentials, of the Yakima Indian Reservation region in south-central Washington in the vicinity of the Yakima River. Major population centers on the reservation are Wapato, Toppenish, White Swan, Harrah, Brownstown, and Parker. The total Indian population is over 5,000. Non-Indian cities in the immediate area are Yakima, Granger, and Union Gap with population totaling about 50,000.

The proposed investigation combines the results of three previous studies, including two sponsored by the Bureau of Indian Affairs (BIA), to develop the Mabton and Toppenish-Simcoe Projects within the Yakima Indian Reservation, and our appraisal and feasibility level studies of the potential Ahtanum Unit, Yakima Project. Therefore, the objective of this study is to combine the viable aspects of the above three studies into a single, updated proposal for consideration by the Congress. The total estimated

cost of the proposed 3-year feasibility investigation is \$350,000 with a first-year funding requirement of \$100,000.

The combined project would potentially irrigate 19,800 acres of Indian and 13,400 acres of non-Indian lands; provide 600,000 recreation days annually under initial use condition; enhance fishing and hunting to the extent of up to 258,000 man-days of use per year, as well as provide significant flood control and area redevelopment benefits. A reformulation evaluation combining the functions of the three individual projects as units indicates a benefit-cost ratio of 1.11 to 1.0.

The BIA has developed plans to construct the Mabton and Toppenish-Simcoe Projects within the Yakima Indian Reservation. These potential projects adjoin the operating Wapato Indian Project. The Mabton plan proposes development of a reservoir on Satus Creek to provide storage for irrigation of about 2,800 acres, outdoor recreation, flood control, and improvement of fish and wildlife resources. Approximately 98 percent of the land in the proposed project is under Indian-ownership. A planning report was prepared on this project by BIA in May 1969.

The Toppenish-Simcoe Project proposes construction of a dam and reservoir on Simcoe Creek to provide storage for irrigation of about 14,000 acres, fish and wildlife, outdoor recreation, and flood control. About 80 percent of the land proposed for irrigation is under Indian-ownership. The BIA prepared a planning report on the project in October 1967.

The Bureau of Reclamation has studied the possibility of developing storage on Ahtanum Creek, which is located on the north boundary of the Yakima Indian Reservation, to irrigate over 5,800 acres of Indian-owned land and 10,600 acres of non-Indian land, to provide flood control, recreational opportunities, and a trout fishery. Extremely dry conditions during the summer of 1973 followed by severe flooding in January 1974 focused attention on the three potential projects.

H.R. 6237

Columbia Northside Project

H.R. 6237 would authorize feasibility studies of water resource development potentials along the White Salmon River in Klickitat and Skamania Counties, Washington.

The purpose of the feasibility investigation would be to:

1. Formulate a viable plan for developing offstream storage in the White Salmon River drainage area: (a) provide the hydrologic and physical setting for a pumped-storage hydroelectric generating complex with an estimated capacity of 1,500 megawatts to be developed in conjunction with a public utility district or some other non-Federal entity; (b) provide an irrigation water supply to develop fruit orchards on 10,000 to 20,000 acres in the area; and (c) supply municipal and industrial water to the towns of White Salmon and Bingen. This storage would also provide a base of water-oriented recreation, fishery resource, and incidental flood control.
2. Formulate an environmentally acceptable plan for removing the Condit Dam from the White Salmon River to open 25 miles of main river fishery habitat to salmon and steelhead trout.

Results of a February 1974 appraisal report on the subject indicated a benefit-cost ratio of 1.84 to 1.0 at an interest rate of 5-1/2 percent at January 1972 price levels.

The total estimated cost of the potential 4-year feasibility investigation is \$800,000 with a first-year funding requirement of \$100,000.

Five alternative plans for development of the area's resources have been investigated at the appraisal level. The White Salmon River and tributaries would be utilized as the water supply. The plans include various combinations of pumping directly from the river and diverting to offstream storage reservoirs to serve multiple-purposes. The plans address themselves to various levels of fishery enhancement; hydroelectric power generation (pumped-storage concept); domestic, municipal, and industrial water supply, and recreation, irrigation, and flood control.

A brief description of one of the plans studied and the one for which the above-mentioned benefit-cost ratio of 1.84 to 1.0 has been estimated includes: program goals for hydropower of 1,500 MW as described below; 12,000 acres of full irrigation service; 60,000 angler days per year and 267,000 pounds per year of commercial fish harvest; incidental flood control benefits; 20,000 visitor days per year of outdoor recreation; and 500 acre-feet per year of municipal and industrial water supplies. That total estimated project cost does not include the cost of power generation facilities which are assumed to be absorbed by non-Federal interests.

In this plan Condit Dam on the White Salmon River would be removed, opening 25 miles of main river fishery habitat to salmon and steel-head trout. Peak flows in the river, which hamper migration of the fish, would be diverted to an offstream storage complex. This offstream storage capability would: (1) supply municipal and industrial water to the towns of White Salmon and Bingen; (2) provide an outstanding site for a pumped-storage hydroelectric generating complex with an estimated capacity of 1,500 MW to be developed in conjunction with the Klickitat County Public Utility District No. 1 or some other non-Federal power entity; (3) create a surface area adequate to provide cooling for a nuclear-thermal generating complex at some future time; (4) provide a base for water-oriented general recreation activities and a sport fishery; and (5) provide a water supply adequate to irrigate 12,000 acres of apple and pear orchards.

H.R. 4922

Seward Project

H.R. 4922 would authorize feasibility studies of water resource development proposals for central Oklahoma and the cities of Guthrie and Edmond, and other communities.

Any feasibility study would have to proceed with an initial focus on the ground water capabilities in the area. There would be constant cooperation with the Corps of Engineers, the Association of Central Oklahoma Governments, Oklahoma City, and the Oklahoma Water Resources Board in order to continuously evaluate the need for the Seward Project.

A December 1974 appraisal level report focused on a potential Seward Dam and Reservoir, to be located about 1 mile west of Seward, Oklahoma, in Logan County. That dam would create a reservoir with a storage capacity of about 201,000 acre-feet at top flood control pool, and a water surface area covering about 10,200 acres.

The benefit-cost ratio of the Seward plan has been estimated at 1.3 to 1.0 in an evaluation which utilized an interest rate of 5-7/8 percent. The cost of feasibility investigations is estimated at \$300,000, with \$75,000 required in the first year. This investigation would take 3 years to complete.

We note, however, that the Corps of Engineers is currently exploring several projects which could be alternatives to the Seward Project, and the ground water situation in the area is not yet adequately known for long term municipal and industrial water supply needs.

H.R. 6620

The Frenchman-Cambridge Project

H.R. 6620 would authorize feasibility investigations of a supplemental water supply for the Frenchman-Cambridge Division, Pick-Sloan Missouri Basin Program, located in Chase, Hitchcock, Hayes, Frontier, Red Willow, Furnas, and Harland Counties in southwest Nebraska. An appraisal report on the potential project is scheduled for completion in June 1975.

The goal of the potential plan would be to prevent a loss of water supply to 10,000 acres of presently irrigated land which may otherwise go out of production by year 2000 due to an insufficient water supply.

The purpose of the study would be to develop plans and implementation schedules to alleviate water shortages fed by continued depletions of the inflows into storage facilities of the Frenchman-Cambridge Division. The division consists of five units, operated by three irrigation districts. The Frenchman Valley Irrigation District has 9,600 irrigable acres, the H&RW Irrigation District has 11,490 acres, and the Frenchman-Cambridge Irrigation District has 45,003 acres, a total of 66,093 irrigable acres. The inflow to the dam and reservoir serving the Frenchman Valley and H&RW Irrigation Districts has been reduced by substantial upstream ground-water development.

The alternatives to be considered would be:

1. Measures to reduce distribution system losses
2. Irrigation Management Services (IMS)
3. Development of additional storage facilities
4. No development

An eventual total solution to the water supply problem in the Republican and Frenchman River Valleys may depend upon actions of the State of Nebraska in providing needed legislation and guidance in management of the respective basins' ground water resources. The State should participate and provide legislative controls on the use of ground water in the upper basins in order to arrive at a meaningful plan for meeting and controlling current and future water supply deficiencies.

The total estimated cost of the plan is \$3,000,000 based on January 1974 price levels. The potential plan is currently estimated to have a benefit-cost ratio of 2.86 to 1.0 at an interest rate for evaluation of 5-7/8 percent.

The total cost of the potential feasibility investigation is estimated at \$427,000 with a first-year requirement of \$70,000. The study would require 4 years to complete.

H.R. 6671

Upper Canadian River Project

The purpose of the feasibility study proposed in H.R. 6671 is to develop detailed plans for satisfying the immediate and long-range municipal and industrial needs of the city of Raton, New Mexico. This investigation would include an environmental impact statement that would assess the environmental factors relating to the project.

Potential water resources that would be investigated include but are not limited to:

(1) the Upper Canadian River and its tributaries; (2) the Dry Cimarron River Basin, and (3) ground water resources in the vicinity of Capulin located about 30 miles east of Raton. Other water resource needs related to municipal and industrial requirements will be identified and evaluated.

Various consultants have generated information, obtained data, and completed studies relative to a water supply plan for the city of Raton, New Mexico. Thus, considerable appraisal level data is already available from which a feasibility study could be initiated. A feasibility study would evaluate all available studies and incorporate useful information in determining the economic, environmental, social, and physical feasibility of the proposed development.

Estimated cost of the study is \$400,000, and \$75,000 for the first year.

H.R. 6653

The Versippi Project

H.R. 6653 would authorize a study of the Versippi Unit, Heart Division, Pick-Sloan Missouri Basin Program, principally for

the purpose of evaluating long-range water supply plans for the city of Dickinson, North Dakota.

Initiation of the study would be dependent on better indications that anticipated growth in the area will take place with the study designed toward providing long range water supply contingency plans.

A feasibility study now being accomplished by the Bureau of Reclamation should lead to a plan to supply Dickinson with adequate M&I water through 1985. Beyond that time frame a large project of the scale of the Versippi Unit will be required only if there is substantial development of the lignite coal reserves in the area of Dickinson.

The principal long-term alternative to the above mid-term plan is to secure additional water supplies from the potential Versippi Unit. The plan includes the Versippi damsite and reservoir on the Green River about 6 miles from Dickinson. It is estimated that a reservoir at the Versippi site could provide an adequate supply through year 2025. The estimated project cost is \$12,000,000 and the benefit-cost ratio is evaluated at about 1.5 to 1.0. The total estimated cost of the study is \$100,000. The study would require 1 year to complete. The Versippi site could also provide fish, wildlife, and recreational benefits, as well as some flood control.

H.R. 5850

The Mora Basin Project

H.R. 5850 would authorize feasibility studies of the water resources of the headwaters of the Mora River, in Mora County, New Mexico. We do not support the authorization of this feasibility study. From the "Mora Project Wrap-Up Report" prepared by the Bureau of Reclamation in January 1974, there is considerable opposition to any proposed development in the area. The report also estimates that more than 50 percent of the costs

would need to be allocated for fish, wildlife and recreation, which exceeds the 50 percent limit placed on those purposes by Public Law 89-72.

The Office of Management and Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely yours

Assistant

Secretary of the Interior

Honorable Harold T. Johnson
Chairman, Subcommittee on
Water and Power Resources
House of Representatives
Washington, D.C. 20515



United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

DEC 9 1975

Dear Mr. Lynn:

This responds to the request of your Office for the views of the Department with respect to an enrolled bill, H.R. 6669, "To authorize the Secretary of the Interior to engage in feasibility investigations of certain potential water resource developments."

The Department does not object to the signing of the bill, although we can make no assurances as to when the funds can be made available to conduct the studies proposed in the legislation.

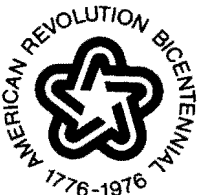
H.R. 6669 as originally introduced in the Congress and reviewed by the Department in May of this year was an omnibus bill containing ten (10) separate feasibility studies to be conducted by the Bureau of Reclamation for proposed water resource projects. The ten proposed studies are all contained in the present enrolled bill.

In its report to the Congress on May 19, 1975, on the original bill, the Department reported that the Administration had not developed a position on the proposed projects, except that with respect to the Mora Basin Project, the Department recommended against authorization of the feasibility study.

Each of the ten proposed projects was discussed individually in our report of May 19. That report is attached to this enrolled bill report and is incorporated herewith insofar as it discusses the various individual projects.

In the course of Congressional markup of H.R. 6669, two additional project studies were included in the bill and are now part of the enrolled bill. These added features are for feasibility studies for the Muddy Ridge area, Riverton Unit, Pick-Sloan Missouri Basin Program, Fremont County, Wyoming, and the Susanville, California, geothermal energy resource analysis.

The Muddy Ridge area is an undeveloped area in the Third Division of the existing Riverton Unit in Wyoming. Previous investigations have shown that about 9,000 acres in this area are irrigable under



gravity irrigation. The Wyoming Canal, which serves the Third Division, was built with sufficient capacity to deliver water for these 9,000 acres. They would be served by a new canal, the Muddy Ridge Canal, which would begin at an existing turnout in the Wyoming Canal.

The Midvale Irrigation District of the Riverton Unit supports a feasibility study of the Muddy Ridge area. They feel that about 18,000 acres could be developed for sprinkler irrigation. This would include the 9,000 acres classified as irrigable by gravity methods, plus additional lands interspersed among them which heretofore have been classified as nonirrigable. The District feels that the additional water needed could be obtained by capturing and reusing drainage waters from currently operating portions of the Riverton Unit.

It is estimated that a feasibility study would take 3 years and require \$250,000. The study would include land classification, water supply studies, drainage studies, design of project features, estimate of costs and benefits, repayment analysis, investigation of potential land subsidence, environmental analysis and preparation of an environmental impact statement.

The Susanville Geothermal feasibility study program would expand the appraisal studies of the Bureau of Reclamation. The appraisal studies consist of geophysical and geologic exploration culminated by a shallow hole drilling (to 150 feet) program to determine temperature gradients. Results to date indicate at least four potential geothermal anomalies exist.

Feasibility studies will consist of at least four moderate depth (to 1,500 feet) temperature gradient holes coupled with appropriate geophysical and geologic exploration. One deep (5,000 to 6,000 foot) production type hole may be drilled at the most promising site.

Flow testing and geophysical and temperature logging of the deep hole would provide a measure of feasibility of and/or risks involved in developing geothermal resources in the Susanville, California, area.

Development of geothermal resources for such uses as space heating, industrial process heat or other energy uses will greatly aid this economically depressed area. It would also test the practicability

of its use by other municipalities in the Western United States where similar potentials exist. The total cost of this study is estimated at \$1,000,000.

Several of the proposals contained in the bill have considerable potential merit, of a regional or even national significance, particularly the power intertie study, the Susanville Project, and the Boulder Canyon Project. Several others, including the Minidoka, Yakima, and Columbia Northside Projects have substantial local support and incentive behind them. As previously mentioned, we have recommended against one of the projects (Mora) and several others appear to be of less than immediate urgency, namely, the Versippi, Seward, and Frenchman-Cambridge project studies.

We feel that on balance the favorable aspects of the bill outweigh the unfavorable, and that differences in merit can be accounted for in funding priorities. For these reasons, we do not object to the signing of the bill.

Sincerely yours,


Assistant Secretary of the Interior

Honorable James T. Lynn
Director, Office of
Management and Budget
Washington, D.C.



UNITED STATES
ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
WASHINGTON, D.C. 20545

DEC 12 1975

Mr. James M. Frey
Assistant Director for
Legislative Reference
Office of Management and Budget

Dear Mr. Frey:

The Energy Research and Development Administration is pleased to offer its comments on enrolled bill H.R. 6669, an act "to authorize the Secretary of the Interior to engage in feasibility investigations of certain potential water resource developments."

The bill authorizes the Secretary of the Interior to engage in feasibility studies of 12 enumerated potential water resource developments. The Energy Research and Development Administration has been asked by the Office of Management and Budget to comment with respect to two of them:

(a) Power intertie potentials for the purpose of improving electric power transmission systems affecting the seventeen Western States.

* * *

(1) A comprehensive resource analysis adequate to determine the feasibility of a geothermal energy utility system for the city of Susanville, California, and to initiate reconnaissance level studies of similar undertakings which may be requested by public entities in the future.

Although we have not previously had an opportunity to review the bill, it appears that proposal (a) cited above may be duplicative of activities in which this agency is already engaged. The Energy Research and Development Administration's Assistant Administrator for Conservation, as part of the Electric Energy Systems program, is engaged in a comprehensive assessment of electric power systems



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development on a nationwide scale, encompassing investigation of various-sized systems building blocks and interconnections. The Energy Research and Development Administration thus believes that the study authorized by section (a) of the bill is unnecessary.

The study which would be authorized by paragraph (1), however, is one which we are well aware of and specifically support. It comprises a portion of an integrated program which combines the Department of the Interior's resource analysis capability with the Energy Research and Development Administration's energy development capability. This Department of the Interior (Bureau of Reclamation) study would complement, rather than overlap, the Energy Research and Development Administration's own study relating to the feasibility of a geothermal energy system for the city of Susanville, California.

Accordingly, we recommend that the President sign H.R. 6669, but that steps be taken by the Office of Management and Budget to insure that studies authorized by the bill--specifically, the study authorized by paragraph (a)--not be performed if actually duplicative of studies currently being undertaken by the Energy Research and Development Administration.

Sincerely,



Robert C. Seamans, Jr.
Administrator

EXECUTIVE OFFICE OF THE PRESIDENT

OFFICE OF MANAGEMENT AND BUDGET

WASHINGTON, D.C. 20503

DEC 12 1975

MEMORANDUM FOR THE PRESIDENT

Subject: Enrolled Bill H.R. 6669 - Authorization for
reclamation feasibility studies
Sponsors - Rep. Johnson (D) California, Rep.
Lujan (R) New Mexico and Rep. Clausen (R)
California

Last Day for Action

December 19, 1975 - Friday

Purpose

Authorizes the Secretary of the Interior to engage in feasibility investigations of twelve specified potential water resource and certain other projects.

Agency Recommendations

Office of Management and Budget	Approval
Energy Research and Development Administration	Approval (Informally)
Department of the Interior	No objection

Discussion

Existing law forbids the Secretary of the Interior or anyone acting for him from engaging in feasibility investigations, unless such studies are specifically authorized by the Congress. Feasibility investigation is defined by law as any work leading to preparation of a report intended to be used as a basis for authorization of a Federal Reclamation project. The enrolled bill provides legislative authority to the Secretary of the Interior to undertake feasibility investigations of twelve specified potential water resource and certain other projects for development by the Bureau of Reclamation.

This legislation would authorize feasibility studies of potential electric power transmission system improvements in a broad area within the seventeen Western States (\$300,000); the Boulder Canyon Project (\$700,000),

THE WHITE HOUSE .

ACTION MEMORANDUM

WASHINGTON

LOG NO.:

Date: December 22

Time: 500pm

FOR ACTION:

Blenn Schleede *lh* cc (for information):
George Humphreys = *ak*

Jack Marsh†
Jim Cavanaugh

FROM THE STAFF SECRETARY

Ken Lazarus *lh*

DUE: Date: Max Friedersdorf *lh*
December 15

Time: 400pm

SUBJECT:

H.R. 6669 - Authorizati~~on~~ for reclamation feasibility studies

ACTION REQUESTED:

For Necessary Action

For Your Recommendations

Prepare Agenda and Brief

Draft Reply

For Your Comments

Draft Remarks

REMARKS:

Please return to Judy Johnston, Ground Floor West Wing

PLEASE ATTACH THIS COPY TO MATERIAL SUBMITTED.

If you have any questions or if you anticipate a delay in submitting the required material, please telephone the Staff Secretary immediately.

K. R. COLE, JR.
For the President

Date: December 12

Time: 500pm

FOR ACTION: Glenn Schleede
George Humphreys
Ken Lazarus
Max Friedersdorf

cc (for information): Jack Marsh--
Jim Cavanaugh

FROM THE STAFF SECRETARY

DUE: Date: December 15

Time: 400pm

SUBJECT:

H.R. 6669 - Authorization for reclamation feasibility studies

ACTION REQUESTED:

For Necessary Action

For Your Recommendations

Prepare Agenda and Brief

Draft Reply

x

For Your Comments

Draft Remarks

REMARKS:

Please return to Judy Johnston, Ground Floor West Wing

12-15

Recommend approval.

G. Humphreys/pt

PLEASE ATTACH THIS COPY TO MATERIAL SUBMITTED.

If you have any questions or if you anticipate a delay in submitting the required material, please telephone the Staff Secretary immediately.

James H. [unclear]
For the [unclear]

MOM

Date: December 12

Time: 500pm

FOR ACTION: Glenn Schleede
George Humphreys
Ken Lazarus
Max Friedersdorf

cc (for information): Jack Marsh--
Jim Cavanaugh

FROM THE STAFF SECRETARY

DUE: Date: December 15

Time: 400pm

SUBJECT:

H.R. 6669 - Authorization for reclamation feasibility studies

ACTION REQUESTED:

- For Necessary Action
- For Your Recommendations
- Prepare Agenda and Brief
- Draft Reply
- For Your Comments
- Draft Remarks

REMARKS:

Please return to Judy Johnston, Ground Floor West Wing

I doubt that the definition of ERDA is as broad as you would expect.
Resound
Schleede

PLEASE ATTACH THIS COPY TO MATERIAL SUBMITTED.

If you have any questions or if you anticipate a delay in submitting the received material, please telephone the Staff Secretary immediately.

JAN 1 1973

THE WHITE HOUSE

WASHINGTON

December 15, 1975

MEMORANDUM FOR: JIM CAVANAUGH
FROM: MAX L. FRIEDERSDORF *m. fg.*
SUBJECT: H. R. 6669 - Authorization for reclamation
feasibility studies

The Office of Legislative Affairs concurs with the agencies
that the subject bill be signed.

Attachments

Date: December 12

Time: 500pm

FOR ACTION:

Glenn Schleede
George Humphreys
Ken Lazarus
Max Friedersdorf

cc (for information):

Jack Marsh--
Jim Cavanaugh

FROM THE STAFF SECRETARY

DUE: Date: December 15

Time: 400pm

SUBJECT:

H.R. 6669 - Authorization for reclamation feasibility studies

ACTION REQUESTED:

For Necessary Action

For Your Recommendations

Prepare Agenda and Brief

Draft Reply

x

For Your Comments

Draft Remarks

REMARKS:

Please return to Judy Johnston, Ground Floor West Wing

*I don't think
the duplication problem
noted by ERDA is serious.
Kenneth
Schleede*

PLEASE ATTACH THIS COPY TO MATERIAL SUBMITTED.

If you have any questions or if you anticipate a delay in submitting the required material, please telephone the Staff Secretary immediately.

James H. Cavanaugh
Staff Secretary

THE WHITE HOUSE

MEMORANDUM

WASHINGTON

LOG NO.:

Date: December 12

Time: 500pm

FOR ACTION:

Glenn Schleede
George Humphreys
Ken Lazarus
Max Friedersdorf

cc (for information):

Jack Marsh--
Jim Cavanaugh

FROM THE STAFF SECRETARY

DUE: Date: December 15

Time: 400pm

SUBJECT:

H.R. 6669 - Authorization for reclamation feasibility studies

ACTION REQUESTED:

For Necessary Action

For Your Recommendations

Prepare Agenda and Brief

Draft Reply

For Your Comments

Draft Remarks

REMARKS:

Please return to Judy Johnston, Ground Floor West Wing

No objection.

Ken Lazarus

PLEASE ATTACH THIS COPY TO MATERIAL SUBMITTED.

If you have any questions or if you anticipate a delay in submitting the required material, please telephone the Staff Secretary immediately.

James G. Thompson
For the Staff Secretary

RECLAMATION FEASIBILITY STUDIES 1975

NOVEMBER 26, 1975.—Ordered to be printed

Filed under authority of the order of the Senate of November 20, 1975

Mr. CHURCH, from the Committee on Interior and Insular Affairs,
submitted the following

REPORT

[To accompany H.R. 6669]

The Committee on Interior and Insular Affairs, to which was referred the bill (H.R. 6669) to authorize the Secretary of the Interior to engage in feasibility investigations of certain potential water resource developments, having considered the same, reports favorably thereon with an amendment to the text and recommends that the bill as amended do pass.

The amendment is as follows:

On page 3, after line 5, add the following new clause:

(1) A comprehensive resource analysis adequate to determine the feasibility of a geothermal energy utility system for the City of Susanville, California, and to initiate reconnaissance level studies of similar undertakings which may be requested by public entities in the future.

PURPOSE OF THE MEASURE

The purpose of the measure is to authorize the Secretary of the Interior to undertake feasibility investigations of twelve water and/or energy resource projects. This specific authority is required to permit the orderly continuation of the Bureau of Reclamation's program of investigations leading to recommendation for authorization of water and related development projects.

BACKGROUND AND NEED

Section 8 of the Federal Water Project Recreation Act (Public Law 89-72, 79 Stat. 213) provides:

SEC. 8. Effective on and after July 1, 1966, neither the Secretary of the Interior nor any bureau nor any person act-

ing under his authority shall engage in the preparation or any feasibility report under reclamation law with respect to any water resource project unless the preparation of such feasibility report has been specifically authorized by law, any other provision of law to the contrary notwithstanding.

Enactment of H.R. 6669 would provide the authority required by P.L. 89-72 for the feasibility grade studies enumerated in the text of the bill. Under present law, the Department of the Interior has authority to undertake reconnaissance studies and basin surveys without securing specific Congressional authorization. Authority to undertake feasibility studies or to initiate construction of a project, however, requires specific Congressional authorization.

LEGISLATIVE HISTORY

H.R. 6669 was introduced on May 5, 1975, by Mr. Johnson of California and in effect is a consolidation of several House bills which would have authorized feasibility investigations on an individual basis. The measure was reported to the House on September 15, 1975, whereupon it was passed on October 7, 1975.

Companion measures in the Senate which correspond to subparagraphs of H.R. 6669 are S. 1530, introduced by Senator Bellmon on April 25, S. 1686 introduced by Senators Young and Burdick on May 8, S. 1751 and S. 1752 introduced by Senator Jackson on May 15, S. 1902 introduced by Senator Fannin on June 9, S. 1979 introduced by Senator Curtis on June 19, and S. 2013 introduced by Senator Hansen on June 25. The individual Senate bills and corresponding subsections of H.R. 6669 are identified in the section-by-section analysis.

COMMITTEE RECOMMENDATION AND TABULATION OF VOTES

The Senate Committee on Interior and Insular Affairs, in open business session on November 20, 1975, by unanimous vote of a quorum present recommends that the Senate adopt H.R. 6669 as amended as described herein.

COMMITTEE AMENDMENT

The Committee on Interior and Insular Affairs adopted one amendment to H.R. 6669. This amendment authorizes a study of a geothermal energy utility system for the City of Susanville, California, and authorities reconnaissance level studies of similar potential undertakings by municipalities.

Susanville, population 7,000, is located 320 miles northeast of San Francisco. It is a rural community and serves as a center for agriculture and the lumber industry. Unemployment exceeds 20 percent.

The Susanville Project seeks to assess the feasibility of using geothermal energy as an integral part of the community's utility system providing process or industrial heat as well as electricity. The project will investigate several energy producing and distribution systems to determine their economic feasibility and operating costs and will serve as a model and prototype for other communities. An estimated 160 communities in the 13 western States may be able to apply proj-

ect results to similar situations and six local governmental entities are already participating in an exchange of data with Susanville. They are Boise-Idaho, Carson River Basin Council of Governments—Nevada, City of Fillmore—California, Lakeport-California, Skamania County—Washington, and Union County—California.

An essential element for the Susanville Project is the assessment and evaluation of geothermal resources in the area. The Department of the Interior's Bureau of Reclamation, experienced in geothermal resource investigation and evaluation in the Imperial Valley in Southern California, undertook a reconnaissance level assessment of the geothermal resources in the Susanville area beginning in the fall of 1974. Preliminary data is encouraging and merits Congressional authorization for a full-scale resource assessment program in the area by the Bureau to determine the feasibility of utilizing geothermal energy.

Such an assessment and evaluation program would include geophysical, geochemical, and geological investigations. A series of test wells would be drilled to depths up to 5,000 feet in conjunction with resistivity surveys, analysis of gravity anomalies and evaluation of temperature gradient data and infrared imagery. The investigation would require up to two years at an estimated cost of \$1,000,000.

Of particular note is the Committee's concern that where similar resource potentials are recognized by communities or other public entities, they should be able to avail themselves of the expertise developed by the Bureau of Reclamation in the preparation of reconnaissance level studies.

SECTION-BY-SECTION ANALYSIS

Adequate reconnaissance level studies for the potential projects have been made and indicate that feasibility investigations are warranted. The appropriation of funds would be made pursuant to general authority for the investigation program.

The proposed authorizations would include the following: Paragraph (a)—Power Intertie Potentials: This study is designed to evaluate the benefits, revenues, and costs that would result from integrating loads and resources between major river basin transmission systems by means of power interties in the seventeen western States. Power interties have the potential of alleviating future electric power shortages by enabling expanded use of existing and additional generating capacity by effectively utilizing seasonal surpluses or conserving fossil fuels. Total estimated cost of the one year study is \$300,000.

Paragraph (b)—Boulder Canyon (S. 1902): This study would investigate the potential for addition of hydroelectric generating units at Hoover Powerplant on the Arizona-California border including both conventional hydroelectric units and reversible pumped-shortage hydroelectric units. Total estimated cost of the three year study is \$700,000.

Paragraph (c)—Minidoka: This study would investigate the rehabilitation or replacement of existing hydroelectric generating units at the Minidoka Powerplant in Idaho and the provision of additional generating capacity. Reconnaissance level investigations indicate that a potential increase in generating capacity of 16,600 kilowatts may be realized. The study is expected to cost \$200,000 and require 18 months.

Paragraph (d)—Mora River Basin: This study would investigate

the potential for multi-purpose water resource development in the headwaters of the Mora River Basin, New Mexico. Included as project purposes are irrigation, fish and wildlife benefits, and recreation. The study will require four years and an estimated \$400,000.

Paragraph (e)—Yakima (S. 1751): This study would examine the potential for the integration of three previously studied multi-purpose projects; the Mabton and Toppenish-Simco projects on the Yakima Indian Reservation, and the nearby Ahtanum Creek project, in Washington State. Potential benefits include recreation, fish and wildlife, flood control, and irrigation water to serve over 33,000 acres. The study will require three years at an estimated cost of \$350,000.

Paragraph (f)—Columbia Northside (S. 1752): This study would examine the potential for the construction of a major multi-purpose pumped storage site in Washington State which would have as potential benefits an estimated 1,500 megawatts generating capacity, irrigation of up to 20,000 acres, and the provision of municipal and industrial water for the towns of White Salmon and Bingen. Of particular note is the proposal to remove an existing dam thereby opening up 25 miles of stream for salmon and steelhead trout habitat. The study will require four years at an estimated cost of \$800,000.

Paragraph (g)—Seward (S. 1530): This study would examine the potential for a multi-purpose dam and reservoir in Oklahoma. Included as project purposes are municipal and industrial water for the rapidly expanding urban area just north of Oklahoma City, flood control, fish and wildlife, and recreation. The study will require three years at an estimated cost of \$300,000.

Paragraph (h)—Frenchman-Cambridge (S. 1979): This study would examine the feasibility of alternatives for alleviating water shortages occurring in the 45,000 acre Frenchman-Cambridge Irrigation District in Nebraska. Potential measures include reduction of distribution losses, irrigation management, and development of additional storage. The study will require four years at an estimated cost of \$427,000.

Paragraph (i)—Upper Canadian River Basin: This study would investigate the potential for the development of municipal and industrial water supplies for the City of Raton in New Mexico. The study will require three years at an estimated cost of \$400,000.

Paragraph (j)—Versippi Unit (S. 1686): This study will examine the feasibility of the potential Versippi Damsite on the Green River in North Dakota as a source of municipal and industrial water for the City of Dickinson. A reservoir at Versippi could provide a firm water yield of 6,000 acre feet annually, estimated to be an adequate supply for the City of Dickinson through the year 2025. The Versippi site could also provide fish, wildlife, flood control, and recreational benefits. The study will require one year at an estimated cost of \$100,000.

Paragraph (k)—Muddy Ridge (S. 2013): This study will examine the feasibility of placing an additional 18,000 acres of land under irrigation as an extension of the Riverton unit, Pick-Sloan Missouri River Basin program, Wyoming. The Riverton project was initially authorized in 1918 and construction of various project features have continued to date. The proposed Muddy Ridge unit would be served by existing capacity and regulatory features included in the Riverton unit

in anticipation of the proposed expansion. The study will require three years at an estimated cost of \$250,000.

Paragraph (1)—Susanville: See "Committee Amendment."

COST AND BUDGETARY CONSIDERATIONS

The estimated total cost associated with the feasibility studies authorized by H.R. 6669 as amended, is \$5,227,000. It is estimated that expenditures could occur over a five to ten year period subject to budgetary constraints and Administration and Congressional support for the individual studies.

EXECUTIVE COMMUNICATIONS

The legislative reports and communications received by the Committee from the Office of Management and Budget and from the Department of the Interior setting forth Executive agency recommendations relating to H.R. 6669 are set forth below:

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., May 19, 1975.

HON. HAROLD T. JOHNSON,
Chairman, Subcommittee on Water and Power Resources, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request for the views of this Department with respect to eleven bills, all of which authorize the Secretary of Interior to conduct feasibility studies for potential water resource developments. The bills are as follows: H.R. 6669, is an omnibus bill which includes the substance of all the remaining bills and provides for feasibility study authorities for the following potential projects:

- (a) Power intertie potentials for the purpose of improving electric power transmission systems affecting the 17 Western States. (H.R. 5813)
- (b) The Boulder Canyon Project modification, located at the existing Hoover Dam, at the Arizona-Nevada boundary on the Colorado River, in Mohave County, Arizona, and Clark County, Nevada. (H.R. 6009)
- (c) The Minidoka Project, Minidoka powerplant rehabilitation and enlargement, located at the existing Minidoka Dams, powerplant, and reservoir on the Snake River in Minidoka, Cassia, and Blain Counties, Idaho. (H.R. 6411)
- (d) The Mora River Basin in Mora County, New Mexico. (H.R. 5850)
- (e) The Yakima Project, Yakima Indian Reservation near the Yakima River in Yakima and Klickitat Counties, Washington. (H.R. 6236)
- (f) The Columbia Northside Project, White Salmon Division, located along the White Salmon River at Klickitat and Skamania Counties, Washington. (H.R. 6237)
- (g) The Seward Project, Logan and Oklahoma Counties, Oklahoma. (H.R. 4922)

(h) The Frenchman-Cambridge Division, Pick-Sloan Missouri Basin Program, Chase, Hitchcock, Hayes, Frontier, Red Willow, Furnas, and Harlan Counties, Nebraska. (H.R. 6620)

(i) The Upper Canadian River Basin, Colfax County, New Mexico. (H.R. 6671)

(j) The Versippi Unit, Heart Division, Pick-Sloan Missouri Basin Program Start and Dunn Counties, North Dakota. (H.R. 6653)

With respect to each study, all reasonable sources of supply and alternative projects would be studied, and consideration would be given to flood control, recreation, fish and wildlife, and other environmental potentials as project purposes to the extent applicable. All relevant local and national governing agencies, and private entities would be consulted. Feasibility studies would be conducted under the guidelines of the Water Resources Council's Principles and Standards for Planning Water and Related Land Resources.

The Administration has not developed a position with respect to these bills. When a position is developed, we will be able to furnish it to the Committee.

Each of the proposed projects is discussed individually hereinafter.

H.R. 5813

The Power Intertie Study

H.R. 5813 would authorize feasibility studies of potential electric power transmission system improvements in a broad area within the 17 Western States. The purpose of this feasibility investigation is to evaluate the benefits, revenues, and costs that will result from integrating loads and resources between certain major river basin transmission systems by means of power interties in the Western United States.

Power interties are designed to help alleviate future electric power crises and to enable expanded and more flexible use of existing and added generating capabilities.

The study program would include consideration of potential power interties in the Western States which would assist Federal, public, and private power suppliers to serve their customers' load requirements at a lower cost, as well as result in conservation of resources. The total estimated cost of the study is \$300,000, and the period of study is estimated at 1 year.

Both public and private entities would be fully involved in the study.

In the mid-sixties, Bureau of Reclamation studies led to authorization in 1964 of the Pacific Northwest-Pacific Southwest Intertie, which was constructed by various private, public, and Federal entities, and is now operational.

In 1967 and 1968, a Department of the Interior team, composed of representatives of the Bureau of Reclamation, the Bonneville Power Administration, and the Southwestern Power Administration, completed a study of the Western power systems to demonstrate the benefits of interconnecting high-voltage transmission lines as called for in the 1964 National Power Survey of the Federal Power Commission. The study indicated that the benefit-cost ratio of alternative plans ranged from 1.3 to 1 and 1.9 to 1. Benefits discussed included load

diversity, secondary energy sales, possible installation of larger units, transmission savings, improved reliability, and emergency interchanges of power between areas.

In addition, detailed data from a preliminary appraisal in March 1975 indicated oil and monetary savings could be achieved by displacing oil-fired generation in the Western Systems Coordinating Council area with excess generation in the Mid-Continent Area Reliability Coordination Agreement (MARCA) area. Current projections indicate the MARCA area may be capable of generating enough excess energy to conserve 23.9 million barrels of oil and save \$245.3 million in 1983.

H.R. 6009

Boulder Canyon Project

H.R. 6009 would authorize feasibility studies of the potential Boulder Canyon Project modification to increase the hydroelectric power peaking capacity by adding generating units at the existing Hoover Dam, located on the Arizona-Nevada boundary on the Colorado River in Mohave County, Arizona, and Clark County, Nevada.

Proposed study considerations include:

1. Effect of construction and operation of the potential modification on the fisheries of Lake Mead region.
2. A determination of the amount of river channel excavation required.
3. Possible revisions to the downstream Lake Mohave operating criteria to allow storage capacity for water reregulation.
4. An evaluation of the value of proposed generating capacity additions.
5. Environmental impact studies, including consideration of any proposed transmission lines.
6. An analysis of the integration of the proposed additional generating capacity with operation of the existing powerplant.

The total estimated cost of the potential 3-year feasibility investigation would be \$700,000 with a first-year funding of \$100,000 required.

A preliminary investigation of additional generating capacity at Hoover Powerplant was completed in April 1973. The investigation indicated that it was technically and economically feasible to increase the peaking capacity at Hoover Powerplant by an additional 1,000 megawatts at a total estimated cost of \$165,000,000 (January 1973 prices). During the study a variety of possible modifications were considered including both conventional hydroelectric units and reversible pumped-storage hydroelectric units.

This study indicated the need for large quantities of peaking capacity in the Pacific Southwest. Thus, additional generating units at Hoover Powerplant could play a part in meeting the overall energy requirements for the 1980's.

H.R. 6411

Minidoka Powerplant Project

The primary purpose of H.R. 6411 would be to evaluate the feasibility of rehabilitating or replacing the old power units and providing additional generating capacity at the existing Minidoka Powerplant on the Snake River. The existing installed capacity of 13,400 kilowatts

(kW) could be increased to about 30,000 kW. The need for new recreation facilities at Lake Walcott (the reservoir formed by Minidoka Dam) would be studied. Wildlife enhancement, water quality, and fishery aspects also would be considered.

Minidoka Dam and Powerplant were the key features of the initial development of the Minidoka Project, one of the earliest Bureau of Reclamation projects. The dam, located on the Snake River, serves as a combined diversion, storage, and power dam. Construction of the dam began in 1904 and was completed in 1906.

The original concrete powerhouse was completed in 1909. It forms a part of the right (north) side of the dam and contains six units. A separate powerplant addition with one generating unit was completed in 1942.

The feasibility of replacing some or all of the older units at the time of enlargement would be studied. The possibility of peaking operations and downstream reregulation also could be considered.

The alternative of constructing a new powerhouse in order to permit continued generation by the existing units during the construction period would be explored. Some drilling would be required to determine geologic site conditions at the potential new location.

Preliminary 1975 reconnaissance data and evaluations indicate a project benefit-cost ratio of 1.5 to 1.0 at an interest rate of 5 $\frac{7}{8}$ percent. The project's total estimated cost was \$12,800,000 with all costs being allocated to the hydropower function which includes an enlarged generating capacity of 16,000 kW. Recreation, and possibly wildlife enhancement, also would be analyzed. The total estimated cost of the study is \$200,000 of which \$125,000 would be required in the first year. A 1 $\frac{1}{2}$ year study is proposed.

H.R. 6236

Yakima Project

H.R. 6236 would authorize feasibility studies of the irrigation and related outdoor recreation, flood control, fish and wildlife, and area redevelopment potentials, of the Yakima Indian Reservation region in south-central Washington in the vicinity of the Yakima River. Major population centers on the reservation are Wapato, Toppenish, White Swan, Harrah, Brownstown, and Parker. The total Indian population is over 5,000. Non-Indian cities in the immediate area are Yakima, Granger, and Union Gap with population totaling about 50,000.

The proposed investigation combines the results of three previous studies, including two sponsored by the Bureau of Indian Affairs (BIA), to develop the Mabton and Toppenish-Simcoe Projects within the Yakima Indian Reservation, and our appraisal and feasibility level studies of the potential Ahtanum Unit, Yakima Project. Therefore, the objective of this study is to combine the viable aspects of the above three studies into a single, updated proposal for consideration by the Congress. The total estimated cost of the proposed 3-year feasibility investigation is \$350,000 with a first-year funding requirement of \$100,000.

The combined project would potentially irrigate 19,800 acres of Indian and 13,400 acres of non-Indian lands; provide 600,000 recrea-

tion days annually under initial use condition; enhance fishing and hunting to the extent of up to 258,000 man-days of use per year, as well as provide significant flood control and area redevelopment benefits. A reformulation evaluation combining the functions of the three individual projects as units indicates a benefit-cost ratio of 1.11 to 1.0.

The BIA has developed plans to construct the Mabton and Toppenish-Simcoe Projects within the Yakima Indian Reservation. These potential projects adjoin the operating Wapato Indian Project. The Mabton plan proposes development of a reservoir on Satus Creek to provide storage for irrigation of about 2,800 acres, outdoor recreation, flood control, and improvement of fish and wildlife resources. Approximately 98 percent of the land in the proposed project is under Indian-ownership. A planning report was prepared on this project by BIA in May 1969.

The Toppenish-Simcoe Project proposes construction of a dam and reservoir on Simcoe Creek to provide storage for irrigation of about 14,000 acres, fish and wildlife, outdoor recreation, and flood control. About 80 percent of the land proposed for irrigation is under Indian-ownership. The BIA prepared a planning report on the project in October 1967.

The Bureau of Reclamation has studied the possibility of developing storage of Ahtanum Creek, which is located on the north boundary of the Yakima Indian Reservation, to irrigate over 5,800 acres of Indian-owned land and 10,600 acres of non-Indian land, to provide flood control, recreational opportunities, and a trout fishery. Extremely dry conditions during the summer of 1973 followed by severe flooding in January 1974 focused attention on the three potential projects.

H.R. 6237

Columbia Northside Project

H.R. 6237 would authorize feasibility studies of water resource development potentials along the White Salmon River in Klickitat and Skamania Counties, Washington.

The purpose of the feasibility investigation would be to:

1. Formulate a viable plan for developing offstream storage in the White Salmon River drainage area: (a) provide the hydrologic and physical setting for a pumped-storage hydroelectric generating complex with an estimated capacity of 1,500 megawatts to be developed in conjunction with a public utility district or some other non-Federal entity; (b) provide an irrigation water supply to develop fruit orchards on 10,000 to 20,000 acres in the area; and (c) supply municipal and industrial water to the towns of White Salmon and Bingen. This storage would also provide a base of water-oriented recreation, fishery resource, and incidental flood control.

2. Formulate an environmentally acceptable plan for removing the Condit Dam from the White Salmon River to open 25 miles of main river fishery habitat to salmon and steelhead trout.

Results of a February 1974 appraisal report on the subject indicated a benefit-cost ratio of 1.84 to 1.0 to an interest rate of 5 $\frac{1}{2}$ percent of January 1972 price levels.

The total estimated cost of the potential 4-year feasibility investigation is \$800,000 with a first-year funding requirement of \$100,000.

Five alternative plans for development of the area's resources have been investigated at the appraisal level. The White Salmon River and tributaries would be utilized as the water supply. The plans include various combinations of pumping directly from the river and diverting to offstream storage reservoirs to serve multiple-purposes. The plans address themselves to various levels of fishery enhancement; hydroelectric power generation (pumped-storage concept); domestic, municipal, and industrial water supply, and recreation, irrigation, and flood control.

A brief description of one of the plans studied and the one for which the above-mentioned benefit-cost ratio of 1.84 to 1.0 has been estimated includes: program goals for hydropower of 1,500 MW as described below; 12,000 acres of full irrigation service; 60,000 angler days per year and 267,000 pounds per year of commercial fish harvest; incidental flood control benefits; 20,000 visitor days per year of outdoor recreation; and 500 acre-feet per year of municipal and industrial water supplies. The total estimated project cost does not include the cost of power generation facilities which are assumed to be absorbed by non-Federal interests.

In this plan Condit Dam on the White Salmon River would be removed, opening 25 miles of main river fishery habitat to salmon and steelhead trout. Peak flows in the river, which hamper migration of the fish, would be diverted to an offstream storage complex. This offstream storage capability would: (1) supply municipal and industrial water to the towns of White Salmon and Bingen; (2) provide an outstanding site for a pumped-storage hydroelectric generating complex with an estimated capacity of 1,500 MW to be developed in conjunction with the Klickitat County Public Utility District No. 1 or some other non-Federal power entity; (3) create a surface area adequate to provide cooling for a nuclear-thermal generating complex at some future time; (4) provide a base for water-oriented general recreation activities and a sport fishery; and (5) provide a water supply adequate to irrigate 12,000 acres of apple and pear orchards.

H.R. 4922

Seward Project

H.R. 4922 would authorize feasibility studies of water resource development proposals for central Oklahoma and the cities of Guthrie and Edmond, and other communities.

Any feasibility study would have to proceed with an initial focus on the ground water capabilities in the area. There would be constant cooperation with the Corps of Engineers, the Association of Central Oklahoma Governments, Oklahoma City, and the Oklahoma Water Resources Board in order to continuously evaluate the need for the Seward Project.

A December 1974 appraisal level report focused on a potential Seward Dam and Reservoir, to be located about 1 miles west of Seward, Oklahoma, in Logan County. That dam would create a reservoir with a storage capacity of about 201,000 acre-feet at top flood control pool, and a water surface area covering about 10,200 acres.

The benefit-cost ratio of the Seward plan has been estimated at 1.3 to 1.0 in an evaluation which utilized an interest rate of 5 $\frac{3}{8}$ percent.

The cost of feasibility investigations is estimated at \$300,000, with \$75,000 required in the first year. This investigation would take 3 years to complete.

We note, however, that the Corps of Engineers is currently exploring several projects which could be alternatives to the Seward Project, and the ground water situation in the area is not yet adequately known for long term municipal and industrial water supply needs.

H.R. 6620

The Frenchman-Cambridge Project

H.R. 6620 would authorize feasibility investigations of a supplemental water supply for the Frenchman-Cambridge Division. Pick-Sloan Missouri Basin Program, located in Chase, Hitchcock, Hayes, Frontier, Red Willow, Furnas, and Harland Counties in southwest Nebraska. An appraisal report on the potential project is scheduled for completion in June 1975.

The goal of the potential plan would be to prevent a loss of water supply to 10,000 acres of presently irrigated land which may otherwise go out of production by year 2000 due to an insufficient water supply.

The purpose of the study would be to develop plans and implementation schedules to alleviate water shortages fed by continued depletions of the inflows into storage facilities of the Frenchman-Cambridge Division. The division consists of five units, operated by three irrigation districts. The Frenchman Valley Irrigation District has 9,600 irrigable acres, the H&RW Irrigation District has 11,490 acres and the Frenchman-Cambridge Irrigation District has 45,003 acres, a total of 66,093 irrigable acres. The inflow of the dam and reservoir serving the Frenchman Valley and H&RW Irrigation Districts has been reduced by substantial upstream ground-water development.

The alternatives to be considered would be:

1. Measures to reduce distribution system losses
2. Irrigation Management Services (IMS)
3. Development of additional storage facilities
4. No development

An eventual total solution to the water supply problem in the Republican and Frenchman River Valleys may depend upon actions of the State of Nebraska in providing needed legislation and guidance in management of the respective basins' ground water resources. The State should participate and provide legislative controls on the use of ground water in the upper basins in order to arrive at a meaningful plan for meeting and controlling current and future water supply deficiencies.

The total estimated cost of the plan is \$3,000,000 based on January 1974 price levels. The potential plan is currently estimated to have a benefit-cost ratio of 2.86 to 1.0 at an interest rate for evaluation of 5 $\frac{7}{8}$ percent.

The total cost of the potential feasibility investigation is estimated at \$427,000 with a first-year requirement of \$70,000. The study would require 4 years to complete.

Upper Canadian River Project

The purpose of the feasibility study proposed in H.R. 6671 is to develop detailed plans for satisfying the immediate and long-range municipal and industrial needs of the city of Raton, New Mexico. This investigation would include an environmental impact statement that would assess the environmental factors relating to the project.

Potential water resource that would be investigated include but are not limited to:

(1) the Upper Canadian River and its tributaries; (2) the Dry Cimarron River Basin, and (3) ground water resources in the vicinity of Capulin located about 30 miles east of Raton. Other water resource needs related to municipal and industrial requirements will be identified and evaluated.

Various consultants have generated information, obtained data, and completed studies relative to a water supply plan for the city of Raton, New Mexico. Thus, considerable appraisal level data is already available from which a feasibility study could be initiated. A feasibility study would evaluate all available studies and incorporate useful information in determining the economic, environmental, social, and physical feasibility of the proposed development.

Estimated cost of the study is \$400,000, and \$75,000 for the first year.

The Versippi Project

H.R. 6653 would authorize a study of the Versippi Unit, Heart Division, Pick-Sloan Missouri Basin Program, principally for the purpose of evaluating long-range water supply plans for the city of Dickinson, North Dakota.

Initiation of the study would be dependent on better indications that anticipated growth in the area will take place with the study designed toward providing long range water supply contingency plans.

A feasibility study now being accomplished by the Bureau of Reclamation should lead to a plan to supply Dickinson with adequate M&I water through 1985. Beyond that time frame a large project of the scale of the Versippi Unit will be required only if there is substantial development of the lignite coal reserves in the area of Dickinson.

The principal long-term alternative to the above mid-term plan is to secure additional water supplies from the potential Versippi Unit. The plan includes the Versippi damsite and reservoir on the Green River about 6 miles from Dickinson. It is estimated that a reservoir at the Versippi site could provide an adequate supply through year 2025. The estimated project cost is \$12,000,000 and the benefit-cost ratio is evaluated at about 1.5 to 1.0. The total estimated cost of the study is \$100,000. The study would require 1 year to complete. The Versippi site could also provide fish, wildlife, and recreational benefits, as well as some flood control.

The Mora Basin Project

H.R. 5850 would authorize feasibility studies of the water resources of the headwaters of the Mora River, in Mora County, New Mexico. We do not support the authorization of this feasibility study. From the "Mora Project Wrap-Up Report" prepared by the Bureau of Reclamation in January 1974, there is considerable opposition to any proposed development in the area. The report also estimates that more than 50 percent of the costs would need to be allocated for fish, wildlife and recreation, which exceeds the 50 percent limit placed on those purposes by Public Law 89-72.

The Office of Management and Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely yours,

JOHN H. KYL,
Assistant Secretary of the Interior.

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RECLAMATION FEASIBILITY STUDIES 1975

NOVEMBER 26, 1975.—Ordered to be printed
Filed under authority of the order of the Senate of November 20, 1975

Mr. CHURCH, from the Committee on Interior and Insular Affairs,
submitted the following

REPORT

[To accompany H.R. 6669]

The Committee on Interior and Insular Affairs, to which was referred the bill (H.R. 6669) to authorize the Secretary of the Interior to engage in feasibility investigations of certain potential water resource developments, having considered the same, reports favorably thereon with an amendment to the text and recommends that the bill as amended do pass.

The amendment is as follows:

On page 3, after line 5, add the following new clause:

(1) A comprehensive resource analysis adequate to determine the feasibility of a geothermal energy utility system for the City of Susanville, California, and to initiate reconnaissance level studies of similar undertakings which may be requested by public entities in the future.

PURPOSE OF THE MEASURE

The purpose of the measure is to authorize the Secretary of the Interior to undertake feasibility investigations of twelve water and/or energy resource projects. This specific authority is required to permit the orderly continuation of the Bureau of Reclamation's program of investigations leading to recommendation for authorization of water and related development projects.

BACKGROUND AND NEED

Section 8 of the Federal Water Project Recreation Act (Public Law 89-72, 79 Stat. 213) provides:

SEC. 8. Effective on and after July 1, 1966, neither the Secretary of the Interior nor any bureau nor any person act-

ing under his authority shall engage in the preparation or any feasibility report under reclamation law with respect to any water resource project unless the preparation of such feasibility report has been specifically authorized by law, any other provision of law to the contrary notwithstanding.

Enactment of H.R. 6669 would provide the authority required by P.L. 89-72 for the feasibility grade studies enumerated in the text of the bill. Under present law, the Department of the Interior has authority to undertake reconnaissance studies and basin surveys without securing specific Congressional authorization. Authority to undertake feasibility studies or to initiate construction of a project, however, requires specific Congressional authorization.

LEGISLATIVE HISTORY

H.R. 6669 was introduced on May 5, 1975, by Mr. Johnson of California and in effect is a consolidation of several House bills which would have authorized feasibility investigations on an individual basis. The measure was reported to the House on September 15, 1975, whereupon it was passed on October 7, 1975.

Companion measures in the Senate which correspond to subparagraphs of H.R. 6669 are S. 1530, introduced by Senator Bellmon on April 25, S. 1686 introduced by Senators Young and Burdick on May 8, S. 1751 and S. 1752 introduced by Senator Jackson on May 15, S. 1902 introduced by Senator Fannin on June 9, S. 1979 introduced by Senator Curtis on June 19, and S. 2013 introduced by Senator Hansen on June 25. The individual Senate bills and corresponding subsections of H.R. 6669 are identified in the section-by-section analysis.

COMMITTEE RECOMMENDATION AND TABULATION OF VOTES

The Senate Committee on Interior and Insular Affairs, in open business session on November 20, 1975, by unanimous vote of a quorum present recommends that the Senate adopt H.R. 6669 im amended as described herein.

COMMITTEE AMENDMENT

The Committee on Interior and Insular Affairs adopted one amendment to H.R. 6669. This amendment authorizes a study of a geothermal energy utility system for the City of Susanville, California, and authorities reconnaissance level studies of similar potential undertakings by municipalities.

Susanville, population 7,000, is located 320 miles northeast of San Francisco. It is a rural community and serves as a center for agriculture and the lumber industry. Unemployment exceeds 20 percent.

The Susanville Project seeks to assess the feasibility of using geothermal energy as an integral part of the community's utility system providing process or industrial heat as well as electricity. The project will investigate several energy producing and distribution systems to determine their economic feasibility and operating costs and will serve as a model and prototype for other communities. An estimated 160 communities in the 13 western States may be able to apply proj-

ect results to similar situations and six local governmental entities are already participating in an exchange of data with Susanville. They are Boise-Idaho, Carson River Basin Council of Governments—Nevada, City of Fillmore—California, Lakeport-California, Skamania County—Washington, and Union County—California.

An essential element for the Susanville Project is the assessment and evaluation of geothermal resources in the area. The Department of the Interior's Bureau of Reclamation, experienced in geothermal resource investigation and evaluation in the Imperial Valley in Southern California, undertook a reconnaissance level assessment of the geothermal resources in the Susanville area beginning in the fall of 1974. Preliminary data is encouraging and merits Congressional authorization for a full-scale resource assessment program in the area by the Bureau to determine the feasibility of utilizing geothermal energy.

Such an assessment and evaluation program would include geophysical, geochemical, and geological investigations. A series of test wells would be drilled to depths up to 5,000 feet in conjunction with resistivity surveys, analysis of gravity anomalies and evaluation of temperature gradient data and infrared imagery. The investigation would require up to two years at an estimated cost of \$1,000,000.

Of particular note is the Committee's concern that where similar resource potentials are recognized by communities or other public entities, they should be able to avail themselves of the expertise developed by the Bureau of Reclamation in the preparation of reconnaissance level studies.

SECTION-BY-SECTION ANALYSIS

Adequate reconnaissance level studies for the potential projects have been made and indicate that feasibility investigations are warranted. The appropriation of funds would be made pursuant to general authority for the investigation program.

The proposed authorizations would include the following: Paragraph (a)—Power Intertie Potentials: This study is designed to evaluate the benefits, revenues, and costs that would result from integrating loads and resources between major river basin transmission systems by means of power interties in the seventeen western States. Power interties have the potential of alleviating future electric power shortages by enabling expanded use of existing and additional generating capacity by effectively utilizing seasonal surpluses or conserving fossil fuels. Total estimated cost of the one year study is \$300,000.

Paragraph (b)—Boulder Canyon (S. 1902): This study would investigate the potential for addition of hydroelectric generating units at Hoover Powerplant on the Arizona-California border including both conventional hydroelectric units and reversible pumped-shortage hydroelectric units. Total estimated cost of the three year study is \$700,000.

Paragraph (c)—Minidoka: This study would investigate the rehabilitation or replacement of existing hydroelectric generating units at the Minidoka Powerplant in Idaho and the provision of additional generating capacity. Reconnaissance level investigations indicate that a potential increase in generating capacity of 16,600 kilowatts may be realized. The study is expected to cost \$200,000 and require 18 months.

Paragraph (d)—Mora River Basin: This study would investigate

the potential for multi-purpose water resource development in the headwaters of the Mora River Basin, New Mexico. Included as project purposes are irrigation, fish and wildlife benefits, and recreation. The study will require four years and an estimated \$400,000.

Paragraph (e)—Yakima (S. 1751): This study would examine the potential for the integration of three previously studied multi-purpose projects; the Mabton and Toppenish-Simco projects on the Yakima Indian Reservation, and the nearby Ahtanum Creek project, in Washington State. Potential benefits include recreation, fish and wildlife, flood control, and irrigation water to serve over 33,000 acres. The study will require three years at an estimated cost of \$350,000.

Paragraph (f)—Columbia Northside (S. 1752): This study would examine the potential for the construction of a major multi-purpose pumped storage site in Washington State which would have as potential benefits an estimated 1,500 megawatts generating capacity, irrigation of up to 20,000 acres, and the provision of municipal and industrial water for the towns of White Salmon and Bingen. Of particular note is the proposal to remove an existing dam thereby opening up 25 miles of stream for salmon and steelhead trout habitat. The study will require four years at an estimated cost of \$800,000.

Paragraph (g)—Seward (S. 1530): This study would examine the potential for a multi-purpose dam and reservoir in Oklahoma. Included as project purposes are municipal and industrial water for the rapidly expanding urban area just north of Oklahoma City, flood control, fish and wildlife, and recreation. The study will require three years at an estimated cost of \$300,000.

Paragraph (h)—Frenchman-Cambridge (S. 1979): This study would examine the feasibility of alternatives for alleviating water shortages occurring in the 45,000 acre Frenchman-Cambridge Irrigation District in Nebraska. Potential measures include reduction of distribution losses, irrigation management, and development of additional storage. The study will require four years at an estimated cost of \$427,000.

Paragraph (i)—Upper Canadian River Basin: This study would investigate the potential for the development of municipal and industrial water supplies for the City of Raton in New Mexico. The study will require three years at an estimated cost of \$400,000.

Paragraph (j)—Versippi Unit (S. 1686): This study will examine the feasibility of the potential Versippi Damsite on the Green River in North Dakota as a source of municipal and industrial water for the City of Dickinson. A reservoir at Versippi could provide a firm water yield of 6,000 acre feet annually, estimated to be an adequate supply for the City of Dickinson through the year 2025. The Versippi site could also provide fish, wildlife, flood control, and recreational benefits. The study will require one year at an estimated cost of \$100,000.

Paragraph (k)—Muddy Ridge (S. 2013): This study will examine the feasibility of placing an additional 18,000 acres of land under irrigation as an extension of the Riverton unit, Pick-Sloan Missouri River Basin program, Wyoming. The Riverton project was initially authorized in 1918 and construction of various project features have continued to date. The proposed Muddy Ridge unit would be served by existing capacity and regulatory features included in the Riverton unit.

in anticipation of the proposed expansion. The study will require three years at an estimated cost of \$250,000.

Paraphrase (1)—Susanville: See "Committee Amendment."

COST AND BUDGETARY CONSIDERATIONS

The estimated total cost associated with the feasibility studies authorized by H.R. 6669 as amended, is \$5,227,000. It is estimated that expenditures could occur over a five to ten year period subject to budgetary constraints and Administration and Congressional support for the individual studies.

EXECUTIVE COMMUNICATIONS

The legislative reports and communications received by the Committee from the Office of Management and Budget and from the Department of the Interior setting forth Executive agency recommendations relating to H.R. 6669 are set forth below:

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., May 19, 1975.

HON. HAROLD T. JOHNSON,
Chairman, Subcommittee on Water and Power Resources, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request for the views of this Department with respect to eleven bills, all of which authorize the Secretary of Interior to conduct feasibility studies for potential water resource developments. The bills are as follows: H.R. 6669, is an omnibus bill which includes the substance of all the remaining bills and provides for feasibility study authorities for the following potential projects:

- (a) Power intertie potentials for the purpose of improving electric power transmission systems affecting the 17 Western States. (H.R. 5813)
- (b) The Boulder Canyon Project modification, located at the existing Hoover Dam, at the Arizona-Nevada boundary on the Colorado River, in Mohave County, Arizona, and Clark County, Nevada. (H.R. 6009)
- (c) The Minidoka Project, Minidoka powerplant rehabilitation and enlargement, located at the existing Minidoka Dams, powerplant, and reservoir on the Snake River in Minidoka, Cassia, and Blain Counties, Idaho. (H.R. 6411)
- (d) The Mora River Basin in Mora County, New Mexico. (H.R. 5850)
- (e) The Yakima Project, Yakima Indian Reservation near the Yakima River in Yakima and Klickitat Counties, Washington. (H.R. 6236)
- (f) The Columbia Northside Project, White Salmon Division, located along the White Salmon River at Klickitat and Skamania Counties, Washington. (H.R. 6237)
- (g) The Seward Project, Logan and Oklahoma Counties, Oklahoma. (H.R. 4922)

(h) The Frenchman-Cambridge Division, Pick-Sloan Missouri Basin Program, Chase, Hitchcock, Hayes, Frontier, Red Willow, Furnas, and Harlan Counties, Nebraska. (H.R. 6620)

(i) The Upper Canadian River Basin, Colfax County, New Mexico. (H.R. 6671)

(j) The Versippi Unit. Heart Division, Pick-Sloan Missouri Basin Program Start and Dunn Counties, North Dakota. (H.R. 6653)

With respect to each study, all reasonable sources of supply and alternative projects would be studied, and consideration would be given to flood control, recreation, fish and wildlife, and other environmental potentials as project purposes to the extent applicable. All relevant local and national governing agencies, and private entities would be consulted. Feasibility studies would be conducted under the guidelines of the Water Resources Council's Principles and Standards for Planning Water and Related Land Resources.

The Administration has not developed a position with respect to these bills. When a position is developed, we will be able to furnish it to the Committee.

Each of the proposed projects is discussed individually hereinafter.

H.R. 5813

The Power Intertie Study

H.R. 5813 would authorize feasibility studies of potential electric power transmission system improvements in a broad area within the 17 Western States. The purpose of this feasibility investigation is to evaluate the benefits, revenues, and costs that will result from integrating loads and resources between certain major river basin transmission systems by means of power interties in the Western United States.

Power interties are designed to help alleviate future electric power crises and to enable expanded and more flexible use of existing and added generating capabilities.

The study program would include consideration of potential power interties in the Western States which would assist Federal, public, and private power suppliers to serve their customers' load requirements at a lower cost, as well as result in conservation of resources. The total estimated cost of the study is \$300,000, and the period of study is estimated at 1 year.

Both public and private entities would be fully involved in the study.

In the mid-sixties, Bureau of Reclamation studies led to authorization in 1964 of the Pacific Northwest-Pacific Southwest Intertie, which was constructed by various private, public, and Federal entities, and is now operational.

In 1967 and 1968, a Department of the Interior team, composed of representatives of the Bureau of Reclamation, the Bonneville Power Administration, and the Southwestern Power Administration, completed a study of the Western power systems to demonstrate the benefits of interconnecting high-voltage transmission lines as called for in the 1964 National Power Survey of the Federal Power Commission. The study indicated that the benefit-cost ratio of alternative plans ranged from 1.3 to 1 and 1.9 to 1. Benefits discussed included load

diversity, secondary energy sales, possible installation of larger units, transmission savings, improved reliability, and emergency interchanges of power between areas.

In addition, detailed data from a preliminary appraisal in March 1975 indicated oil and monetary savings could be achieved by displacing oil-fired generation in the Western Systems Coordinating Council area with excess generation in the Mid-Continent Area Reliability Coordination Agreement (MARCA) area. Current projections indicate the MARCA area may be capable of generating enough excess energy to conserve 23.9 million barrels of oil and save \$245.3 million in 1983.

H.R. 6009

Boulder Canyon Project

H.R. 6009 would authorize feasibility studies of the potential Boulder Canyon Project modification to increase the hydroelectric power peaking capacity by adding generating units at the existing Hoover Dam, located on the Arizona-Nevada boundary on the Colorado River in Mohave County, Arizona, and Clark County, Nevada.

Proposed study considerations include:

1. Effect of construction and operation of the potential modification on the fisheries of Lake Mead region.
2. A determination of the amount of river channel excavation required.
3. Possible revisions to the downstream Lake Mohave operating criteria to allow storage capacity for water reregulation.
4. An evaluation of the value of proposed generating capacity additions.
5. Environmental impact studies, including consideration of any proposed transmission lines.
6. An analysis of the integration of the proposed additional generating capacity with operation of the existing powerplant.

The total estimated cost of the potential 3-year feasibility investigation would be \$700,000 with a first-year funding of \$100,000 required.

A preliminary investigation of additional generating capacity at Hoover Powerplant was completed in April 1973. The investigation indicated that it was technically and economically feasible to increase the peaking capacity at Hoover Powerplant by an additional 1,000 megawatts at a total estimated cost of \$165,000,000 (January 1973 prices). During the study a variety of possible modifications were considered including both conventional hydroelectric units and reversible pumped-storage hydroelectric units.

This study indicated the need for large quantities of peaking capacity in the Pacific Southwest. Thus, additional generating units at Hoover Powerplant could play a part in meeting the overall energy requirements for the 1980's.

H.R. 6411

Minidoka Powerplant Project

The primary purpose of H.R. 6411 would be to evaluate the feasibility of rehabilitating or replacing the old power units and providing additional generating capacity at the existing Minidoka Powerplant on the Snake River. The existing installed capacity of 13,400 kilowatts

(kW) could be increased to about 30,000 kW. The need for new recreation facilities at Lake Walcott (the reservoir formed by Minidoka Dam) would be studied. Wildlife enhancement, water quality, and fishery aspects also would be considered.

Minidoka Dam and Powerplant were the key features of the initial development of the Minidoka Project, one of the earliest Bureau of Reclamation projects. The dam, located on the Snake River, serves as a combined diversion, storage, and power dam. Construction of the dam began in 1904 and was completed in 1906.

The original concrete powerhouse was completed in 1909. It forms a part of the right (north) side of the dam and contains six units. A separate powerplant addition with one generating unit was completed in 1942.

The feasibility of replacing some or all of the older units at the time of enlargement would be studied. The possibility of peaking operations and downstream reregulation also could be considered.

The alternative of constructing a new powerhouse in order to permit continued generation by the existing units during the construction period would be explored. Some drilling would be required to determine geologic site conditions at the potential new location.

Preliminary 1975 reconnaissance data and evaluations indicate a project benefit-cost ratio of 1.5 to 1.0 at an interest rate of 5 $\frac{7}{8}$ percent. The project's total estimated cost was \$12,800,000 with all costs being allocated to the hydropower function which includes an enlarged generating capacity of 16,000 kW. Recreation, and possibly wildlife enhancement, also would be analyzed. The total estimated cost of the study is \$200,000 of which \$125,000 would be required in the first year. A 1 $\frac{1}{2}$ year study is proposed.

H.R. 6236

Yakima Project

H.R. 6236 would authorize feasibility studies of the irrigation and related outdoor recreation, flood control, fish and wildlife, and area redevelopment potentials, of the Yakima Indian Reservation region in south-central Washington in the vicinity of the Yakima River. Major population centers on the reservation are Wapato, Toppenish, White Swan, Harrah, Brownstown, and Parker. The total Indian population is over 5,000. Non-Indian cities in the immediate area are Yakima, Granger, and Union Gap with population totaling about 50,000.

The proposed investigation combines the results of three previous studies, including two sponsored by the Bureau of Indian Affairs (BIA), to develop the Mabton and Toppenish-Simcoe Projects within the Yakima Indian Reservation, and our appraisal and feasibility level studies of the potential Ahtanum Unit, Yakima Project. Therefore, the objective of this study is to combine the viable aspects of the above three studies into a single, updated proposal for consideration by the Congress. The total estimated cost of the proposed 3-year feasibility investigation is \$350,000 with a first-year funding requirement of \$100,000.

The combined project would potentially irrigate 19,800 acres of Indian and 13,400 acres of non-Indian lands; provide 600,000 recrea-

tion days annually under initial use condition; enhance fishing and hunting to the extent of up to 258,000 man-days of use per year, as well as provide significant flood control and area redevelopment benefits. A reformulation evaluation combining the functions of the three individual projects as units indicates a benefit-cost ratio of 1.11 to 1.0.

The BIA has developed plans to construct the Mabton and Toppenish-Simcoe Projects within the Yakima Indian Reservation. These potential projects adjoin the operating Wapato Indian Project. The Mabton plan proposes development of a reservoir on Satus Creek to provide storage for irrigation of about 2,800 acres, outdoor recreation, flood control, and improvement of fish and wildlife resources. Approximately 98 percent of the land in the proposed project is under Indian-ownership. A planning report was prepared on this project by BIA in May 1969.

The Toppenish-Simcoe Project proposes construction of a dam and reservoir on Simcoe Creek to provide storage for irrigation of about 14,000 acres, fish and wildlife, outdoor recreation, and flood control. About 80 percent of the land proposed for irrigation is under Indian-ownership. The BIA prepared a planning report on the project in October 1967.

The Bureau of Reclamation has studied the possibility of developing storage of Ahtanum Creek, which is located on the north boundary of the Yakima Indian Reservation, to irrigate over 5,800 acres of Indian-owned land and 10,600 acres of non-Indian land, to provide flood control, recreational opportunities, and a trout fishery. Extremely dry conditions during the summer of 1973 followed by severe flooding in January 1974 focused attention on the three potential projects.

H.R. 6237

Columbia Northside Project

H.R. 6237 would authorize feasibility studies of water resource development potentials along the White Salmon River in Klickitat and Skamania Counties, Washington.

The purpose of the feasibility investigation would be to:

1. Formulate a viable plan for developing offstream storage in the White Salmon River drainage area: (a) provide the hydrologic and physical setting for a pumped-storage hydroelectric generating complex with an estimated capacity of 1,500 megawatts to be developed in conjunction with a public utility district or some other non-Federal entity; (b) provide an irrigation water supply to develop fruit orchards on 10,000 to 20,000 acres in the area; and (c) supply municipal and industrial water to the towns of White Salmon and Bingen. This storage would also provide a base of water-oriented recreation, fishery resource, and incidental flood control.

2. Formulate an environmentally acceptable plan for removing the Condit Dam from the White Salmon River to open 25 miles of main river fishery habitat to salmon and steelhead trout.

Results of a February 1974 appraisal report on the subject indicated a benefit-cost ratio of 1.84 to 1.0 to an interest rate of 5 $\frac{1}{2}$ percent of January 1972 price levels.

The total estimated cost of the potential 4-year feasibility investigation is \$800,000 with a first-year funding requirement of \$100,000.

Five alternative plans for development of the area's resources have been investigated at the appraisal level. The White Salmon River and tributaries would be utilized as the water supply. The plans include various combinations of pumping directly from the river and diverting to offstream storage reservoirs to serve multiple-purposes. The plans address themselves to various levels of fishery enhancement; hydroelectric power generation (pumped-storage concept); domestic, municipal, and industrial water supply, and recreation, irrigation, and flood control.

A brief description of one of the plans studied and the one for which the above-mentioned benefit-cost ratio of 1.84 to 1.0 has been estimated includes: program goals for hydropower of 1,500 MW as described below; 12,000 acres of full irrigation service; 60,000 angler days per year and 267,000 pounds per year of commercial fish harvest; incidental flood control benefits; 20,000 visitor days per year of outdoor recreation; and 500 acre-feet per year of municipal and industrial water supplies. The total estimated project cost does not include the cost of power generation facilities which are assumed to be absorbed by non-Federal interests.

In this plan Condit Dam on the White Salmon River would be removed, opening 25 miles of main river fishery habitat to salmon and steelhead trout. Peak flows in the river, which hamper migration of the fish, would be diverted to an offstream storage complex. This offstream storage capability would: (1) supply municipal and industrial water to the towns of White Salmon and Bingen; (2) provide an outstanding site for a pumped-storage hydroelectric generating complex with an estimated capacity of 1,500 MW to be developed in conjunction with the Klickitat County Public Utility District No. 1 or some other non-Federal power entity; (3) create a surface area adequate to provide cooling for a nuclear-thermal generating complex at some future time; (4) provide a base for water-oriented general recreation activities and a sport fishery; and (5) provide a water supply adequate to irrigate 12,000 acres of apple and pear orchards.

H.R. 4922

Seward Project

H.R. 4922 would authorize feasibility studies of water resource development proposals for central Oklahoma and the cities of Guthrie and Edmond, and other communities.

Any feasibility study would have to proceed with an initial focus on the ground water capabilities in the area. There would be constant cooperation with the Corps of Engineers, the Association of Central Oklahoma Governments, Oklahoma City, and the Oklahoma Water Resources Board in order to continuously evaluate the need for the Seward Project.

A December 1974 appraisal level report focused on a potential Seward Dam and Reservoir, to be located about 1 miles west of Seward, Oklahoma, in Logan County. That dam would create a reservoir with a storage capacity of about 201,000 acre-feet at top flood control pool, and a water surface area covering about 10,200 acres.

The benefit-cost ratio of the Seward plan has been estimated at 1.3 to 1.0 in an evaluation which utilized an interest rate of 5 $\frac{7}{8}$ percent.

The cost of feasibility investigations is estimated at \$300,000, with \$75,000 required in the first year. This investigation would take 3 years to complete.

We note, however, that the Corps of Engineers is currently exploring several projects which could be alternatives to the Seward Project, and the ground water situation in the area is not yet adequately known for long term municipal and industrial water supply needs.

H.R. 6620

The Frenchman-Cambridge Project

H.R. 6620 would authorize feasibility investigations of a supplemental water supply for the Frenchman-Cambridge Division. Pick-Sloan Missouri Basin Program, located in Chase, Hitchcock, Hayes, Frontier, Red Willow, Furnas, and Harland Counties in southwest Nebraska. An appraisal report on the potential project is scheduled for completion in June 1975.

The goal of the potential plan would be to prevent a loss of water supply to 10,000 acres of presently irrigated land which may otherwise go out of production by year 2000 due to an insufficient water supply.

The purpose of the study would be to develop plans and implementation schedules to alleviate water shortages fed by continued depletions of the inflows into storage facilities of the Frenchman-Cambridge Division. The division consists of five units, operated by three irrigation districts. The Frenchman Valley Irrigation District has 9,600 irrigable acres, the H&RW Irrigation District has 11,490 acres and the Frenchman-Cambridge Irrigation District has 45,003 acres, a total of 66,093 irrigable acres. The inflow of the dam and reservoir serving the Frenchman Valley and H&RW Irrigation Districts has been reduced by substantial upstream ground-water development.

The alternatives to be considered would be:

1. Measures to reduce distribution system losses
2. Irrigation Management Services (IMS)
3. Development of additional storage facilities
4. No development

An eventual total solution to the water supply problem in the Republican and Frenchman River Valleys may depend upon actions of the State of Nebraska in providing needed legislation and guidance in management of the respective basins' ground water resources. The State should participate and provide legislative controls on the use of ground water in the upper basins in order to arrive at a meaningful plan for meeting and controlling current and future water supply deficiencies.

The total estimated cost of the plan is \$3,000,000 based on January 1974 price levels. The potential plan is currently estimated to have a benefit-cost ratio of 2.86 to 1.0 at an interest rate for evaluation of 5 $\frac{7}{8}$ percent.

The total cost of the potential feasibility investigation is estimated at \$427,000 with a first-year requirement of \$70,000. The study would require 4 years to complete.

Upper Canadian River Project

The purpose of the feasibility study proposed in H.R. 6671 is to develop detailed plans for satisfying the immediate and long-range municipal and industrial needs of the city of Raton, New Mexico. This investigation would include an environmental impact statement that would assess the environmental factors relating to the project.

Potential water resource that would be investigated include but are not limited to:

(1) the Upper Canadian River and its tributaries; (2) the Dry Cimarron River Basin, and (3) ground water resources in the vicinity of Capulin located about 30 miles east of Raton. Other water resource needs related to municipal and industrial requirements will be identified and evaluated.

Various consultants have generated information, obtained data, and completed studies relative to a water supply plan for the city of Raton, New Mexico. Thus, considerable appraisal level data is already available from which a feasibility study could be initiated. A feasibility study would evaluate all available studies and incorporate useful information in determining the economic, environmental, social, and physical feasibility of the proposed development.

Estimated cost of the study is \$400,000, and \$75,000 for the first year.

The Versippi Project

H.R. 6653 would authorize a study of the Versippi Unit, Heart Division, Pick-Sloan Missouri Basin Program, principally for the purpose of evaluating long-range water supply plans for the city of Dickinson, North Dakota.

Initiation of the study would be dependent on better indications that anticipated growth in the area will take place with the study designed toward providing long range water supply contingency plans.

A feasibility study now being accomplished by the Bureau of Reclamation should lead to a plan to supply Dickinson with adequate M&I water through 1985. Beyond that time frame a large project of the scale of the Versippi Unit will be required only if there is substantial development of the lignite coal reserves in the area of Dickinson.

The principal long-term alternative to the above mid-term plan is to secure additional water supplies from the potential Versippi Unit. The plan includes the Versippi damsite and reservoir on the Green River about 6 miles from Dickinson. It is estimated that a reservoir at the Versippi site could provide an adequate supply through year 2025. The estimated project cost is \$12,000,000 and the benefit-cost ratio is evaluated at about 1.5 to 1.0. The total estimated cost of the study is \$100,000. The study would require 1 year to complete. The Versippi site could also provide fish, wildlife, and recreational benefits, as well as some flood control.

The Mora Basin Project

H.R. 5850 would authorize feasibility studies of the water resources of the headwaters of the Mora River, in Mora County, New Mexico. We do not support the authorization of this feasibility study. From the "Mora Project Wrap-Up Report" prepared by the Bureau of Reclamation in January 1974, there is considerable opposition to any proposed development in the area. The report also estimates that more than 50 percent of the costs would need to be allocated for fish, wildlife and recreation, which exceeds the 50 percent limit placed on those purposes by Public Law 89-72.

The Office of Management and Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely yours,

JOHN H. KYL,
Assistant Secretary of the Interior.

U

AUTHORIZING THE SECRETARY OF THE INTERIOR TO
ENGAGE IN FEASIBILITY INVESTIGATIONS OF CER-
TAIN POTENTIAL WATER RESOURCE DEVELOPMENTS

SEPTEMBER 15, 1975.—Committed to the Committee of the Whole House on the
State of the Union and ordered to be printed

Mr. HALEY, from the Committee on Interior and Insular Affairs,
submitted the following

REPORT

[To accompany H.R. 6669]

The Committee on Interior and Insular Affairs, to whom was referred the bill (H.R. 6669) To authorize the Secretary of the Interior to engage in feasibility investigations of certain potential water resource developments, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

The amendment is as follows: Page 2, following line 25, add the following:

“(k) Muddy Ridge Area, Riverton Unit, Pick-Sloan Missouri Basin Program, Fremont County, Wyoming.”

PURPOSE

The purpose of HR 6669¹ is to authorize the Secretary of the Interior to engage in feasibility investigations of 11 specific potential water and related land resource projects for development by the Bureau of Reclamation. A feasibility investigation is defined by law as any work leading to the preparation of a report intended to be used as basis for authorization of a Federal Reclamation project. The Federal Projects Recreation Act (79 Stat. 213) forbids the Secretary or anyone acting for him from engaging in such feasibility investigations unless such studies are specifically authorized by Congress.

¹ HR 6669 was introduced by Mr. Johnson of California for himself, Mr. Lujan and Mr. Don H. Clausen. Companion measures considered by the Committee in connection with this legislation are HR 5813 (Mr. Johnson of California); HR 6009 (Mr. Santini); HR 6411 (Mr. Hansen and Mr. Symms); HR 6236 (Mr. McCormack); HR 6237 (Mr. McCormack); HR 4922 (Mr. Risenhoover, Mr. Jarman and Mr. Steed); HR 6620 (Mrs. Smith of Nebraska); HR 6671 (Mr. Lujan); HR 6653 (Mr. Andrews of North Dakota); and HR 5850 (Mr. Lujan).

BACKGROUND

The Secretary of the Interior, acting through the Bureau of Reclamation, has organic authority to request funds with which to conduct feasibility investigations. Since the passage of the above-cited Federal Water Projects Recreation Act, he has been required to get special legislative authority to conduct such studies. It has been the practice of the Committee on Interior and Insular Affairs to consider such legislation when a sufficient number of proposals to warrant a bill have been introduced by Members of Congress or have been recommended by the Administration. Most years, but not necessarily every year, the Committee reports a bill of this character.

DISCUSSION OF LEGISLATION

The potential programs recommended for feasibility study in HR 6669, as reported by the Committee, have been investigated in sufficient detail at the reconnaissance level to establish probable feasibility for authorization and development. There follows on a subsection-by-subsection basis a brief discussion of each study, its location, scope and the current estimated cost in time and money of conducting the contemplated investigation:

Subsection (a)

The Power Intertie Study.—This study will consider the costs, benefits and revenues that will result from integrated loads and interconnected transmission systems of the several major river basin systems in the 17 Reclamation States and adjacent power market areas. The study will require about 1 year and will cost an estimated \$300,000.

Subsection (b)

Boulder Canyon Project.—This project will investigate the potentialities of increasing the installed capacity at Hoover Dam either in the form of additional conventional generating units or pumped storage units to increase system peaking capacity. The investigation will require 3 years at an estimated cost of \$700,000.

Subsection (c)

Minidoka Powerplant.—This study will consider the rehabilitation or replacement of the power units in the existing Minidoka Powerplant which dates back for more than 65 years. Opportunity exists to increase capacity from 13,400 kw to about 30,000 kw without increasing reservoir storage. The study will require 18 months and an estimated \$200,000.

Subsection (d)

Yakima Project.—This study will undertake to integrate and coordinate the viable elements of the potential Indian irrigation projects—the Mabton and Toppenish-Simcoe projects—and on the Yakima Indian Reservation in Central Washington with the nearby potential Ahatanum Reclamation project. These projects, as originally formulated by the Bureau of Indian Affairs and Reclamation, were not mutually supportable and compatible. The combined project will irrigate about 33,000 acres of predominantly Indian Land and is sup-

ported by Indian and non-Indian interests alike. The study will require 3 years and is estimated to cost \$350,000.

Subsection (e)

Columbia Northside Project.—This investigation will study a major off-stream storage reservoir in the White-Salmon River basin of south-central Washington as a site for a large, non-Federal, pumped storage power project and as a source of irrigation water for fruit orchards, fish and wildlife, recreation and municipal and industrial water. The reservoir could also provide a source of cooling water for a future non-Federal nuclear powerplant. The investigation will require 4 years at an estimated cost of \$800,000.

Subsection (f)

Seward Project.—This study will involve evaluation of a multiple-purpose reservoir in west-central Oklahoma for municipal and industrial water supply, flood control, fish and wildlife and recreation. It will require 3 years and an estimated cost of \$300,000.

Subsection (g)

Frenchman-Cambridge Division.—This study will investigate means of increasing and extending the water supply to the existing Frenchman-Cambridge division, Pick-Sloan Missouri Basin program in southwestern Nebraska. The project water supply has been depleted by upstream private development. Canal and lateral lining, improved irrigation management and replacement storage will all be investigated. The study will require 4 years and at an estimated cost of \$427,000.

Subsection (h)

Upper Canadian River.—This investigation will consider development of a reliable municipal water supply for the City of Raton in northern New Mexico. Both groundwater and surface water sources will be investigated. The study will require 3 years at an estimated cost of \$400,000.

Subsection (i)

The Versippi Unit.—This program will investigate the feasibility of a multiple-purpose reservoir on the Green River in western North Dakota as a source of municipal water supply for the City of Dickinson, North Dakota. The study will require about 1 year at an estimated cost of \$100,000.

Subsection (j)

The Mora River Basin.—This study will examine the opportunities to stabilize and enhance the depressed economy of the Mora River Basin in north-central New Mexico through development of a multiple-purpose reservoir for irrigation, fish and wildlife and recreation. In the conduct of this study the Committee expects that full attention will be given to the affirmative economic effects of construction and operation of the facilities and urges that such effects be quantified and included in the evaluation of the potential project. The study will require 4 years at an estimated cost of \$400,000.

Subsection (k) Muddy Ridge area

Riverton unit.—This study will examine the economic justification of a project to serve an additional 18,000 acres of land as an extension to the Riverton unit, Pick-Sloan Missouri River program, Wyoming. Capacity has been included in the facilities of the Riverton unit in anticipation of this development, and a regulated water supply is also available from existing facilities. The study will require about three years and the expenditure of \$250,000.

COMMITTEE AMENDMENTS

The Committee on Interior and Insular Affairs adopted one amendment to H.R. 6669. This amendment added subparagraph (k) to authorize a study of the Muddy Ridge area, Riverton unit, Pick-Sloan Missouri River program, Wyoming, as set forth above.

COSTS

The sum of the studies described in the foregoing section is \$4,207,000. This sum represents the Committee estimate of costs required to be presented by the Rules of the House. These costs will be incurred over an approximate 5 years span, depending upon budgetary considerations affecting the start of the individual studies.

IMPACT ON INFLATION

The Committee does not consider the impact of H.R. 6669 to be inflationary as it does not represent any acceleration of the investigation program of the Bureau of Reclamation. It simply provides for orderly continuation and evaluation of our water resource potentials at the same approximate level that has prevailed in recent years.

COMMITTEE RECOMMENDATION

The Interior and Insular Affairs Committee, by voice vote recommends that H.R. 6669 be enacted.

EXECUTIVE COMMUNICATION

The report of the Department of the Interior, which takes no position on the measure, is presented below in its entirety.

U.S. DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., May 19, 1975.

HON. HAROLD T. JOHNSON,
Chairman, Subcommittee on Water and Power Resources, House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request for the views of this Department with respect to eleven bills, all of which authorize the Secretary of Interior to conduct feasibility studies for potential water resource developments. The bills are as follows: H.R. 6669, is an omnibus bill which includes the substance of all the remain-

ing bills and provides for feasibility study authorities for the following potential projects:

(a) Power intertie potentials for the purpose of improving electric power transmission systems affecting the 17 Western States. (H.R. 5813)

(b) The Boulder Canyon Project modification, located at the existing Hoover Dam, at the Arizona-Nevada boundary on the Colorado River, in Mohave County, Arizona, and Clark County, Nevada. (H.R. 6009)

(c) The Minidoka Project, Minidoka powerplant rehabilitation and enlargement, located at the existing Minidoka Dam, powerplant, and reservoir on the Snake River in Minidoka, Cassia, and Blain Counties, Idaho. (H.R. 6411)

(d) The Mora River Basin in Mora County, New Mexico. (H.R. 5850)

(e) The Yakima Project, Yakima Indian Reservation near the Yakima River in Yakima and Klickitat Counties, Washington. (H.R. 6236)

(f) The Columbia Northside Project, White Salmon Division, located along the White Salmon River in Klickitat and Skamania Counties, Washington. (H.R. 6237)

(g) The Seward Project, Logan and Oklahoma Counties, Oklahoma. (H.R. 4922)

(h) The Frenchman-Cambridge Division, Pick-Sloan Missouri Basin Program, Chase, Hitchcock, Hayes, Frontier, Red Willow, Furnas, and Harlan Counties, Nebraska. (H.R. 6620)

(i) The Upper Canadian River Basin, Colfax County, New Mexico. (H.R. 6671)

(j) The Versippi Unit, Heart Division, Pick-Sloan Missouri Basin Program Start and Dunn Counties, North Dakota. (H.R. 6653)

With respect to each study, all reasonable sources of supply and alternative projects would be studied, and consideration would be given to flood control, recreation, fish and wildlife, and other environmental potentials as project purposes to the extent applicable. All relevant local and national governing agencies, and private entities would be consulted. Feasibility studies would be conducted under the guidelines of the Water Resources Council's Principles and Standards for Planning Water and Related Land Resources.

The Administration has not developed a position with respect to these bills. When a position is developed, we will be able to furnish it to the Committee.

Each of the proposed projects is discussed individually hereinafter.

H.R. 5813

The Power Intertie Study

H.R. 5813 would authorize feasibility studies of potential electric power transmission system improvements in a broad area within the 17 Western States. The purpose of this feasibility investigation is to evaluate the benefits, revenues, and costs that will result from integrating loads and resources between certain major river basin trans-

mission systems by means of power interties in the Western United States.

Power interties are designed to help alleviate future electric power crises and to enable expanded and more flexible use of existing and added generating capabilities.

The study program would include consideration of potential power interties in the Western States which would assist Federal, public, and private power suppliers to serve their customers' load requirements at a lower cost, as well as result in conservation of resources. The total estimated cost of the study is \$300,000, and the period of study is estimated at 1 year.

Both public and private entities would be fully involved in the study.

In the mid-sixties, Bureau of Reclamation studies led to authorization in 1964 of the Pacific Northwest-Pacific Southwest Intertie, which was constructed by various private, public, and Federal entities, and is now operational.

In 1967 and 1968, a Department of the Interior team, composed of representatives of the Bureau of Reclamation, the Bonneville Power Administration, and the Southwestern Power Administration, completed a study of the Western power systems to demonstrate the benefits of interconnecting high-voltage transmission lines as called for in the 1964 National Power Survey of the Federal Power Commission. The study indicated that the benefit-cost ratio of alternative plans ranged from 1.3 to 1 and 1.9 to 1. Benefits discussed included load diversity, secondary energy sales, possible installation of larger units, transmission savings, improved reliability, and emergency interchanges of power between areas.

In addition, detailed data from a preliminary appraisal in March 1975 indicated oil and monetary savings could be achieved by displacing oil-fired generation in the Western Systems Coordinating Council area with excess generation in the Mid-Continent Area Reliability Coordination Agreement (MARCA) area. Current projections indicate the MARCA area may be capable of generating enough excess energy to conserve 23.9 million barrels of oil and save \$245.3 million in 1983.

H.R. 6009

Boulder Canyon Project

H.R. 6009 would authorize feasibility studies of the potential Boulder Canyon Project modification to increase the hydroelectric power peaking capacity by adding generating units at the existing Hoover Dam, located on the Arizona-Nevada boundary on the Colorado River in Mohave County, Arizona, and Clark County, Nevada.

Proposed study considerations include:

1. Effect of construction and operation of the potential modification on the fisheries of Lake Mead region.
2. A determination of the amount of river channel excavation required.
3. Possible revisions to the downstream Lake Mohave operating criteria to allow storage capacity for water reregulation.
4. An evaluation of the value of proposed generating capacity additions.

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5. Environmental impact studies, including consideration of any proposed transmission lines.

6. An analysis of the integration of the proposed additional generating capacity with operation of the existing powerplant.

The total estimated cost of the potential 3-year feasibility investigation would be \$700,000 with a first-year funding of \$100,000 required.

A preliminary investigation of additional generating capacity at Hoover Powerplant was completed in April 1973. The investigation indicated that it was technically and economically feasible to increase the peaking capacity at Hoover Powerplant by an additional 1,000 megawatts at a total estimated cost of \$165,000,000 (January 1973 prices). During the study a variety of possible modifications were considered including both conventional hydroelectric units and reversible pumped-storage hydroelectric units.

This study indicated the need for large quantities of peaking capacity in the Pacific Southwest. Thus, additional generating units at Hoover Powerplant could play a part in meeting the overall energy requirements for the 1980's.

H.R. 6411

Minidoka Powerplant Project

The primary purpose of H.R. 6411 would be to evaluate the feasibility of rehabilitating or replacing the old power units and providing additional generating capacity at the existing Minidoka Powerplant on the Snake River. The existing installed capacity of 13,400 kilowatts (kW) could be increased to about 30,000 kW. The need for new recreation facilities at Lake Walcott (the reservoir formed by Minidoka Dam) would be studied. Wildlife enhancement, water quality, and fishery aspects also would be considered.

Minidoka Dam and Powerplant were the key features of the initial development of the Minidoka Project, one of the earliest Bureau of Reclamation projects. The dam, located on the Snake River, serves as a combined diversion, storage, and power dam. Construction of the dam began in 1904 and was completed in 1906.

The original concrete powerhouse was completed in 1909. It forms a part of the right (north) side of the dam and contains six units. A separate powerplant addition with one generating unit was completed in 1942.

The feasibility of replacing some or all of the older units at the time of enlargement would be studied. The possibility of peaking operations and downstream reregulation also could be considered.

The alternative of constructing a new powerhouse in order to permit continued generation by the existing units during the construction period would be explored. Some drilling would be required to determine geologic site conditions at the potential new location.

Preliminary 1975 reconnaissance data and evaluations indicate a project benefit-cost ratio of 1.5 to 1.0 at an interest rate of 5 $\frac{7}{8}$ percent. The project's total estimated cost was \$12,800,000 with all costs being allocated to the hydropower function which includes an enlarged generating capacity of 16,600 kW. Recreation, and possibly wildlife enhancement, also would be analyzed. The total estimated cost of the study is \$200,000 of which \$125,000 would be required in the first year. A 1 $\frac{1}{2}$ year study is proposed.

H.R. 482

Yakima Project

H.R. 6236 would authorize feasibility studies of the irrigation and related outdoor recreation, flood control, fish and wildlife, and area redevelopment potentials, of the Yakima Indian Reservation region in south-central Washington in the vicinity of the Yakima River. Major population centers on the reservation are Wapato, Toppenish, White Swan, Harrah, Brownstown, and Parker. The total Indian population is over 5,000. Non-Indian cities in the immediate area are Yakima, Granger, and Union Gap with population totaling about 50,000.

The proposed investigation combines the results of three previous studies, including two sponsored by the Bureau of Indian Affairs (BIA), to develop the Mabton and Toppenish-Simcoe Projects within the Yakima Indian Reservation, and our appraisal and feasibility level studies of the potential Ahtanum Unit, Yakima Project. Therefore, the objective of this study is to combine the viable aspects of the above three studies into a single, updated proposal for consideration by the Congress. The total estimated cost of the proposed 3-year feasibility investigation is \$350,000 with a first-year funding requirement of \$100,000.

The combined project would potentially irrigate 19,800 acres of Indian and 13,400 acres of non-Indian lands; provide 600,000 recreation days annually under initial use condition; enhance fishing and hunting to the extent of up to 258,000 man-days of use per year, as well as provide significant flood control and area redevelopment benefits. A reformulation evaluation combining the functions of the three individual projects as units indicates a benefit-cost ratio of 1.11 to 1.0.

The BIA has developed plans to construct the Mabton and Toppenish-Simcoe Projects within the Yakima Indian Reservation. These potential projects adjoin the operating Wapato Indian Project. The Mabton plan proposes development of a reservoir on Satus Creek to provide storage for irrigation of about 2,800 acres, outdoor recreation, flood control, and improvement of fish and wildlife resources. Approximately 98 percent of the land in the proposed project is under Indian-ownership. A planning report was prepared on this project by BIA in May 1969.

The Toppenish-Simcoe Project proposes construction of a dam and reservoir on Simcoe Creek to provide storage for irrigation of about 14,000 acres, fish and wildlife, outdoor recreation, and flood control. About 80 percent of the land proposed for irrigation is under Indian-ownership. The BIA prepared a planning report on the project in October 1967.

The Bureau of Reclamation has studied the possibility of developing storage on Ahtanum Creek, which is located on the north boundary of the Yakima Indian Reservation, to irrigate over 5,800 acres of Indian-owned land and 10,600 acres of non-Indian land, to provide flood control, recreational opportunities, and a trout fishery. Extremely dry conditions during the summer of 1973 followed by severe flooding in January 1974 focused attention on the three potential projects.

Columbia Northside Project

H.R. 6237 would authorize feasibility studies of water resource development potentials along the White Salmon River in Klickitat and Skamania Counties, Washington.

The purpose of the feasibility investigation would be to:

1. Formulate a viable plan for developing offstream storage in the White Salmon River drainage area: (a) provide the hydrologic and physical setting for a pumped-storage hydroelectric generating complex with an estimated capacity of 1,500 megawatts to be developed in conjunction with a public utility district or some other non-Federal entity; (b) provide an irrigation water supply to develop fruit orchards on 10,000 to 20,000 acres in the area; and (c) supply municipal and industrial water to the towns of White Salmon and Bingen. This storage would also provide a base of water-oriented recreation, fishery resource, and incidental flood control.

2. Formulate an environmentally acceptable plan for removing the Condit Dam from the White Salmon River to open 25 miles of main river fishery habitat to salmon and steelhead trout.

Results of a February 1974 appraisal report on the subject indicated a benefit-cost ratio of 1.84 to 1.0 at an interest rate of 5½ percent of January 1972 price levels.

The total estimated cost of the potential 4-year feasibility investigation in \$800,000 with a first-year funding requirement of \$100,000.

Five alternative plans for development of the area's resources have been investigated at the appraisal level. The White Salmon River and tributaries would be utilized as the water supply. The plans include various combinations of pumping directly from the river and diverting to offstream storage reservoirs to serve multiple-purposes. The plans address themselves to various levels of fishery enhancement; hydroelectric power generation (pumped-storage concept); domestic, municipal, and industrial water supply, and recreation, irrigation, and flood control.

A brief description of one of the plans studied and the one for which the above-mentioned benefit-cost ratio of 1.84 to 1.0 has been estimated includes: program goals for hydropower of 1,500 MW as described below; 12,000 acres of full irrigation service; 60,000 angler days per year and 267,000 pounds per year of commercial fish harvest; incidental flood control benefits; 20,000 visitor days per year of outdoor recreation; and 500 acre-feet per year of municipal and industrial water supplies. The total estimated project cost does not include the cost of power generation facilities which are assumed to be absorbed by non-Federal interests.

In this plan Condit Dam on the White Salmon River would be removed, opening 25 miles of main river fishery habitat to salmon and steelhead trout. Peak flows in the river, which hamper migration of the fish, would be diverted to an offstream storage complex. This offstream storage capability would: (1) supply municipal and industrial water to the towns of White Salmon and Bingen; (2) provide an outstanding

site for a pumped-storage hydroelectric generating complex with an estimated capacity of 1,500 MW to be developed in conjunction with the Klickitat County Public Utility District No. 1 or some other non-Federal power entity; (3) create a surface area adequate to provide cooling for a nuclear-thermal generating complex at some future time; (4) provide a base for water-oriented general recreation activities and a sport fishery; and (5) provide a water supply adequate to irrigate 12,000 acres of apple and pear orchards.

H.R. 4922

Seward Project

H.R. 4922 would authorize feasibility studies of water resource development proposals for central Oklahoma and the cities of Guthrie and Edmond, and other communities.

Any feasibility study would have to proceed with an initial focus on the ground water capabilities in the area. There would be constant cooperation with the Corps of Engineers, the Association of Central Oklahoma Governments, Oklahoma City, and the Oklahoma Water Resources Board in order to continuously evaluate the need for the Seward Project.

A December 1974 appraisal level report focused on a potential Seward Dam and Reservoir, to be located about 1 mile west of Seward, Oklahoma, in Logan County. That dam would create a reservoir with a storage capacity of about 201,000 acre-feet at top flood control pool, and a water surface area covering about 10,200 acres.

The benefit-cost ratio of the Seward plan has been estimated at 1.3 to 1.0 in an evaluation which utilized an interest rate of 5 $\frac{7}{8}$ percent. The cost of feasibility investigations is estimated at \$300,000, with \$75,000 required in the first year. This investigation would take 3 years to complete.

We note, however, that the Corps of Engineers is currently exploring several projects which could be alternatives to the Seward Project, and the ground water situation in the area is not yet adequately known for long term municipal and industrial water supply needs.

H.R. 6620

The Frenchman-Cambridge Project

H.R. 6620 would authorize feasibility investigations of a supplemental water supply for the Frenchman-Cambridge Division, Pick-Sloan Missouri Basin Program, located in Chase, Hitchcock, Hayes, Frontier, Red Willow, Furnas, and Harland Counties in southwest Nebraska. An appraisal report on the potential project is scheduled for completion in June 1975.

The goal of the potential plan would be to prevent a loss of water supply to 10,000 acres of presently irrigated land which may otherwise go out of production by year 2000 due to an insufficient water supply.

The purpose of the study would be to develop plans and implementation schedules to alleviate water shortages fed by continued depletions of the inflows into storage facilities of the Frenchman-Cambridge Division. The division consists of five units, operated by three irrigation districts. The Frenchman Valley Irrigation District has

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9,600 irrigable acres, the H&RW Irrigation District has 11,490 acres and the Frenchman-Cambridge Irrigation District has 45,003 acres, a total of 66,093 irrigable acres. The inflow to the dam and reservoir serving the Frenchman Valley and H&RW Irrigation Districts has been reduced by substantial upstream ground-water development.

The alternatives to be considered would be:

1. Measures to reduce distribution system losses
2. Irrigation Management Services (IMS)
3. Development of additional storage facilities
4. No development

An eventual total solution to the water supply problem in the Republican and Frenchman River Valleys may depend upon actions of the State of Nebraska in providing needed legislation and guidance in management of the respective basins' ground water resources. The State should participate and provide legislative controls on the use of ground water in the upper basins in order to arrive at a meaningful plan for meeting and controlling current and future water supply deficiencies.

The total estimated cost of the plan is \$3,000,000 based on January 1974 price levels. The potential plan is currently estimated to have a benefit-cost ratio of 2.86 to 1.0 at an interest rate for evaluation of 5 $\frac{7}{8}$ percent.

The total cost of the potential feasibility investigation is estimated at \$427,000 with a first-year requirement of \$70,000. The study would require 4 years to complete.

H.R. 6671

Upper Canadian River Project

The purpose of the feasibility study proposed in H.R. 6671 is to develop detailed plans for satisfying the immediate and long-range municipal and industrial needs of the city of Raton, New Mexico. This investigation would include an environmental impact statement that would assess the environmental factors relating to the project.

Potential water resources that would be investigated include but are not limited to:

(1) the Upper Canadian River and its tributaries; (2) the Dry Cimarron River Basin, and (3) ground water resources in the vicinity of Capulin located about 30 miles east of Raton. Other water resource needs related to municipal and industrial requirements will be identified and evaluated.

Various consultants have generated information, obtained data, and completed studies relative to a water supply plan for the city of Raton, New Mexico. Thus, considerable appraisal level data is already available from which a feasibility study could be initiated. A feasibility study would evaluate all available studies and incorporate useful information in determining the economic, environmental, social, and physical feasibility of the proposed development.

Estimated cost of the study is \$400,000, and \$75,000 for the first year.

H.R. 6653

The Versippi Project

H.R. 6653 would authorize a study of the Versippi Unit, Heart Division, Pick-Sloan Missouri Basin Program, principally for the pur-

H.R. 482

pose of evaluating long-range water supply plans for the city of Dickinson, North Dakota.

Initiation of the study would be dependent on better indications that anticipated growth in the area will take place with the study designed toward providing long range water supply contingency plans.

A feasibility study now being accomplished by the Bureau of Reclamation should lead to a plan to supply Dickinson with adequate M&I water through 1985. Beyond that time frame a large project of the scale of the Versippi Unit will be required only if there is substantial development of the lignite coal reserves in the area of Dickinson.

The principal long-term alternative to the above mid-term plan is to secure additional water supplies from the potential Versippi Unit. The plan includes the Versippi damsite and reservoir on the Green River about 6 miles from Dickinson. It is estimated that a reservoir at the Versippi site could provide an adequate supply through year 2025. The estimated project cost is \$12,000,000 and the benefit-cost ratio is evaluated at about 1.5 to 1.0. The total estimated cost of the study is \$100,000. The study would require 1 year to complete. The Versippi site could also provide fish, wildlife, and recreational benefits, as well as some flood control.

H.R. 5850

The Mora Basin Project

H.R. 5850 would authorize feasibility studies of the water resources of the headwaters of the Mora River, in Mora County, New Mexico. We do not support the authorization of this feasibility study. From the "Mora Project Wrap-Up Report" prepared by the Bureau of Reclamation in January 1974, there is considerable opposition to any proposed development in the area. The report also estimates that more than 50 percent of the costs would need to be allocated for fish, wildlife and recreation, which exceeds the 50 percent limit placed on those purposes by Public Law 89-72.

The Office of Management and Budget has advised that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely yours,

JOHN H. KYL,
Assistant Secretary of the Interior.

○

Ninety-fourth Congress of the United States of America

AT THE FIRST SESSION

*Begun and held at the City of Washington on Tuesday, the fourteenth day of January,
one thousand nine hundred and seventy-five*

An Act

To authorize the Secretary of the Interior to engage in feasibility investigations of certain potential water resource developments.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Interior is hereby authorized to engage in feasibility studies of the following potential water resource developments:

- (a) Power intertie potentials for the purpose of improving electric power transmission systems affecting the seventeen Western States.
- (b) Boulder Canyon project modification, located at the existing Hoover Dam, at the Arizona-Nevada boundary on the Colorado River, in Mohave County, Arizona, and Clark County, Nevada.
- (c) Minidoka project, Minidoka powerplant rehabilitation and enlargement, located at the existing Minidoka Dam, powerplant, and reservoir on the Snake River in Minidoka, Cassia, and Blaine Counties, Idaho.
- (d) the Mora River Basin in Mora County, New Mexico.
- (e) Yakima project, Yakima Indian Reservation near the Yakima River in Yakima and Klickitat Counties, Washington.
- (f) Columbia Northside project, White Salmon Division, located along the White Salmon River in Klickitat and Skamania Counties, Washington.
- (g) Seward project, Logan and Oklahoma Counties, Oklahoma.
- (h) Frenchman-Cambridge division, Pick-Sloan Missouri Basin program, Chase, Hitchcock, Hayes, Frontier, Red Willow, Furnas, and Harlan Counties, Nebraska.
- (i) Upper Canadian River Basin, Colfax County, New Mexico.
- (j) Versippi Unit, Heart Division, Pick-Sloan Missouri Basin programs, Stark and Dunn Counties, North Dakota.
- (k) Muddy Ridge area, Riverton unit, Pick-Sloan Missouri Basin program, Fremont County, Wyoming.
- (l) A comprehensive resource analysis adequate to determine the feasibility of a geothermal energy utility system for the city of Susanville, California, and to initiate reconnaissance level studies of similar undertakings which may be requested by public entities in the future.

Speaker of the House of Representatives.

*Vice President of the United States and
President of the Senate.*

December 8, 1975

Dear Mr. Director:

The following bills were received at the White House on December 8th:

H.R. 5681 ✓

H.R. 6669 ✓

Please let the President have reports and recommendations as to the approval of these bills as soon as possible.

Sincerely,

Robert D. Linder
Chief Executive Clerk

The Honorable James T. Lynn
Director
Office of Management and Budget
Washington, D. C.