

State Affairs  
 HB 698, SB 477, HJR 65 Capitol 123-A 1:30 p.m., Mar. 26

Select Committee on  
 Telecommunications  
 w/TV Advisory Board  
 & rep. of the industry  
 from Anchorage Capitol 118 2:00 p.m., Mar. 26

HESS  
 HCR 111, HB 744, 367, 392,  
 635, 772, SB 554, 546 Capitol 112 3:00 p.m., Mar. 26

C&RA  
 HB 725, 816, 797, 798 Capitol 123-A 9:00 a.m., Mar. 29

ADJOURNMENT

Mr. Miller moved and asked unanimous consent that the House adjourn until 10:00 a.m., March 29, 1976. There being no objection, the House adjourned at 12:15 p.m.

Irene Cashen  
 Chief Clerk

March 1976

JOURNAL  
 SUPPLEMENT

SENATE AND HOUSE - SUPPLEMENT NO. 6

MARCH 26, 1976

ELECTRICAL POWER FOR ALASKA

Speech By

Senator Mike Gravel

to the Alaska Legislature

March 26, 1976

POWER NEEDS OF OUR STATE

Today I appear before you to seek your thoughts and offer a suggestion with regard to the power needs of our state. Before launching into my proposal, let me take this opportunity to commend the legislature for initiating a detailed study of the state's power situation. This document soon to be released will greatly help in developing a coherent power policy for all parts of Alaska.

I would like to express my appreciation for the fine cooperation of the Hammond administration. Without the full participation of the Governor the suggestion of today's proposal would not be very viable. Commissioners Motley and Gallagher along with the Governor's Power Commission played a contributing role.

Certainly the Alaska District of the Corps of Engineers under Col. Charles Debelius' outstanding leadership should be commended. And let me add one more name, Major General Ernest Graves, the head of Civil Works for the Corps whose imagination was most key in developing the following proposal.

The suggested plan for power in Alaska is the product of numerous investigations and surveys by the Army Corps of Engineers. Extensive discussions and inquiries in the last year were undertaken with the Corps, the Senate Public Works Committee, the private sector, the state administration and my office. The product of this activity I trust will warrant your serious consideration.

Though my proposal today centers on the railbelt area, it also includes the capability to initiate extensive hydro developments in southeast and other parts of Alaska.

At the end of this paper I will also have a suggestion speaking to the power problems unassociated with hydro electric power in the bush and in the western and northern coastal regions of Alaska.

#### SUSITNA BACKGROUND:

Studies of possible sources of power in the railbelt area were initiated some twenty-five years ago. The very earliest report, put out by the Bureau of Reclamation in 1953, recommended that early attention be given to the development of a hydroelectric project on the Susitna River, in the vicinity of Devil Canyon.

A subsequent Bureau of Reclamation report recommending construction of Devil Canyon was released in 1961. Nothing further was done at that time.

In April of 1972 the Senate Committee on Public Works, of which I am a member, adopted a resolution. The Committee asked the Corps of Engineers to conduct a study to determine the feasibility of hydroelectric power development on the Susitna River, including the Devil Canyon site.

The Corps has now completed the Devil Canyon aspect of the study. The report and environmental impact statement will be sent to Congress late this spring or early summer. The Corps will recommend authorization of a two-dam system on the Devil Canyon and Watana damsites on the Susitna River. The cost is estimated to be \$1.5 billion.

#### FEDERAL PRIORITY

In the traditional course of events, the next step would be Congressional authorization. As chairman of the Water Resources Sub-committee which handles all such projects for the nation, I am confident we could secure authorization in a timely fashion.

But project authorization is only half the battle. In fact, in today's fiscal world, authorization is considerably less than half the battle.

The problem is financing. The last few years have given me some knowledge of the problems inherent in obtaining funding for Corps of Engineers projects, not only in Alaska but across the nation.

The level of Corps funding over the past decade reflects the feeling of the White House that the Federal Government should decrease its participation in such public works projects. This feeling is not confined, I might add, to Republican administrations, but to Democratic as well.

Several Federal recommendations have been made in recent years that beneficiaries of water resource projects should bear in a direct fashion the full cost of construction, operation and maintenance of such projects. These recommendations have not yet been implemented. However it is only a matter of time until they are accepted by the Congress.

In lieu of a new congressional policy, the Administration has been cutting down on the Corps programs through the budgetary process.

It is now to the point where our inability to develop a politically acceptable policy will cause a defacto attrition of the whole program.

In brief, the total Corps of Engineers program is currently being funded at a rate less than half that of ten years ago. The FY 1977 budget request includes no new construction starts and very few new survey starts. The lack of survey starts now will assure no new construction starts in the future even if there is a change in policy.

Money appropriated for the civil works program of the Corps of Engineers is being used, for the most part, in finishing construction work now underway and operating and maintaining completed projects. It is obviously the Administration's intent to phase out Federal involvement in water resources projects.

There are those who will say that circumstances will change if a Democratic President is elected this year. I take issue with this view. The economic situation this nation faces will remain critical regardless of which party is in the White House. For the foreseeable future we will have

great conflict and difficulty in prioritizing our national programs. And I strongly doubt that the water resource program will climb much higher on the list of priorities of any Administration, be it Republican or Democratic. This is the case today even though our hydroelectric capability could be doubled contributing greatly to our energy independence.

What does all this mean in terms of Devil Canyon? The message is clear. I doubt that Congress would place much budgetary priority on satisfying Alaska's energy needs with hydro energy during the same period that Alaska exported fossil fuel energy to the rest of the nation.

The view would simply hold that we should use our own indigenous fossil energy sources rather than ask Congress to buy us a new source with other people's tax dollars. The economic and environmental benefits this new source would bring to the Alaskan community, all ready perceived as wealthy, would not be terribly persuasive to some envious of our good fortune.

This could mean fifty years before we even secure the attention and sympathy of the Congress to this project.

#### FUNDING EXAMPLES

Let me discuss with you for a moment three specific Corps of Engineers projects in other parts of the country. They serve considerably more people and enjoy political clout unmatched in the Congress. These projects had original cost estimates for less than Devil Canyon and therefore had considerably smaller ongoing budgetary demands.

The Harry S. Truman Dam and Reservoir in Missouri, is a multiple purpose project which was authorized in 1954. Construction money was first appropriated in 1965. Total project cost at that time was estimated to be \$129.5 million, and completion was scheduled for FY 1971.

Now, in Fiscal Year 1977, the cost estimate has climbed 219%, to \$413 million. The project is 51% complete, and is scheduled for completion in December 1980, 26 years from original authorization.

A major portion of the benefits of this project accrue to Arkansas represented by John McClellan, Chairman of the Senate Appropriations Committee.

The Tennessee-Tombigbee Waterway in Alabama and Mississippi, will provide a connecting waterway system considered to be national in scope, and was authorized in 1946, at an estimated cost of \$120 million. Construction funds were first appropriated in FY 1971. The estimated total cost at that time was \$361.3 million.

The FY 1977 cost estimate for this project is \$1.5 billion. It is six percent complete, and the estimated completion date is March, 1986, 40 years from original authorization.

A large part of the Tennessee-Tombigbee benefits are to the State of Mississippi. Senator Jim Eastland of Mississippi has represented the State since 1943, and stands first in seniority in the United States Senate. The junior Senator, John Stennis, has served since 1947, and is chairman of the Public Works Subcommittee of the Appropriations Committee.

And yet the combined efforts of both these distinguished men have not been enough to achieve more than six percent completion of this project after 30 years.

The Lower Granite Lock and Dam in Washington, part of the Lower Snake River multiple purpose project, was authorized in 1945, at an estimated cost of \$82 million. Construction was initiated in 1965.

The project is now 92 percent complete, and the total estimated cost is \$310 million. Date of completion is now scheduled for September 1979, 34 years from original authorization.

Senators Magnuson and Jackson are two of the Senate's most senior and influential members yet it still will take 34 years to construct their project.

Summarizing the track record of these representative projects, shows that it has taken an average of 18 years from the time of authorization to first construction monies. Construction when initiated has been prolonged an average of 5 years or a third longer than engineering schedules would require.

It should be pointed out that the Corps of Engineers suffers the criticism for cost overruns when in fact most overruns are a product of erratic cash flows necessitated by federal budget constraints.

#### NEW PERCEPTION OF ALASKA

Let me move now to another area of concern which will affect the funding and construction of Alaskan projects.

I have noted a growing sense among Members of Congress that Alaska has reaped a large number of benefits which other States have not enjoyed. There are those who feel that it may be time to call a halt to this favorable treatment of our last frontier.

In late January I managed a bill on the Senate floor to authorize \$70 million for the repair of Alaskan highways damaged by heavy truck traffic associated with construction of the trans-Alaska pipeline. The basic justification for the measure was that, because of the national importance of the pipeline in alleviating our energy needs, the cost of such road repairs would properly be a Federal responsibility. In the course of the debate I had an extended colloquy with Senator Bumpers of Arkansas.

The Senator objected to my bill because he felt we were already getting more than our fair share of treasury. He mentioned that other states which produce energy goods, such as coal, also suffered highway damage but did not reap similar benefits.

He mentioned the fact that the Alaska State Ferry System was the only waterway system in the nation to enjoy Federal highway monies, through a special Act of Congress.

He noted that Alaska is the only State in the Union that has been granted a 95 to 5 cost-sharing ratio in Federal aid to highways. The formula for the rest of the nation is 90 to 10.

He pointed out that, while the rest of the United States has been experiencing the worst recession since the Great Depression, Alaska has been enjoying an unprecedented economic boom.

Part of my case rested on the fact that Alaska should not be asked to assume the cost of producing benefits primarily accruing to the entire United States. Senator Bumpers retorted with the suggestion that Alaska will receive far greater benefits from the pipeline than will any other State and therefore it would be reasonable to expect Alaska to bear at least some of the associated costs.

The bill passed the Senate, but with an amendment. The amendment directed the Department of Transportation to report to Congress on the feasibility of repayment by the State of Alaska any sums paid to it pursuant to this legislation.

I cite this incident as an illustration of a growing feeling in the Congress that Alaska may be wearing out its welcome.

Are we getting more than our fair share????

I have done some research into the Federal tax burdens carried by States in comparison to Federal outlays to the States. In Fiscal Year 1974, Alaska bore .18 percent of the total tax burden of the entire United States. Total U.S. outlays to Alaska comprised .41 percent. We received slightly more than twice what we put in.

Again in Fiscal Year 1974, the average Federal outlay per capital in the United States was \$1,321. In Alaska the per capital outlay received was \$3,401; in Arkansas it was \$1,146 and in Illinois it was \$1,084. Alaska's per capital outlays from the Federal Government was second only to the money spent in Washington, D.C., our nation's capital.

Thus we have the state with the lowest population in the United States reaping the highest Federal benefits.

There are factors in Alaska that set us apart from the rest of the country. The immense distances between population centers, the poor living conditions of a large portion of our people, and our high cost of living, are only a few.

But we must also recognize that, in these days of economic hardship for all, people outside see only the figures I have just mentioned. They see our native community prospering with the decision to give them 40 million acres and

a billion dollars. They also see the Alaskans reaping astronomical salaries working on the pipeline -- a privelege Alaskans have repeatedly attempted to deny by legislative act, to non-Alaskans. And they see that, when the pipeline is finished, Alaska's income from oil royalties alone is estimated to be anywhere from \$1 million a day to \$1 billion a year.

Are we getting our fair share????

Many outside perceive that we are getting more than our fair share and this perception could well translate itself into national policy adverse to our interests in Congress where our delegation number 3 out of the 535 membership. This problem will require deft and skillful treatment by all of us in all of our activities in and out of Alaska.

#### DEVIL CANYON FUNDING

Devil Canyon, at an estimated cost of \$1.5 billion, will be the largest Corps of Engineers' project ever authorized.

The advance engineering and design alone is estimated at \$50 million over a four-year period. At an average of \$12.5 million per year, that is over 50 percent of the money requested for advanced engineering and design for all Corps projects in the FY 1977 budget. So you have a project benefiting a little more than one tenth of one percent of the total U.S. population asking for more than 50 percent of available funds designated for all projects. This would be equivalent to the settlement of Gambell coming to the Alaska Legislature asking to fund one project taking over half of the funds available for the whole State in that part of the budget. How would such a request be treated in Juneau?

With respect to construction. The Corps estimates ten years of construction under optimum funding. At an estimated cost of \$1.5 billion, this averages out to \$150 million per year. That is 12 percent of the total Corps construction budget request for the entire country in FY 1977. If that budgetary level were to remain constant over the next decade, we would have one project asking for 12% of the total funds of

all fifty States ten years running to benefit a little more than one tenth of 1% of our nation's population.

I do not think it necessary to belabor the point that optimum funding is a pipedream and that serious funding for Devil Canyon is not in the cards for the foreseeable future. It is unrealistic to think, and it would be arrogant for me to say, that I could do any better in obtaining funding than did John McClellan, Jim Eastland, John Stennis, Warren Magnuson, and Scoop Jackson.

Also, by fighting to get sufficient funding for a project this size we would incur everybody's wrath. We would be accused, and perhaps rightfully so, of being greedy. Devil Canyon would be labled in the national media as the biggest boondoogle in American history.

The Congressional delegation's political strength for the next 40 years would be sapped annually in the Devil Canyon budget battle, jeopardizing our effectiveness in other areas of deep concern to our State.

This does not begin to speak to the image Alaskans would create over this period in the minds of our fellow Americans. The harm could be irreparable to us and our great state.

#### THE SECURING OF DEVIL'S CANYON

Alaska needs Devil Canyon power. We need it built now. This project presents the first meaningful effort to impact favorably our high cost of living. Electrical energy is the physical underpinning of any economic society. Improve its costs and you improve on the costs of all economic activity. To date Alaska has suffered some of the highest costs on our continent. We have the power now to make a decision that could well secure for all Alaskans some of the cheapest electrical energy available. With optimum funding, the Corps of Engineers can complete the job in fourteen years, with the first power on line in ten years. If we begin in Fiscal 1977 we can have power available by 1986.

It is one of my primary objectives to see this project built and in operation as soon as is humanly possible.

There is not a doubt in my mind that the traditional method of achieving this objective will not succeed.

I am here to suggest that we break with tradition. I am here to recommend to you that the State of Alaska undertake this great hydro-electric project on the Susitna River.

Let me hasten to assure you that when I recommend this course of action, I am not suggesting that the State actually build the project. The Corps of Engineers is the proven expert in this field and is best qualified to plan and construct the Devil Canyon project. They are already well down the road with a completed feasibility report and a draft environmental impact statement.

I propose that we secure authorization of the project in the traditional method. I will seek passage of legislation permitting the Corps of Engineers to plan and construct the project.

From that point on, the traditional formula calls for the Corps to turn over the sale of power from the facility to a marketing agency, which uses the revenues to repay the Federal Treasury for the cost of construction.

This is where I suggest a break with tradition. I propose that the State of Alaska finance the construction of Devil Canyon by the sale of revenue bonds. This would establish a cash flow to pay construction cost as fast as engineering capability dictates.

Concurrent with authorization of the Devil Canyon project, I will seek enactment of a bill, national in scope, to be known as the "Hydroelectric Power Development Act of 1976". This measure will establish a Revolving Fund from which public and nonprofit entities can borrow "front-end" money to set up the financial structure to provide funding for the project. This Fund would also advance money to provide for preconstruction planning and related activities for such projects.

The measure will also stipulate that the United States shall assume the responsibility for paying all increased costs caused by any delays in construction or unforeseen contingency. And if for any reason the project is halted before completion, the non-Federal power authority shall be fully reimbursed for any losses suffered.

There is a measure pending before this body, introduced by Jim Duncan and Red Swanson, which would establish an Alaska Power Authority. This entity would act as an instrumentality of the State in financing and operating hydroelectric power projects. The Corps of Engineers has examined this bill. They inform me that it would dovetail very well with the procedure that I am suggesting.

With the enactment of the Duncan bill, plus the two federal measures I have authored, the stage will be set for the state to finance the Devil Canyon project and the Army Corps of Engineers to build it.

The Alaska Power Authority could issue tax-exempt revenue bonds or any other type of instrument it deemed necessary to obtain the monies to repay the federal government for the funds borrowed for preconstruction costs and construction itself. The first year monies would be borrowed from the Revolving Fund, to be repaid by the State Authority along with the original survey costs.

During the six years of construction on the Watana Dam and the beginning work on the Devil Canyon Dam, about \$150 million annually would be required.

At the end of four years of planning and six years construction, nearly 3.4 billion kilowatt-hours of average annual energy will be available from the Watana dam. Then four years later will see the completion of the Devil Canyon dam adding another 3.4 billion kilowatt-hours of power. Upon their completion, each dam will be turned over to the Alaska Power Authority which will own the dams and market the power.

In my judgement, there would be no need for the state to guarantee the debt instruments of the Authority. Under the legislation I will introduce, neither the state nor the Authority will be liable in any way for cost overruns, delays or project failures prior to completion of construction and transfer of the operating dams to the Authority. Federal indemnification will guarantee a completed, workable project. Should the project fail prior to transfer of ownership to the Authority, the federal government would carry the cost and reimburse the state for any losses suffered.

It is likewise my judgement that the economics of the project and the state's future potential will attract a favorable interest rate, albeit not as low as the present subsidized federal rate. As stated earlier, the federal treasury is under great pressure to do away with this type of subsidized interest rate.

In the long run, the money saved in rapid completion of the project would more than compensate for the higher interest rate on unguaranteed revenue bonds.

The project would undoubtedly be financed on a forty or fifty year term. It should be underscored that when the debt is retired the revenues from the dams will accrue to the State Authority. The expected economic life of the dams should exceed 100 years.

The procedure I am advocating is not totally without some degree of precedent. The State of Washington, for example, created an authority known as the Washington Public Power Supply System. This body is currently financing and constructing several power plants, and plans additional facilities to eventually cost \$14 billion. These projects are financed through the sale of tax-exempt revenue bonds. The Bonneville Power Authority is buying the output of several of the units, thereby providing security, a federal government guarantee for the bonds. I doubt that this type of guarantee could be secured in the present or future Congress.

Another example can be found in Canada. The Province of Quebec, very similiar to Alaska but without the blessing of oil discoveries,

has established the Quebec Hydroelectric Commission. A \$12 billion hydropower project is being financed and constructed by the issuance of debentures, which are unconditionally guaranteed by the Province of Quebec. Those debentures are primarily sold in U.S. capital markets.

In summary, let me emphasize that we can and should build the two power dams on the Susitna River.

This project will:

- provide relatively cheaper power to the residents of the rail belt area
- form the economic base for equalizing and diminishing power costs throughout the state
- appreciably improve upon the air quality of the Fairbanks area
- diminish the degree of thermal pollution
- provide extensive recreation potential
- and will cause minimal negative effects on the ecological system in question.

The electrical energy generated from this project will be used to satisfy existing and anticipated needs and will not be used for new industrial enterprise to the detriment of Alaskan consumers.

The risks to the state in financing this project are no greater than would be the risk to the state's consumers under the traditional federal method.

Devil Canyon will be one of the Corps' largest undertakings and the first such project to be built in record time.

This action can only take place with the affirmative decision of the State Legislature, State Administration, the Congress and the President of the United States.

#### SOUTHEAST ALASKA

As I understand it, Jim Duncan initiated his proposal in order to facilitate hydro power exploitation in Southeast Alaska. Red Swanson saw in the same measure the possibility of attending the fossil fuel (coal) needs of his district.

Under the legislation I will introduce in Congress, there will be more than sufficient flexibility to attend the power needs of all parts of Alaska, not just the rail belt area.

The Alaska district of the Corps has just completed an investigation of hydro sites in Southeast Alaska. Using existing criteria, the results indicate that hydro sites on the order of 30 to 50 megawatts are not economically viable. The cost benefit ratios have difficulty reaching unity. This is, the economic benefits from the projects have to be equal to or more than the costs of the projects.

The dam site and power house costs are not out of line. These hydro sites are 20 to 30 miles from the communities to be served. This has pushed the transmission costs to such a level as to jeopardize the c/b ratio.

In defining the size of a project the potential growth of a community is factored in, thereby increasing the size of the project beyond what would be necessary to satisfy existing demand. However, if only present day needs are considered, the size of the projects diminish appreciably and in many cases become economically attractive.

The Corps' investigation shows that 5 megawatt power plants or less could be very attractive economically. Such projects can be located closer to the communities served. Most communities with some local water potential could be served by hydro power.

"Small is Beautiful", the title of Professor Shoemaker's imaginative book, can be made to apply not only in Alaska where the Corps has investigated, but throughout the nation. Such a new program could contribute greatly to our energy independence and an amelioration of our environmental problems.

I will ask the Corps to set up a special task force to initiate some small hydro projects in Southeast Alaska as a prototype for a

national program. These small projects would be undertaken in conjunction with local interests. The Alaska Power Authority or an REA cooperative could act as the local interest for very small communities.

The Corps' role and the local interests' responsibility would be developed as the situation warranted. It could certainly be comparable to the plan envisaged for Devil Canyon or some new approach could be tried.

#### PROGRAM FOR THE FUTURE

The economic benefits of the Susitna project will accrue to the residents of the rail belt area as a matter of geographic caprice. This project will come into being through the use of the political power of the whole state (all its people). The Governor and the elected legislature, representing all the people of Alaska must decide for the Susitna project if it is to become a reality.

There is no reason why this same political power can't be used to remove the geographic caprice limiting the economic benefits of favorable hydro sites.

As the Alaska Power Authority gains experience with time and generates revenue, it could establish an equalization formula to assure that all residents of the state are paying the same rate for electrical energy.

In closing let me ask for your thoughts and criticism of these suggestions. Your input can make the plans more acceptable to those parties who must make the political decision. A decision I am sure will benefit Alaska.