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COLUMBIA RIVER BASIN ACCOUNT

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HEARING

BEFORE THE

COMMITTEE ON INTERIOR AND INSULAR AFFAIRS UNITED STATES SENATE

EIGHTY-NINTH CONGRESS

FIRST SESSION

ON

A PROPOSED BASIN ACCOUNTING SYSTEM FOR THE COLUMBIA RIVER BASIN

SEPTEMBER 1, 1965

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COLUMBIA RIVER BASIN ACCOUNT

WEDNESDAY, SEPTEMBER 1, 1965

U.S. SENATE,
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
Washington, D.C.

The committee met, pursuant to call, at 10 a.m., in room 3110, New Senate Office Building, Senator Henry M. Jackson (chairman of the committee) presiding.

Present: Senators Henry M. Jackson (Washington), Frank E. Moss (Utah), Quentin N. Burdick (North Dakota), Thomas H. Kuchel (California), Gordon Allott (Colorado), Len B. Jordan (Idaho), and Paul J. Fannin (Arizona).

Also present: Kenneth Holum, Assistant Secretary of the Interior; accompanied by J. Karl Lee, staff assistant; Joel Adamson, Bonneville Power Administration, Portland; Leo Kudej, Bonneville Power Administration, Washington; Paul Sant, Bureau of Reclamation, Salt Lake City; Kenneth E. Johnson, Bureau of Reclamation, Boise, Idaho; Loren Holt and David E. Flipse, Bureau of Reclamation, Washington.

Also present: Jerry T. Verkler, staff director; Stewart French, chief counsel; Ralph Johnson, chief consultant on water; and Richard N. Little, minority counsel.

The CHAIRMAN. The committee will come to order.

A proposed basin accounting system for handling irrigation assistance has again been suggested for the Columbia River Basin.

The public hearings called today are for the purpose of enabling the committee to obtain background information on the basin account method of developing our water resources, and to hear testimony by the Department of the Interior officials on the current proposal.

On two prior occasions, in 1950 and 1960, basin account proposals for the Columbia were placed before this committee, although on neither occasion did they result in legislation. Since then, in 1963, important administrative changes were made in the accounting system used by the Bonneville Power Administration concerning the way it provides assistance to particular irrigation projects.

I believe, however, that there is some confusion about these changes and about the alternative methods that can be used to handle assistance to irrigation in the Columbia Basin. Thus, one of the purposes of these hearings is to review the 1963 changes and to ascertain whether administrative or legislative action might be desirable.

There are no specific bills before the Congress at the present time to establish a Columbia Basin account nor is it my understanding that the Department of the Interior has finalized its own position on the matter as yet. Therefore, we are free to discuss the subject and to ask questions of Assistant Secretary Holum and his associates in order to get all the information we can about this complex matter.

Secretary Holum, I believe you have a formal statement that you would like to present. We are delighted to welcome you back before the committee and suggest you bring to the table whatever associates you wish to have present and available in connection with your statement and the questions that are to follow.

Mr. HOLUM. Thank you, Mr. Chairman.

STATEMENT OF HON. KENNETH HOLUM, ASSISTANT SECRETARY OF THE INTERIOR, ACCOMPANIED BY J. KARL LEE, STAFF ASSISTANT; JOEL ADAMSON, BONNEVILLE POWER ADMINISTRATION, PORTLAND; LEO KUDEJ, BONNEVILLE POWER ADMINISTRATION, WASHINGTON; PAUL SANT, BUREAU OF RECLAMATION, SALT LAKE CITY; KENNETH E. JOHNSON, BUREAU OF RECLAMATION, BOISE, IDAHO; LOREN HOLT AND DAVID E. FLIPSE, BUREAU OF RECLAMATION, WASHINGTON

Mr. HOLUM. It is always a pleasure to appear before this committee. I and other representatives of the Department have appeared before you many times during the last 8 months. On every occasion that I can recall, we have come before you as advocates either of a position developed by the administration on its own initiative or on the basis of the administration position and the Department's position developed in response to legislation introduced by members of the committee or the Congress. I am here this morning under different circumstances. We have, as you have already noted, no legislation prepared and submitted to the Congress, no Interior-administration position developed.

Finally, as far as facing legislation for the Pacific Northwest and the Columbia Basin drainage area is concerned, this may be my last appearance before this committee during the current session of the 89th Congress. If it is, I certainly want to take this opportunity, having noted our previous appearance here as applicants, to express my appreciation and the appreciation of the Department in the splendid leadership that this committee has given to resource development and conservation during the current session of the Congress.

The CHAIRMAN. Secretary Holum, we of the committee want to extend our appreciation to you for your full cooperation and willingness to be completely responsive to our many requests. We are pleased to have you make this presentation today.

Mr. HOLUM. Thank you, Mr. Chairman.

As I have already noted, I am not here as an advocate. We are here to discuss what is a complicated and intricate problem related to resource development, and that is the proper financial management of these projects.

I have with me at the table this morning a new associate of mine in the Department of the Interior. I am very happy—and we are all happy in the Department—to have Karl Lee. Many members of the committee have known him longer than I; he is now associated with the Office of the Secretary. He has already, and will in the future, I know, provide us with very valuable assistance with matters that we are going to be discussing this morning and other matters that are of equal importance to the Department and this committee.

The matter we are discussing this morning is intricate and complicated, and Karl is going to be my strong right arm, I know, as we get involved in details of account legislation and accounts as they have been applied historically in other areas of the country, and as they might be applied in the Pacific Northwest.

I am sure the discussions this morning will be useful to the Department and I hope to the members of the committee as we consider finally the question of whether or not such legislation ought to be submitted by the Department for your consideration.

In connection with the discussion of the Northwest, and particularly with respect to the Columbia River Federal power system, I would like to make it clear at the outset that we do not have a payout study for the system which has been approved by the Secretary to discuss with the committee this morning.

As members of the committee know, the Bonneville Power Administration has prepared such studies based upon different assumptions. These studies are now under review in the Department. Therefore, we are not in a position at this time to present to you an approved repayment study for the Columbia River Federal power system.

To illustrate some of the changes that have taken place in power marketing policy as related to a basin account in the Pacific Northwest, we are going to present certain charts representing a hypothetical payout for that system. These charts should be considered only as illustrative in nature and should not be considered as showing specifically the projected payout status of the Columbia River Federal power system.

Perhaps I should also point out as a further preface that in considering basin accounts we are concerned with a very elusive subject. In many respects it is simply an accounting concept, difficult to define in specific and precise terms. For this reason, we have developed charts and illustrations which we hope will help in explaining some of the concepts involved.

I suspect that after we are through today we will still have many unanswered questions. I want to assure you that we will be happy to spend as much time as you consider appropriate responding to questions that occur to members of the committee.

A basin account involves a presentation of the status of project costs and revenues related to a repayment plan, projected over the repayment period. Such a presentation can cover any given grouping of projects, units, or divisions comprising a geographic area or region or a river basin. It may involve methods of funding the construction costs of projects in the same manner as the reclamation fund, but projects or units can only be added to the account by the specific authorization of Congress. It does not involve an account into which funds are literally deposited and held until used. It is a procedure whereby total project revenues are used to account for the return of total reimbursable project costs.

The justification for the use of total project revenues to repay total reimbursable project costs derives from several basic relationships. The first is that a river basin represents a single hydraulic unit in which downstream flows depend upon upstream management.

The second is that the construction of multiple-purpose projects makes it possible to serve individual functions more cheaply than would otherwise be the case, and therefore all functions involved in a project have a common interest.

The basin account facilitates the orderly development of all water resources within a basin. Each segment of area of the basin is not dependent wholly upon the financial resources within that segment or area. The basin account makes it possible to secure the optimum development of all water resources within the basin regardless of the location or the physical association with other functions. There may be one or several reimbursable purposes within a unit which may require financial assistance.

Immediately after the passage of the Reclamation Act of 1902, it became evident that the impoundments made to store irrigation water provided an opportunity to generate power. In recognition of this, the Congress in 1906 enacted legislation which permitted the generation of hydroelectric power for project use on irrigation projects. The first power on a reclamation project was generated on the Minidoka project in southern Idaho in 1909.

The act of 1906 also provided authority to sell the surplus power not needed for project use. Since then, the generation of hydroelectric power has grown to be an important function on many reclamation projects in the 17 Western States. At the present time, power is generated at 54 plants, including those for which the Bureau of Reclamation has marketing authority. The presently installed capacity amounts to 8,310,000 kilowatts. In addition, there are seven plants under construction, with a planned capacity of 1,339,000 kilowatts.

The present concept of a basin account had its origin in the 1939 amendment to the Reclamation Act. The act did two things which are important from the standpoint of basin accounts: it authorized the use of total project revenues to repay total reimbursable projects, and it authorized the use of utility contracts in addition to the repayment contract which had been used since the passage of the original act.

Under the utility contract approach, after the costs allocated to a given function have been repaid, the revenues previously used to amortize the capital investment of that function can then be used to repay the costs of the same functions or other functions at additional units or divisions of the project.

The 1939 Reclamation Project Act also specified that the water users annual payments should be based upon their repayment ability. Since then, it has been a common practice in the reclamation program to anticipate the use of revenues from other functions to assist in the repayment of those costs allocated to irrigation which are in excess of the ability of the water users to repay.

There are three operating basin accounts in the 17 Western States in which the Bureau of Reclamation operates. In addition, S. 1019, which would establish a basin account for the lower Colorado River, has been introduced.

The three basin accounts are the Central Valley project, which was initially authorized in 1935; the Missouri River Basin project, which was authorized in 1944; and the upper Colorado River storage project, which was authorized in 1956. In spite of their similarities with respect to the use of total project revenues to repay total project costs, there are some distinct differences in the details of application of the principle in each case.

The Central Valley project is located entirely within the State of California. It serves the functions of irrigation, municipal and industrial water, commercial power, flood control and navigation, fish and wildlife, and recreation. The function of municipal and industrial water is relatively more important in this project than in any other project involving the basin account concept. Except for water distribution systems, this project presently involves straight utility contracts for all commercial power, irrigation water, and municipal and industrial water.

The reimbursable functions of the project are repaid under terms established in reclamation law and policy. The commercial power investment is being repaid within 50 years with appropriate interest, the municipal and industrial water investment within 50 years with appropriate interest, and the irrigation investment without interest within 50 years plus the permissible development period.

When new units are proposed for addition to the project, analyses are presented to the Congress showing the effect of adding the new unit to the payout of the base system, including the existing authorized units. The comparison of the proposed payout systems under the "without" and "with" condition illustrates the effect of the addition of the new unit which is proposed and demonstrates the ability to repay the costs of the new unit by the use of system revenues under the criteria applicable to the Central Valley project. Several such repayment studies have been presented to the Congress in connection with hearings on new units.

As the Central Valley project grows and new irrigation units are added involving irrigation pumping, the allocation to commercial power may be reduced. This reduction in the allocation does two things: It reduces that part of the allocation which is reimbursable with interest, and it also reduces the potential source of financial assistance to irrigation.

It is partly because of this and partly because of the relative importance of municipal and industrial water in the Central Valley project that a significant portion of the total financial assistance to irrigation in that project will be derived from municipal and industrial water.

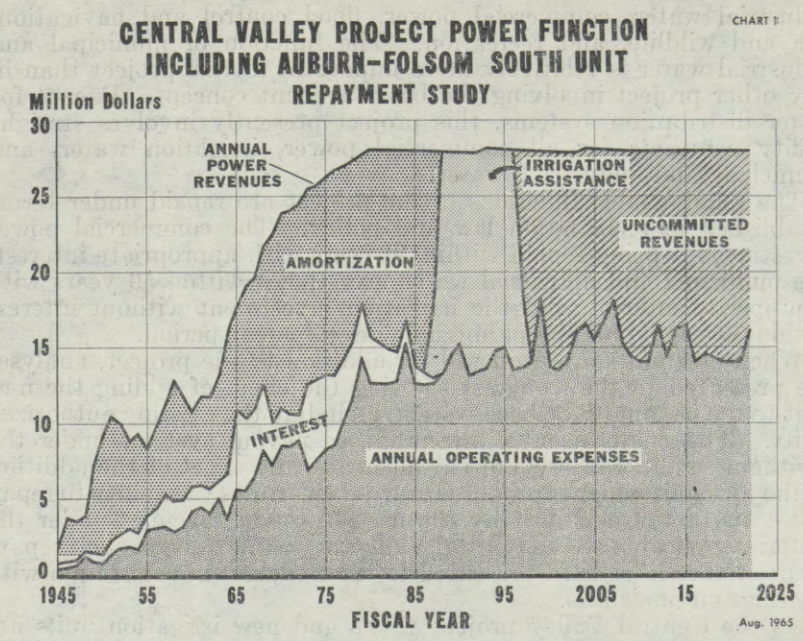
It should also be noted that water service contracts are subject to extension. Under this concept, it is possible that eventually one irrigation unit will be aiding another just as one powerplant might aid another.

Three charts illustrating the payout of the Central Valley project are attached. It will be evident from these that the Central Valley project is in sound financial condition and is substantially ahead of the payout requirements.

One of the common features of basin accounts is the repayment of the interest-bearing allocations prior to the repayment of the non-interest-bearing allocations to the extent this can be accomplished within the authorized repayment periods. This permits some flexibility in scheduling of construction and repayment of additional units.

I think, Mr. Chairman, it would be appropriate at this time to ask Mr. Lee to explain these charts. We have them available here in larger form. These three charts relate specifically to the basin account for the Central Valley project.

(Chart 1, Central Valley project, follows:)



Mr. LEE. Mr. Chairman, these are the same charts that are bound in the statement which Mr. Holum has distributed and you have before you.

Starting on the bottom axis we have the number of years involved in the payout starting from 1945, going to the year 2025. On the other axis we have dollars amounting to $30 million a year.

This chart shows that the annual revenues expected from the Central Valley project, from the existing project plus Auburn-Folsom South, and it is projected to the year 2022, because that will be 50 years after Auburn-Folsom South is expected to go on the line, in 1973.

With these revenues, first, you take off annual operation, maintenance, and replacement costs. These are depicted by the area under the black line (medium stipple). I should point out that the reason these fluctuate so much is that the replacements have been costed into the payout study at the specific year in which they are expected to be made.

There are alternative ways of handling replacements, but these have been costed in at a specific year, and this has the effect of making the annual operation and maintenance costs irregular.

The next thing that is repaid is the interest on the commercial power investment. The interest also fluctuates up and down because of the effect of the replacement line.

After paying interest, then the commercial power investment for all units is repaid. This is the commercial power investment for all existing units including Auburn-Folsom South. After that the authorized irrigation assistance is repaid and this will be repaid by about 1997. You will also note that the commercial power investment will be repaid in about 1986. This is much less than the normal 50-year period which is permissible.

After repaying the power, the irrigation assistance is repaid in approximately 11 years. After that, this block of income (diagonal lines) would then be available to provide further irrigation assistance and to aid in the repayment of future power projects, power costs, and muncipal and industrial water costs.

You will note particularly the irrigation assistance here with Auburn-Folsom South will be paid in about 1996.

Senator Moss. Does that line showing irrigation assistance run off the chart entirely?

Mr. LEE. This is extended for 50 years, the terminal date of this payout study is 50 years after Auburn-Folsom South is added. If you project the revenues at constant rates, as is done in this case, it would go to the end of the economic life of these projects, but this was extended to 50 years past Auburn-Folsom South.

The CHAIRMAN. At this point, what is the reasoning behind the repayment of the interest-bearing allocations prior to the repayment of the non-interest-bearing allocations?

Mr. LEE. Well——

The CHAIRMAN. It makes a difference in the payout?

Mr. LEE. Yes, it does make a difference in the payout. It simply saves money. It is good financial management to payout the interest-bearing amount first to the extent you can do this and still pay the non-interest-bearing allocations in the time specified by the Congress. In this case you can repay the power and you can repay irrigation all within less than the 50-year period, much less than the 50-year period in this case.

This is not true in some other cases, notably the Columbia River.

The CHAIRMAN. But it is merely an arbitrary determination?

Mr. LEE. It is a system of financial management to pay out the system costs in the most expeditious manner. Other procedures could, of course, be used.

(Chart 2, Central Valley project, follows:)

CHART 2

CENTRAL VALLEY PROJECT POWER FUNCTION
INCLUDING AUBURN-FOLSOM SOUTH UNIT
REPAYMENT STUDY

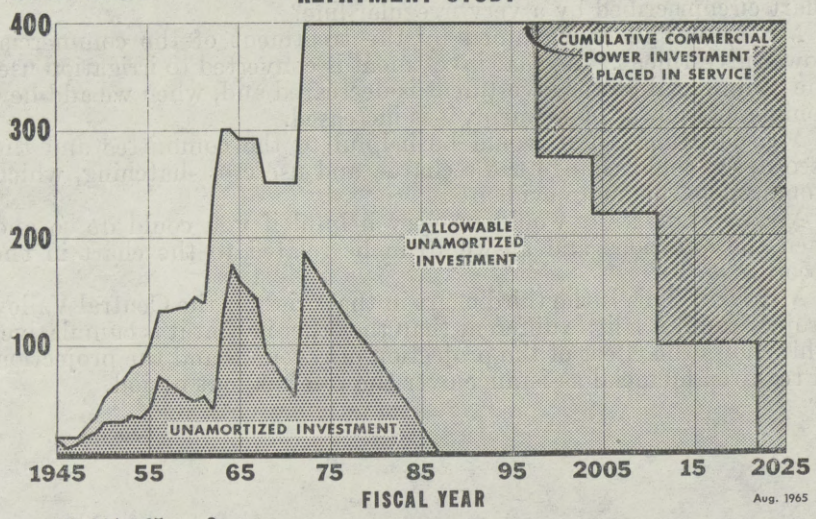


Chart 2 for the Central Valley has the same number of years, and presents the cumulative power investment and it also shows the allowable unpaid investment (light stipple) to accomplish payout in 50 years for each block of power. You could theoretically take this long to pay out each block of power and still repay within 50 years.

Actually, the power investment is being returned in much shorter time than would be allowed under the standard criteria. This is a very happy circumstance, to accomplish payout within this period of time.

Senator JORDAN. A question, Mr. Chairman.

The CHAIRMAN. Senator Jordan.

Senator JORDAN. Would you tell me, are the variations in the red line on the graph the result of codifying mechanical replacement?

Mr. LEE. This line goes up and down, the allowable unpaid balance goes up and down because of the treatment of irrigation pumping power.

In about 1962 we added Trinity and this increased the investment. Shortly after we added Trinity, we added the San Luis Canal. This converted a lot of power from commercial use to irrigation use, and when we converted that power, it no longer is considered to be interest bearing. It is no longer considered commercial power, it is an irrigation allocation and so we reduced the commercial power correspondingly in 1966 and 1967.

After we did that, we projected the anticipated addition of Auburn-Folsom South in 1972.

Senator KUCHEL. Let me just say, this is highly important, Mr. Chairman. I assume that when those charts are reproduced in the printed hearings you will not have the benefit of a green and red, and I just wonder whether mechanically, for example, the answers to the questions just now by Senator Jordan referred to that top line—I wonder in some fashion if we could have the questions posed differently?

The CHAIRMAN. I think it would be helpful if the questions and responses could be related to the lines on the chart so they would be identifiable.

Senator JORDAN. I will restate the question.

My question is, Why is the unamortized investment area on the chart circumscribed by a very irregular line?

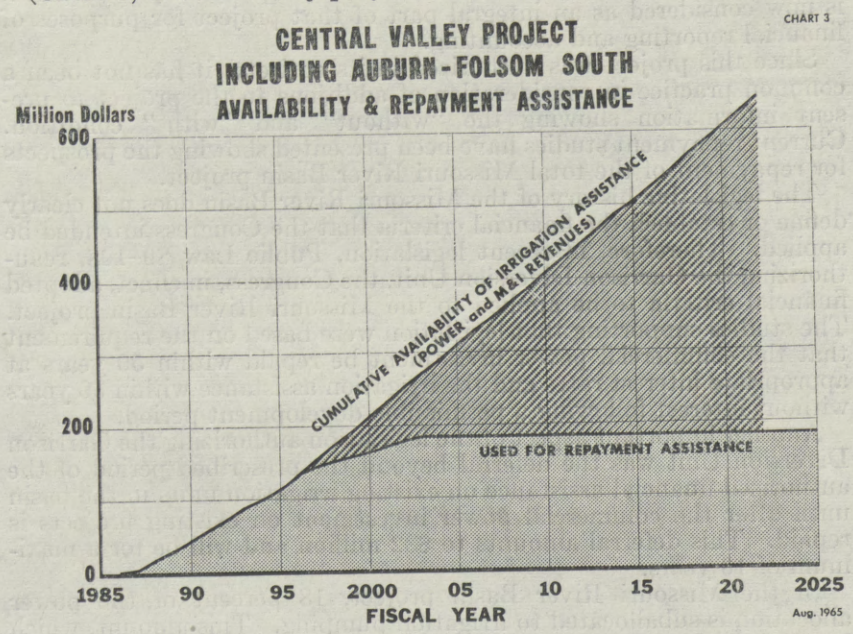
Mr. LEE. This is explained by the treatment of the commercial power investment. As that investment is converted to irrigation use, the commercial power investment is decreased and, when we add new commercial power investment, it is increased.

Mr. Chairman, if it would be helpful to the committee and the record, we could change these charts, and use cross-hatching, which would make this more evident.

Mr. CHAIRMAN. It would be very helpful if you could do so and then the questions and answers can be related to the chart in the record.

Mr. LEE. This is the third chart in the series for the Central Valley project and it is a little different than the other in that it is cumulative. This shows the effect of the projection of revenues and the projection of required financial assistance over the total payout period.

(Chart 3, Central Valley project, follows:)



The amount of financial assistance under the Central Valley project that is required is a little under $200 million. With the projection of revenues to the year 2022, we would have surplus revenues available for irrigation assistance in the amount of somewhat over $600 million. The difference between the two lines shows the unassigned revenues that would be available for irrigation assistance at any time.

The CHAIRMAN. In other words, what you are saying is that you have committed yourself thus far to just a little under $200 million?

Mr. LEE. Correct.

The CHAIRMAN. That commitment is for payment in connection with authorized projects. That is the lower line. And the upper line is what would be available over and above that which you have committed?

Mr. LEE. At any point in time, Mr. Chairman. For instance, at 2015 we would have approximately $310 million that could be anticipated. As we project out further, the magnitude grows.

Mr. HOLUM. Mr. Chairman, I think that these charts illustrate that the Central Valley project in California is an excellent project and its financial position is completely sound.

Now we would like to move to the Missouri River Basin project which includes all or parts of the seven States that are within the operating area of the Bureau of Reclamation and covers approximately one-fifth of the total land area of the United States.

This project, which was authorized by the Flood Control Acts of 1944 and 1946, is unique in that the plan involves 18 powerplants and several hundred irrigation units. The Fort Peck Dam on the main

stream of the Missouri River, which had been previously authorized, is now considered as an integral part of that project for purposes of financial reporting and accounting.

Since this project was authorized in its entirety, it has not been a common practice in consideration of additions to the project to present information showing the "without" and "with" condition. Current repayment studies have been presented showing the prospects for repayment of the total Missouri River Basin project.

The legislative history of the Missouri River Basin does not clearly define or establish the financial criteria that the Congress intended be applied. Therefore, in recent legislation, Public Law 89–108, reauthorizing the Garrison Diversion Unit, the Congress, in effect, adopted financial criteria to be applied to the Missouri River Basin project. The studies supporting that legislation were based on the requirement that the commercial power investment be repaid within 50 years at appropriate interest rates and the irrigation assistance within 50 years without interest following a permissible development period.

Another important aspect of the legislation authorizing the Garrison Diversion Unit was the deferral beyond the prescribed period of the authorized financial assistance on existing irrigation units in the basin until after the commercial power investment on existing projects is repaid. This deferral amounts to $32 million and will be for a maximum of 10 years.

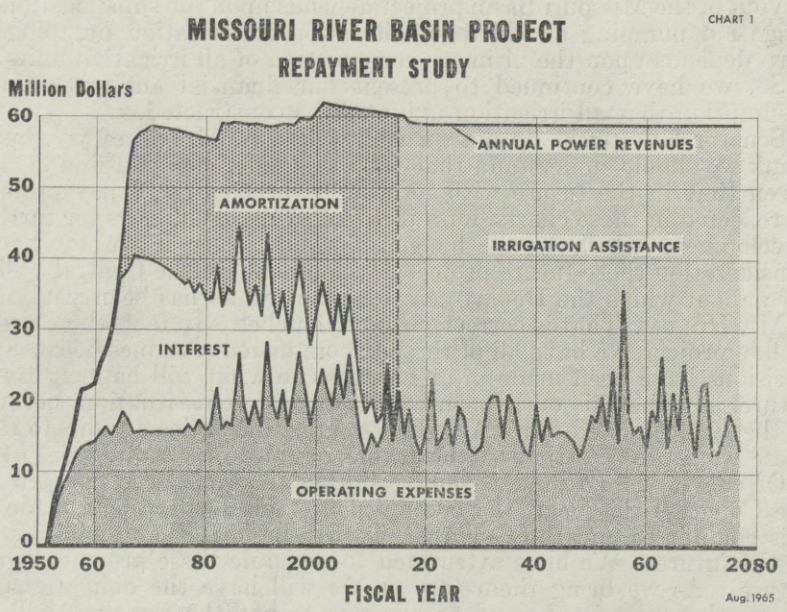
In the Missouri River Basin project, 18 percent of the power allocation is suballocated to irrigation pumping. This amount, which is reimbursable without interest, is an important factor in the repayment of the total project, since it reduces the amount of interest payments.

In order to provide needed flood control for downstream areas, the main stream dams which are primarily involved with flood control, navigation, power, and irrigation storage were constructed first. Most of the irrigation works remain to be constructed. As of the current time, it is estimated that 80 percent of the commercial power has been completed or placed under construction, while only about 10 percent of the irrigation facilities has been constructed or committed. Therefore, to insure the financial integrity of the total project, it is highly essential that the remaining irrigation units upon which the irrigation suballocation is based, be constructed.

Under terms of Public Law 88–442, the Congress deauthorized all remaining units of the Missouri River Basin project. This will mean that each new proposal will have to be reauthorized prior to the initiation of construction of such unit.

Again, we have three charts illustrating the repayment of the Missouri River Basin project as approved by the Congress by Public Law 89–108.

(Chart 1, Missouri River Basin project, follows:)



Mr. LEE. Mr. Chairman, the first thing I should explain about this chart is that it is extended to 2077.

This is 60 years after the last irrigation unit is scheduled for installation. This would give us a 50-year repayment period for irrigation, plus the 10-year development period.

As Secretary Holum indicated in his statement, in the Missouri Basin we have anticipated the total project, and this covers the total Missouri River Basin project. In this respect it is different from the chart we just showed you for the Central Valley project.

That covered only the existing projects including Auburn-Folsom South. This covers everything we anticipate.

Senator KUCHEL. Let me make sure I understand you. When you say this includes everything you anticipate, by that do you mean in this instance there is no authorization by Congress for the ultimate development of the Missouri Basin project, while, to the contrary, in the Central Valley project charts you utilize only those projects which do have congressional sanction?

Mr. LEE. That is true. That is the difference, and perhaps I should go back and explain just a little.

When the Missouri Basin project was originally authorized in 1944, it was authorized in total and the financial structure and management of the project was then established in terms of that total authorization, and 18 percent of the costs were suballocated to irrigation pumping.

Even though the Congress deauthorized, in effect, the remaining units of the Missouri Basin project, it has been necessary to maintain the same financial management principles for the Missouri Basin project as originally established after the project was originally authorized.

The reason it is necessary to maintain these principles is that the payout of the Missouri Basin project depends upon the suballocation to irrigation pumping and that suballocation to irrigation pumping in turn depends upon the ultimate construction of all irrigation units.

So, we have continued to present our financial analysis on the assumption that all irrigation units will be constructed.

Senator KUCHEL. I do not quarrel with that, Mr. Secretary, but I think we should understand that with this difference you find at any given time in the future with respect to the Central Valley project, as reflected in those charts, a project had available moneys for further development which would be considerably lower if we took into consideration those future project developments in the Central Valley area about which the Department for many years has been studying.

Mr. HOLUM. That is correct, Senator Kuchel. In fact, the Central Valley project, we have all of these uncommitted revenues because no decisions have been made in any way as to what will happen in the future. In the Missouri Basin we have a different situation, because in the 1944 Flood Control Act the Congress did at least indicate that these were projects that in the future ought to be built.

Of course, as a result of the legislation that has been enacted by the Congress this year, the commitments this Department made to this committee and the Congress, we will have the same obligations in the future. We have attempted to schedule these projects in the future. As we bring them to you, we will have the obligations to assure the committee—and to show you that the revenues will be available for repayment as they are scheduled to be repaid.

The CHAIRMAN. Mr. Lee, is it not a fact that in the Missouri Basin, the 50-year period does not start to run until the last power unit is on the line?

Mr. LEE. In the case of the Missouri River Basin project, the irrigation assistance does not start to be provided until the commercial power investment has been repaid and the commercial power investment in total is repaid in 50 years after each unit of investment goes on the line.

The CHAIRMAN. So that extends the period on out from that point?

Mr. LEE. Yes, sir.

Mr. HOLUM. But each commercial power unit will be repaid in a 50-year period, depending on when they were built.

The CHAIRMAN. But the 50 years does not start to run until the last unit is in. Is that not correct?

Mr. LEE. Yes; Congress provided in the authorization of the Garrison diversion unit that the then-existing investment in irrigation works that required assistance could be deferred until after the commercial power investment had been repaid, and as Secretary Holum indicated, this deferral involved $32 million and the maximum period of time was 10 years.

Senator KUCHEL. Excuse me, what was the intent of Congress in adopting that technique here exclusively?

Mr. HOLUM. In the legislation authorizing the Garrison diversion project and the studies we presented to the committee earlier, each one of these projects is different. This one is different principally from the point of view because of the urgent need for flood control downstream—the flood control portions and, of course, the big flood control dams are also the power generating dams and were constructed

first and very little irrigation has been constructed up to this time, so that——

Senator KUCHEL. You have a little different problem then.

The CHAIRMAN. It was to ease the burden on the irrigators because of what the Secretary, I believe, has just said. But I think it is important to point out the difference before you put the chart away, and this question applies to all of the charts. What would the chart look like if the interest on irrigation assistance were shown?

Mr. LEE. If the interest on the irrigation assistance were shown? Well, since irrigation assistance here is repaid after the commercial power investment, you have not delayed the repayment of power and, therefore, I would say that it would not affect the part of this chart relating to power repayment.

This is not true in the Columbia River Basin, but it is true here.

The CHAIRMAN. You say it would not affect the chart?

Mr. LEE. It would not affect the chart. The chart would still be the same. This is because the commercial power investment is completely repaid before we start to provide financial assistance to irrigation in this case.

Senator JORDAN. Mr. Chairman, may I ask a question?

The CHAIRMAN. Yes, Senator Jordan.

Senator JORDAN. The Central Valley project, of course, involves only one State. Could you tell us how many States are involved in the Missouri River Basin project?

Mr. HOLUM. There are seven States involved in the project. There are 10 States wholly or partly in the Missouri Basin. Three of them do not have irrigation—Missouri, Iowa, and Minnesota.

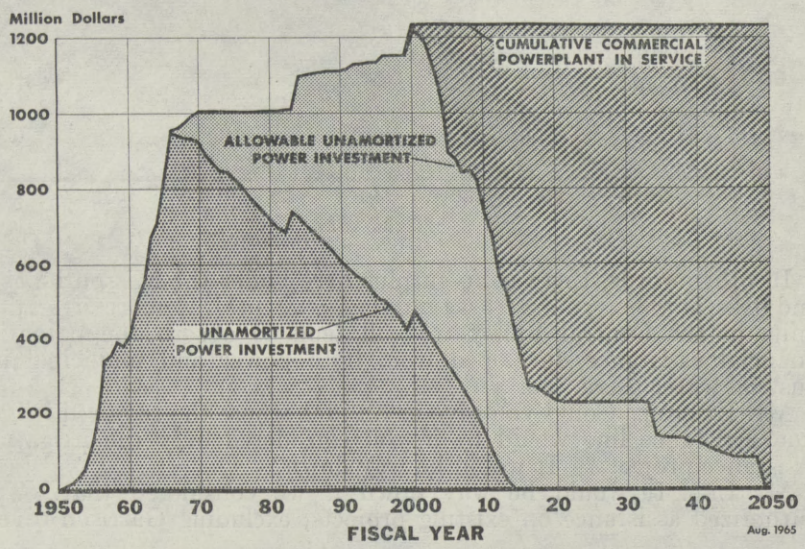
Senator JORDAN. They are treated as one basin irrespective of where the State boundaries may be?

Mr. HOLUM. Yes; the Missouri Basin project is considered one unit.

(Chart 2, Missouri River Basin project, follows:)

MISSOURI RIVER BASIN PROJECT
REPAYMENT STUDY

CHART 2

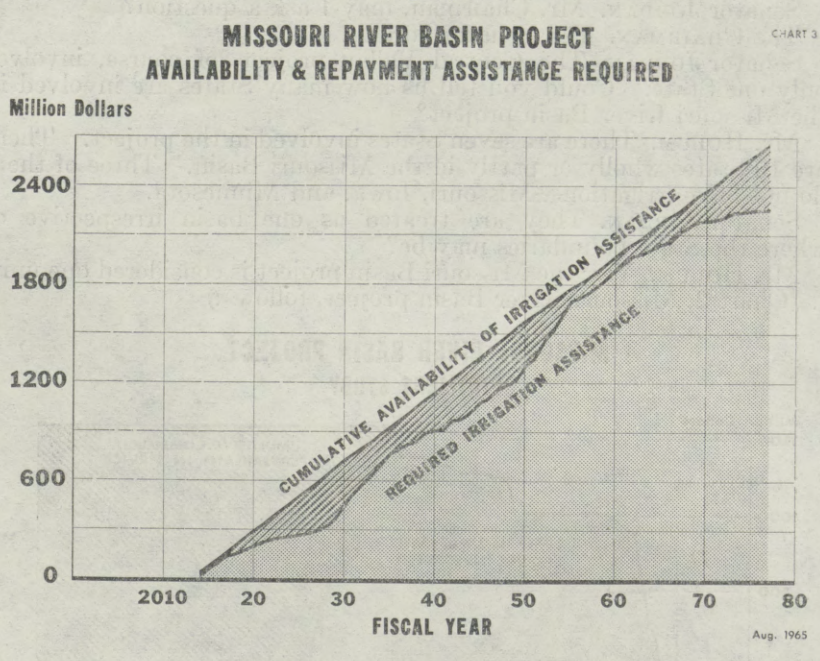


Mr. LEE. Now, chart 2 for the Missouri Basin project is comparable to chart 2 for the Central Valley project. We have the plant in service for commercial power. We have the allowable unamortized investment, that is the 50-year criteria—this is 50 years from the date each of these investments go on the line. This is the actual unamortized investment under the last financial adjustments that were explained during the Garrison diversion hearings.

The investment in power is now repaid somewhat ahead of the time that it would otherwise have been necessary to have met the 50-year payment criteria. And by paying this somewhat ahead of time we are able to provide financial assistance to irrigation to permit irrigation to go ahead as scheduled.

Senator Kuchel, the question you were getting at a moment ago when I showed the Central Valley charts, where there was a big space here not required for financial assistance, because of the difference in these two projects in the Missouri Basin, the required irrigation assistance line goes way out and is very close to the line depicting the available revenues for irrigation assistance.

(Chart 3, Missouri River Basin project, follows:)



In other words, there is no surplus here under the Missouri Basin and this is what you were saying. As we project more irrigation units in the Central Valley we will tend to absorb the potential financial assistance developed from both power and municipal industrial water there, too.

Mr. KUCHEL. Could you give us an idea where the required irrigation assistance line would be if you considered only the irrigation assistance projects? It would be way down?

Mr. LEE. It would be way down if we considered that. The authorized assistance on existing projects, excluding Garrison diver-

sion, is only $30 million, so it would hardly be evident here on the chart.

The Congress has just authorized the Garrison diversion unit and we had about $180 million of additional financial assistance on that unit, so that would put this line about here [indicating].

The CHAIRMAN. By "here" you mean near the bottom.

Mr. LEE. Yes, very near the bottom.

Senator MOSS. Are you saying, Mr. Lee, that the lower line showing required irrigation assistance assumes that the projects that were once authorized in 1944, and have now been deauthorized, will be rescheduled so as to require the amount of irrigation assistance depicted?

Mr. HOLUM. The required irrigation assistance line shown on this chart provides the power revenue systems for all of the power projects that were in the 1944 act that have now been deauthorized.

Senator KUCHEL. Is there a comparable payout period in the Missouri Basin project, 50 years plus development, as there is in the Central Valley project?

Mr. LEE. Yes, sir.

Senator JORDAN. Does the 50 years run from the time of the last project to come in the system?

Mr. LEE. No, the 50 years runs on each power project as it is added to the system.

The repayment requirement for each project is that it be repaid within 50 years, plus the allowable development period for irrigation, so this chart is projected for 60 years past the date of completion of construction of the last irrigation unit.

Senator JORDAN. As I read the chart, it runs closer, nearly to the year 2080.

Mr. LEE. 2077, Senator.

Senator JORDAN. 2077. If an additional project came into the system, would the repayment line be extended further than the year 2077?

Mr. LEE. Yes, sir; it would have to be.

Senator JORDAN. In a sense then, you are employing a rolling maturity with respect to the Missouri River Basin.

Mr. HOLUM. The reason the chart extends to the year 2077 is because in our scheduling, this is an internal matter that has to be confirmed by the Congress as they authorize projects. I assume the last irrigation unit was authorized and placed in service in 2017.

Mr. LEE. Senator, with reference to the use of the word "rolling maturity," perhaps I could explain that a little by the use of chart No. 2. When the Bureau of the Budget first used the term "rolling maturity" in the Budget Bureau Circular A–47, it was used to mean that each time you added an additional unit to a system, you may reschedule the then remaining unpaid power investment plus the new power investment for repayment in 50 years.

Senator JORDAN. Even though the first project on the line may have been paid out for, say, 40 years?

Mr. LEE. Even though the first project on the line may have been behind in repayment and would not have met the repayment criteria. It could have been rescheduled.

I want to make it very clear that all of these basin reports are based on the requirement that each unit of power investment be

repaid in its 50-year period, and it is not rescheduled for repayment when you add additional power units, and this is demonstrated by this "Allowable Unpaid Balance" line.

This allowable unpaid balance line is fixed and is 50 years from the date when each unit of investment goes on the line.

Now, if this were a so-called rolling maturity, then it would be impossible to fix this line. You would not know where it would be because each time you added——

Senator JORDAN. Exactly. I am glad you explained that.

The CHAIRMAN. On that same point that Senator Jordan raised, can you state now when the last power unit will go on the line? It is 50 years from whatever time that happens and this is a speculative thing that you have to resolve, I take it, based on judgment. But it is 50 years from the time the last unit is added, so if you add another power unit, then the 50 years does not start running until after that time.

Mr. LEE. That is correct.

The CHAIRMAN. If nothing else is authorized, when would the payout period be?

Mr. LEE. Our last allowable remaining unpaid balance figure is right short of 2050, so by subtracting 50 years from that, the last power investment would be made in about 1998, and I do not know the specific project this is. We could look it up for you if you wish, but it is a small upstream power project.

The CHAIRMAN. What I am saying is that this period could be extended continuously if Congress continued to add power units. If hydropower ran out, thermal could be added. Am I not correct in that?

Mr. LEE. That is correct.

Senator JORDAN. But each project would stand on its own 50 years?

Mr. LEE. When you did this, you would not extend the repayment period for the existing projects. You would extend the use of revenues from the old unit to help repay the new unit, which would be subject to repayment in 50 years.

The CHAIRMAN. I understand, but you would have the effect of extending the whole power component.

Mr. HOLUM. Our studies of the Missouri Basin are based on the assumption that the power investment is approximately 80 percent complete at the present time. Good units have been built when the big dams on the river were being started, and are being finished at the present time.

We turn to the Upper Colorado River storage project, which was authorized in 1956——

Senator JORDAN. May I ask one more question?

The CHAIRMAN. Yes.

Senator JORDAN. In the Missouri River project, as each power project is paid out in the 50 years' time, then the revenues from that power project continue to be made available to the system and are not returned to the Treasury?

Mr. HOLUM. All of the power revenues, Senator, go to the Treasury. Whether or not they will be used to assist further irrigation development or other types of water resources development will depend, of course, upon future actions by the Congress, because we are speaking here only of an accounting concept. These are revenues that are

available and can be used by the Congress to assist future development, if that is what the Congress desires to do.

The CHAIRMAN. The power revenues that become available after the payout of each component unit are used to pay for the next unit. Is that correct?

Mr. HOLUM. That is correct.

The CHAIRMAN. This is the whole basin accounting system, as I understand it, that is now applicable?

Mr. HOLUM. That is correct.

The CHAIRMAN. Then as the requirement comes in for payment on an irrigation cost, they likewise have to be paid at that time.

Senator KUCHEL. So that you have both a "rolling maturity" and a "rolling payout."

The CHAIRMAN. That is right. It is rolling forward.

Mr. HOLUM. Well, the whole idea, of course, is based on the concept that resource development is going to continue and that these funds will be available if the Congress makes such a decision to assist them.

The CHAIRMAN. I think it is well to point out, too, that Congress has arbitrarily set a 50-year payout period for power, whereas the life of the project, if this were being handled on a private utility payout basis, would be probably around 80 years—70 or 80 years anyway. So, if you used private utility accounting methods, you could justify a 70- to 80-year payout instead of a 50, is that not correct?

Mr. HOLUM. Very easily. Many of the power features of these projects have lives extending beyond the 80 years.

The CHAIRMAN. Let us say the Internal Revenue people would at least approve 70 or 80 years as a payout.

Mr. HOLUM. They have. And our repayment studies are based on the idea that as the items that are subject to wearing out wear out, that they will be replaced and we keep the projects practically as good as new condition throughout the repayment period.

Senator MOSS. Mr. Secretary, what you are saying is that this is really an accounting measure based so the Congress can assure itself that it is doing a financially sound thing? The actual dollars are not captured and put in the pot and then paid out.

Mr. HOLUM. That is absolutely correct, Senator Moss. This is an accounting concept, so that the Congress and the country can know what is happening financially to the Federal water resource development.

It there are no other question of the Missouri Basin, I will proceed to the Upper Colorado River storage project, which was authorized in 1956.

The storage project involves parts of the States of Wyoming, New Mexico, Utah, Colorado, and Arizona. The authorization of that project provided for the establishment of a fund which will be used to repay total reimbursable project costs, including necessary irrigation assistance. The authorization also required that the allocations to commercial power and municipal and industrial water be repaid within 50 years of the date of completion and those for irrigation within 50 years in addition to the allowable development period.

The Colorado River Storage Act also provided for the distribution of the surplus project revenues among various States for assistance in the repayment of irrigation costs on Federal projects, roughly in proportion to their contribution to total basin water supply. The

specific percentages for the distribution are: Colorado, 46 percent; Utah, 21.5 percent; Wyoming, 15.5 percent; and New Mexico, 17 percent.

The authorization provided for the construction of certain initial units of the project, including Glen Canyon Dam, Flaming Gorge, Navajo Dam, Curecanti, and associated powerplants and transmission systems. These main stem storage reservoirs included space required to reregulate the river flows to meet downstream requirements in order to permit construction of additional upstream irrigation projects.

The cost of such storage space for reregulation was allocated to irrigation and was assigned to be returned from power revenues. These costs are to be repaid within 50 years. When new participating units are proposed, a "without" and "with" analysis is prepared and a demonstration is made that the prospective revenues are adequate to assure repayment under the controlling criteria.

It should be recognized that this is the only basin account which involves apportionment of the potential financial assistance among the participating States. The specific apportionment of such assistance among the States has the essential effect of sterilizing a certain amount of potential financial assistance.

The Secretary cannot proceed with the construction of an individual participating unit within the boundaries of any State until the prospective unassigned revenues of that State are adequate to assure repayment within the specified periods and conditions.

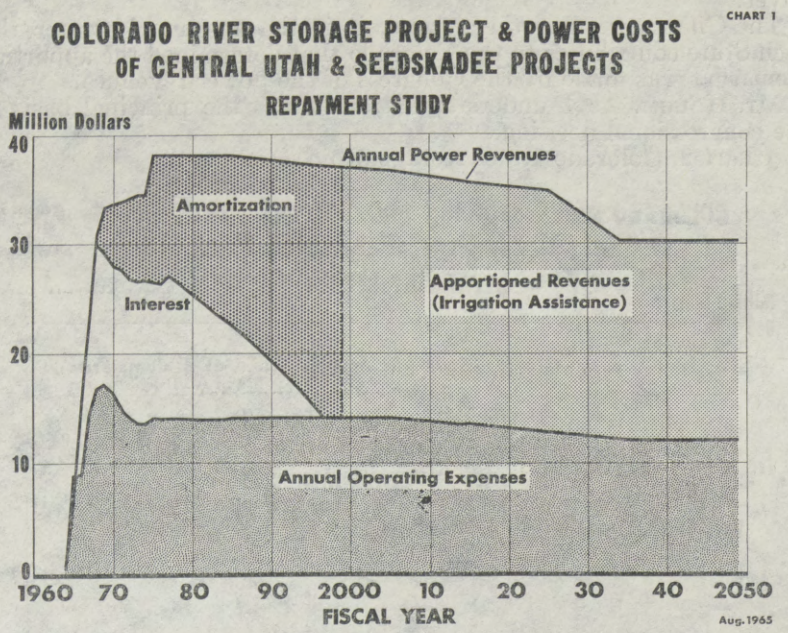
This means that it is necessary to accumulate prospective surplus revenues for a period of time until such a showing can be made. If the project were operated on a regional basis without such assignments, individual projects could proceed whenever the prospective revenues from the total project were adequate to assure repayment.

The unique feature of this project are that (1) it uses the fund approach, and (2) it prorates the fund among the States. The power rates have been set at a level which will actually repay the commercial power investment and the irrigation assistance on the dams in somewhat less than 50 years, so that surplus revenues will permit the construction of the participating projects sooner than would otherwise be the case.

Again we have three charts to illustrate the operation of the Colorado River Basin account.

(Chart 1, Colorado River storage project, follows:)

CHART 1



Mr. LEE. Mr. Chairman, this chart is prepared on the basis comparable to the other two. But there are two or three things that are unique about it that I would like to call your attention to.

First, it is expected that the annual revenues will decrease over time and this is because of the depletion of the flows of the Colorado River.

Second, we have a big increase here at this point in the green line (medium stipple) in the cost of operation and maintenance. This is the cost of interference with the power generation at existing plants, primarily Hoover Dam, which must be compensated for by the Upper Colorado River storage project, and this is the additional cost involved.

The schedule in the repayment study for the Colorado River storage project has been extended to 2049. This is 50 years, plus development period, after in this case, the investment in the last irrigation block has been made.

Now, the investment in the main stem storage dams involves an allocation to irrigation, $93 million. And this would be repaid in 4 years after the payout of the commercial power investment is accomplished.

So, after payout of the irrigation allocation in the main stem dams the remaining amount can be used for apportionment among the States.

The CHAIRMAN. Was it the basis for the formula of apportionment? Do you recall that?

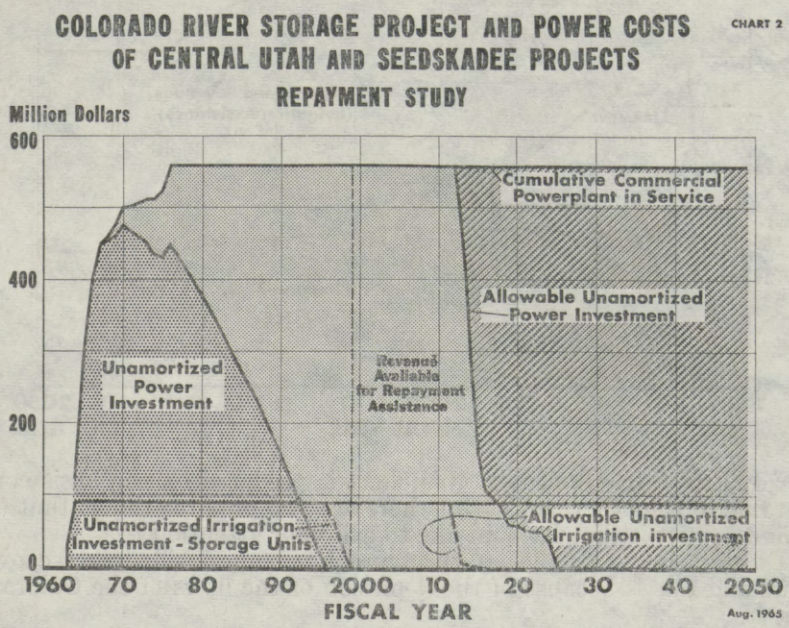
Mr. HOLUM. The formula, as I understand it, was determined by the Congress on the basis of the water that each of the States, essential-

ly on the basis of the water that each State contributes to the Colorado River.

The CHAIRMAN. In other words, it is the amount of water that each State contributes to the Colorado that determined the apportionment that was made by the Congress of the power revenues?

Mr. HOLUM. As I understand it, that was the principal basis for the congressional decision.

(Chart 2, Colorado River storage project, follows:)



Mr. LEE. This again is comparable to chart 2 of the other two series, except that it is a little more complicated and the reason it is more complicated is the allocation of part of the main stem dams to irrigation is covered by the next to bottom line.

The green line (top line) shows the cumulative commercial powerplant in service. The red line (heavy stipple) shows the unamortized power investment, and the blue line (light stipple) shows the allowable repayment period for irrigation.

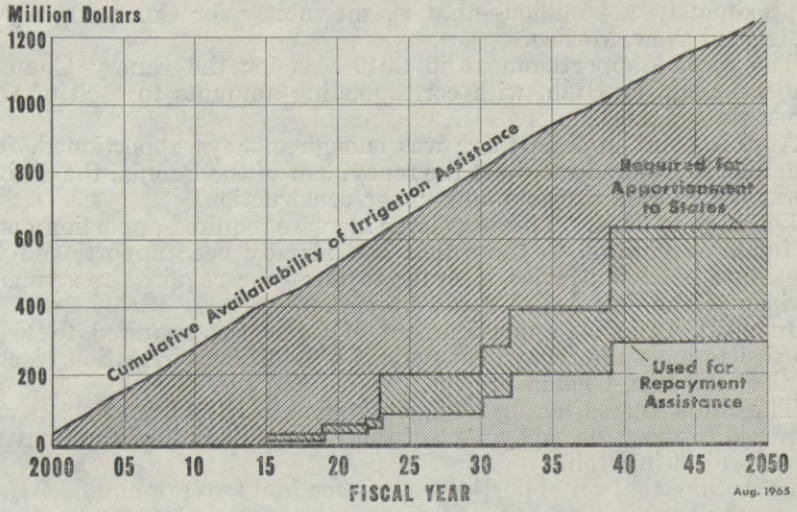
In other words, this project is being repaid in substantially less time than would be required to meet the 50-year criteria, and the irrigation storage cost in the main stem dams is being repaid in less time than would be required to meet the 50-year criteria. The objective of this is to accumulate revenues that can be apportioned among the States and that can be used to assist in other development at an early date.

(Chart 3, Colorado River storage project follows:)

CHART 3

COLORADO RIVER STORAGE PROJECT

AUTHORIZED PARTICIPATING PROJECTS AND EDEN PROJECT
AVAILABILITY AND REPAYMENT ASSISTANCE REQUIRED



On chart 3, the black line (heavy stipple) shows the projection of revenues from the year 2000 up to the year 2049; this is the amount that is theoretically available for irrigation assistance. The green line (light stipple) is the amount that is actually required for the projects that have been authorized, participating projects, and the red line (cross hatched) is the amount that has to be apportioned among the States because of the provision in the law that requires that whenever moneys are apportioned to one State, they must also be apportioned to the other States, and the effect of this—as the Secretary's statement said—is to sterilize the funds between the green line and red line (cross hatched).

In other words, these are not actually needed, but they are set aside to the States in order to meet this requirement down here.

This is a unique provision of the Colorado River project formula.

The CHAIRMAN. And what is the reason for that?

Mr. LEE. The reason for that is that the law requires that whenever funds are allocated or apportioned to the States, that a proportionate part must go to all of the States involved, and so whenever you need money for one irrigation project in a State, you must apportion a share of the prospective revenues to all States, even though the other States do not need it at that time.

The CHAIRMAN. Could you indicate to the committee where the funds are being used and where they are not being used in the basin States?

Mr. LEE. I would like to have Paul Sant, who is from Salt Lake City, the regional economist in Salt Lake City, answer that question specifically about where the participating funds are being used in projects involved in the States.

Mr. SANT. This is the authorized units now. This first——

The CHAIRMAN. You say this. Try to identify it as closely as you can on the chart so the record will be understandable.

Mr. SANT. The moneys were first apportioned to meet the repayment period of the Vernal unit of the Central Utah project requiring some $6 million. In order to apportion $6 million to Utah, it required approximately $24 million—that is, the money for Colorado, Wyoming, and New Mexico.

The second apportionment in 2019 was for the Emery County project, again in Utah, with corresponding amounts to each of the other three States.

At this point in time there was enough moneys apportioned, for example, to Colorado to meet the repayment of the Paonia, the Smith Fork, the Florida projects now under construction.

Let us go to 2024. This next large increase required apportionment of funds in addition to those that had already been apportioned to the State of New Mexico in order to meet the required repayment periods of the San Juan-Chama project.

In 2030, again an apportionment of funds was required to New Mexico to meet the repayment periods of additional irrigation blocks in the San Juan-Chama project.

The units thereafter in 2033, approximately, and in 2038, were required to meet the repayment of the Bonneville unit of the Central Utah project in Utah.

Each time that an apportionment is made, there are unused funds for three States having been triggered, as we have called it, by the one project in the particular State. A part of these revenues, a portion beyond the authorized unit, are available to meet new projects. The repayment, for example, of the potential Animas-La Plata, the Dolores, or other projects not yet authorized. This was contemplated in the original act and the Department makes a presentation as to the funds available in each State to meet the repayment required on the particular project being proposed.

The CHAIRMAN. I wonder if you could summarize. I take it that Utah has used a substantial portion of the amount allocated to it?

Mr. SANT. This is true.

The CHAIRMAN. Can you run it down by States in the Colorado Basin—those having the greatest unused portion and so on?

Mr. SANT. If you will permit me to get another book.

The CHAIRMAN. All right.

Mr. SANT. In 2039 when we will have apportioned moneys to meet the requirements of the repayment in Utah, the Bonneville unit of the Central Utah project, there will be no moneys left in the State of Utah. In Colorado there will be approximately $230 million remaining for additional projects. In New Mexico there will be approximately $59 million. In Utah, as I said, there will be no remainder. In the State of Wyoming there would be approximately $49 million.

These moneys within the $635 million required for the authorized projects would be available for repayment of projects not yet authorized.

The CHAIRMAN. So Colorado has the biggest amount remaining?

Mr. SANT. This is true, yes, sir.

The CHAIRMAN. And then New Mexico, then Wyoming?

Mr. SANT. Right.

Senator ALLOTT. You are speaking of the year 2039?

Mr. SANT. Actually, 2049 is correct. That would be the end of the repayment period on the last irrigation block of the Bonneville unit of the Central Utah project.

The CHAIRMAN. All right. Any further questions on that?

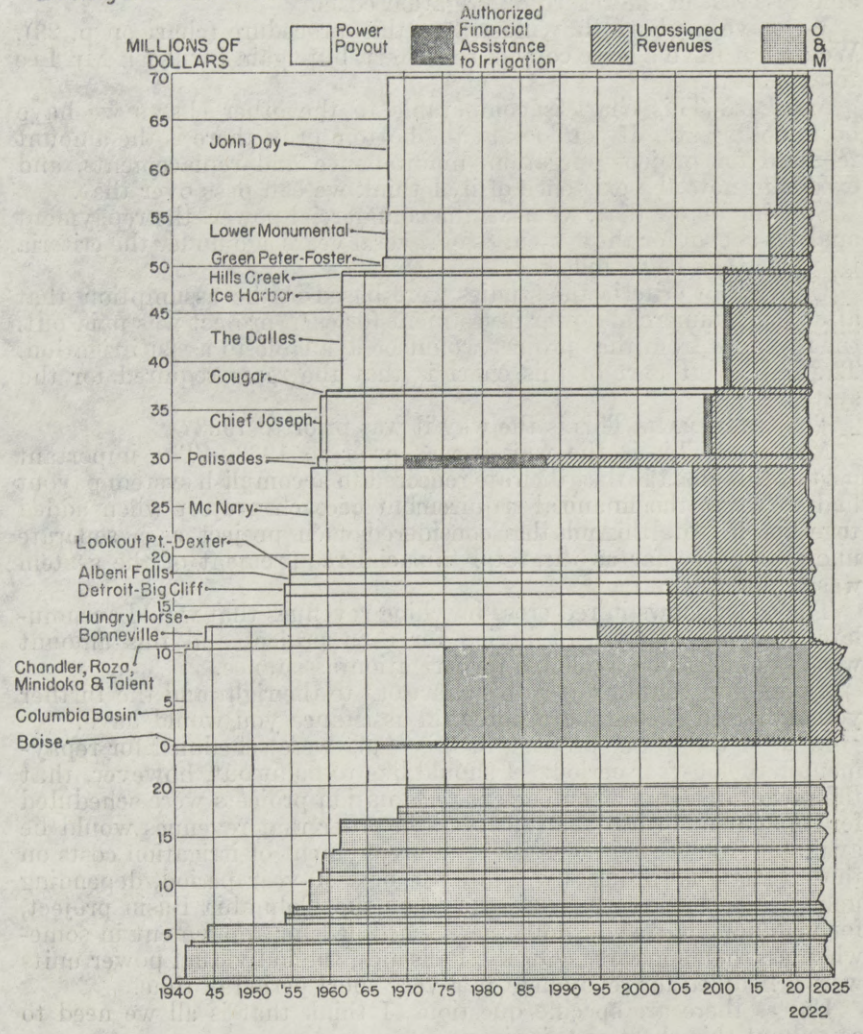
Mr. Lee?

Mr. LEE. That is all, sir.

Mr. HOLUM. If there are no further question on the Colorado River storage project, we will turn now to the Columbia River Basin.

As the chairman noted at the beginning, hearings directed toward the establishment of a basin account for the Columbia River have been

ASSIGNMENT OF POWER REVENUES
FROM FEDERAL POWER PROJECTS
Existing and Under Construction in the Pacific Northwest



held on two previous occasions. The first was in 1950 and the second in 1960.

In both cases, proposed legislation would have established an account which is somewhat different than either the project approach or the fund approach, but would have resulted in substantially the same final effect. Those bills would have authorized an accounting procedure which could have been used to demonstrate the financial feasibility of all new projects when added to the system.

The studies were then based upon the payout of the individual power projects from the pooled system revenues. Under that approach, the system power rate had to be set at a level to meet the total financial requirements of all the individual units when added together. After payout of each individual project, it was assumed that the portion of the system revenues specifically assigned to the repayment of the capital cost of each individual project would thereafter be available to assist in the return of irrigation costs.

We have a chart that illustrates this procedure (chart on p. 23). We do not have a large copy of this chart, but again I will ask Mr. Lee to explain it.

Mr. LEE. This chart is comparable to the other charts we have been looking at. If you look at the bottom of it, there is the amount required for project operation, maintenance and replacements, and except to note the existence of it, I think we can pass over that.

Starting above that, we have the commercial power, the repayment analysis shown for the system as of several years ago under the criteria that was then being followed.

Under that criteria the studies were based in the assumption that after the commercial power investment for each project was paid out, the revenues from that project would be available to assist irrigation. The important part of this chart is that the rates required for the system——

The CHAIRMAN. This is the way it was prior to 1963?

Mr. LEE. This is the way it was prior to 1963. The important part of this chart is that the rate required to accomplish system payout had to cover the financial requirement of each project when added together in total. And this considered each project as a separate undertaking so far as the total financial requirement of the system was required.

The chart shows in red cross-hatching revenues that would accumulate after the repayment period for each project and this amount was assumed to be available for irrigation assistance.

Again, you could project this chart out to the right and the further you projected it, the more potential assistance you would have.

Most of the power projects in this chart were scheduled for repayment in the 50-year period. I should like to point out, however, that the power investment on certain reclamation projects were scheduled for repayment in less than 50 years in order that revenues would be available from power to assist in the repayment of irrigation costs on those individual projects within a 40- or a 50-year period, depending upon the authorization requirements on the Columbia Basin project, for instance, individual units were scheduled for repayment in somewhat less than 50 years. On the Palisades, the individual power units were scheduled for repayment in a very short period of time.

Unless there are specific questions, I think that is all we need to say about this chart at this time.

Mr. HOLUM. I think, as the chart illustrated, the account was designed specifically to assist irrigation. Except for the possibility of rescheduling the payout of the power investment over longer periods of time, it did not benefit power.

The bill considered in 1950 involved the use of the interest component of power revenues to repay irrigation costs, and it provided for the authorization of several individual units comparable to the storage and participating units of the Colorado River storage project.

The bill that was considered in 1960 provided that under certain conditions revenues from the Federal Columbia River power system could be used for financial assistance outside the basin or Bonneville Power Administration marketing area.

Since the last hearings to establish the Pacific Northwest account, an important change has occurred in the administration of the Columbia River Federal power system which has a definite bearing upon the participation of power in the account and its effect upon the role that such a basin account would now play.

This change involved the adoption of the consolidated system payout by the Secretary in 1963. Whereas before it was the practice to pool system revenues, the adoption of the consolidated payout system resulting in the pooling of both revenues and costs of repayment of the system as a single project. The consolidated payout system made it possible to use revenues from power projects after they are repaid to aid both new power and irrigation projects.

The payout on a project basis is consistent with the terms under which new projects are added, the operation of the system and the allocation of costs of the system.

Under the consolidated payout system, the irrigation assistance would be scheduled for repayment as it falls due along the required repayment of commercial power.

The scheduling involved for both irrigation and commercial power is illustrated on the next chart.

The CHAIRMAN. Before you start on the chart, Mr. Lee, I would like to ask you about the interest component. Legislation was introduced in 1950 which would utilize the interest component of the power revenues to pay the irrigation costs. Would you explain that concept?

Mr. LEE. The 1939 Reclamation Project Act specifies that the power rate shall be set at a level which will return 3 percent on the power investment and stemming from that provision of law there has been much controversy over exactly what it means: Whether this provision of law requires that the entire investment be returned with 3 percent interest or whether the Secretary of the Interior must set a rate which would amount to at least 3 percent of the power investment. There was a Solicitor's opinion which held that the Secretary was obligated simply to set a rate which would amount to 3 percent and that it was not necessary to return interest, so to speak, to the Treasury, and that the interest could be used to provide financial assistance to irrigation.

So, there was a period in history, following this interpretation, that Reclamation reports were submitted to the Congress on the assumption that financial assistance would be secured through the use of interest.

Perhaps I could illustrate this with one of the charts here. According to this interpretation it was ruled the interest did not have to be

returned to the Treasury, but the interest could be used to provide financial assistance to irrigation, and so——

The CHAIRMAN. You are talking about interest, of course, from the power investment?

Mr. LEE. Yes.

The CHAIRMAN. All right.

Mr. LEE. So, under that interpretation the interest was available for financial assistance to irrigation as well as the unassigned revenues.

The interest component and the so-called unassigned revenue were both available, and we submitted some of our reports on this basis. The Kennewick Division of the Yakima project was submitted on that basis and the Congress in authorizing that project specified that the interest on the power investment should be calculated at 2½ percent, and that one-fifth of that amount, or one-half of a percent, should be used to provide financial assistance to irrigation on the Kennewick Division.

As far as I know, that was the only project authorized on that basis, but several of them were presented with such analyses and this was a common understanding at that time.

The CHAIRMAN. And what has been the policy since that time?

Mr. LEE. Well, starting about 1954, about 11 years ago, this decision was reversed and the conclusion has been, as a matter of policy, that the Department will pay interest on the power investment and that these revenues are not available for financial assistance to irrigation.

Mr. HOLUM. Mr. Chairman, one of the reasons that we found the Missouri Basin project in difficulty, was the fact that originally the financial management of the project was structured on the basis of using the interest component to assist irrigation. As Mr. Lee has said, this idea was rejected during the 1950's and in the payout studies that we completed and were finally approved by the Congress this year, we rejected the idea also. We did not use the interest component of the Missouri Basin project, although it had been used at one time.

The CHAIRMAN. So, roughly since 1954, this doctrine no longer has been followed by the Department as a means of assisting irrigation?

Mr. LEE. That is correct, sir.

Now, coming to the specific chart that illustrates the effect of a consolidated payout system. If you compare the two, you will note in the last one that each time a power unit is added, the revenues from previously repaid power units are then assumed to be available to assist in the repayment of the new unit.

The CHAIRMAN. This is the practice that has been followed in other basins?

Mr. LEE. This is the process followed for all other projects where we have basin accounts. This is the effect of the consolidated payout system now in use.

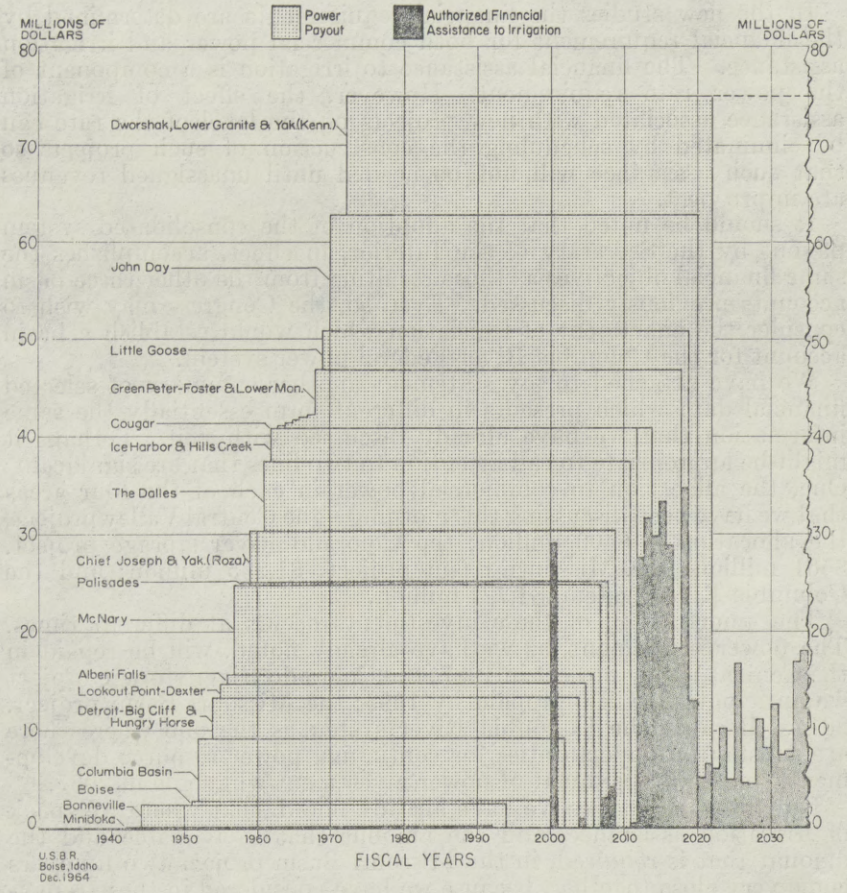
There is one other thing about the two charts I would like to point out. Previously financial assistance was not provided until all commercial power investment for that particular project was repaid.

Now, in order to meet the criteria for 50-year repayment for irrigation assistance it is necessary to—and this is evident by the second chart—to schedule some of the irrigation assistance for repayment

prior to the completion of the repayment of the commercial power investment.

This has the effect of making irrigation reimbursable with interest when you repay it prior to the completion of the repayment of the commercial power payout.

AN ANALYSIS OF ANNUAL AMOUNTS REQUIRED TO RETURN FEDERAL MULTIPLE-PURPOSE PROJECT CAPITAL COSTS ASSIGNED TO BE MET FROM POWER REVENUES.



This is one of the major differences that has resulted from adopting the consolidated payout system. Also under this new system, power revenues are used to assist power as well as irrigation, whereas before, power revenues were used to assist irrigation after the individual units were repaid.

Mr. HOLUM. When the Secretary approved the consolidated payout for the Bonneville system in 1963, every effort was made to

make this new payout system for the Columbia Basin project and the Bonneville system consistent with the procedures that were followed in other regions where similar circumstances existed. These are the results as illustrated in these two charts.

The CHAIRMAN. All right.

Mr. HOLUM. Under the previous studies, the financial requirement of the power system dictated the level of rates required to meet the payout of the commercial power investment. In those studies the provision of financial assistance to irrigation did not affect the level of the rate requirements, except in those cases where the power payout period was shortened to provide irrigation assistance within a specific time.

In the new studies the financial requirements are determined by the financial requirement for both commercial power and irrigation assistance. The financial assistance to irrigation is a component of the power rate requirement. However, the effect of irrigation assistance associated with new projects on the level of the rate can be eliminated by scheduling the construction of such projects so that such assistance will not be needed until unassigned revenues are in prospect.

It should be noted that the adoption of the consolidated system payout by the Secretary of the Interior, in effect, accomplishes the same financial objectives as those resulting from the other three basin accounts previously discussed. Even so, the Congress may wish to consider the enactment of legislation which would establish a basin account for the Columbia River Federal power system.

We have attached to my statement another summary of selected financial data which presents in different form essentially the same information that we have already discussed with you. Perhaps it might be appropriate to call attention to two lines that are significant: One, the allocation to commercial power in each of the four areas that we have been discussing this morning—the Central Valley project, the allocation is $400 million; the Colorado River storage project, $561 million; the Missouri Basin project, $1,235 million; and the Columbia River system, $4,724 million.

The amortization of these investments occurs at different times. The power investment, as we have already noted, will be repaid in the Central Valley project in 1987; the Colorado River storage project we anticipate it will be repaid by 1996; the Missouri Basin project, 2014. Because the Columbia River system is the one where there are substantial opportunities for continuing power resource development, the final repayment of power investment will come in 2037.

I might note, too, as we have already noted, that where we speak of irrigation assistance, and the amount that is available and the amount that is required, in the Missouri Basin project two numbers come very close together, because we have considered in these repayment studies not only existing authorized projects, but all projects, that were included in the Flood Control Act of 1944.

I think, Mr. Chairman, that Mr. Lee and I have completed our presentation. We will be very happy to discuss these ideas with you and answer any questions that occur to members of the committee.

(The summary referred to follows:)

Summary of selected financial data—Central Valley, Colorado River storage, and Missouri River Basin projects and Columbia River Federal power system

[Unit—Millions of dollars]

Item	Central Valley project	Colorado River storage project	Missouri River Basin	Columbia River Federal power system
Estimated cost [1]	$1,924	$1,361	[2] $4,852	$6,670
Financial data through year	2022	2049	2077	2046
Allocation to commercial power [3]	$400	$561	$1,235	$4,724
Installed power capacity (megawatts)	1,456	1,352	2,768	20,657
Gross power revenues	$1,750	$2,939	$6,928	$19,180
Operating expense	$785	$758	$2,161	$6,472
Net revenue	$965	$2,181	$4,767	$12,708
Interest payments (power)	$97	$284	$866	$5,870
Amortization payments:				
Power costs	$400	$561	$1,235	$4,724
Other costs	[4] $10	[5] $93		
Power investment repaid fiscal year	1987	1996	2014	2037
Irrigation assistance:				
Available	[6] $639	$1,243	$2,666	$2,114
Required	$176	[7] $635	$2,260	$689
Uncommitted	$463	$608	$406	$1,425

[1] Includes costs of recreation, fish and wildlife, investigations, etc.
[2] Does not include Corps of Engineers' costs for "other works" amounting to $1,256,000,000, which are not directly associated with the multiple-purpose project—such as single-purpose flood control works for navigation, levees, etc.
[3] Includes reimbursable interest during construction.
[4] Repayment aid to waterfowl conservation.
[5] Costs of storage units allocated to irrigation.
[6] Includes repayment assistance (aid) from municipal and industrial water revenues totaling $181,000,000.
[7] Includes $340,000,000 "apportioned" but not used in repayment of authorized participating projects.

The CHAIRMAN. First, I would like to refer to the table entitled "Summary of Selected Financial Data."

On the top line you have the estimated cost. The first is the Central Valley project, then the Colorado River storage project, the Missouri River Basin, and the Columbia River Federal power system.

Is it not true that in the first three basins, not including the Columbia, those projects were authorized as multiple-purpose projects with the inclusion of irrigation features?

Mr. HOLUM. That is correct.

The CHAIRMAN. Whereas, in the Columbia River power system, other than the Grand Coulee project, the Boise project, and a few others, all of the units are nonirrigation projects. In other words, they are for power, navigation, and flood control?

Mr. HOLUM. Mr. Lee tells me that Yakima should also be included in the irrigation category.

The CHAIRMAN. Yes; but I mean of the total of $6,670 million in the Columbia River Federal power system, a substantial part was authorized for nonirrigation purposes?

Mr. HOLUM. That is right.

The CHAIRMAN. And that can be supplied, of course, for the record with a breakdown?

Mr. HOLUM. We will be happy to, Mr. Chairman.

(The information requested is as follows:)

Columbia River Federal power system

	Millions
Estimated cost	$6,670
Allocations:	
Commercial power	[1] 4,724
Irrigation	1,135
Flood control	422
Navigation	364
Highway improvement	68
Recreation	21
Fish and wildlife	20
Municipal and industrial water	[1] 6
Other	11

[1] Includes interest during construction period.

The CHAIRMAN. I make this point because development in the Columbia Basin is very different from that of the other basins.

Now, in view of the changes that were made by the Secretary of Interior in April 1963 in the accounting system for the Federal river power system, is it necessary now to pass basin account legislation? Do we not have, in effect, a basin account?

Mr. HOLUM. Mr. Chairman, I think certainly we have, in effect, a type of a basin account. I think the Congress is confronted with the same situation that you considered, and finally led to the adoption of the Water Resources Recreation Act. We have, in effect, a basin account.

However, the Congress might consider the desirability of prescribing in more detail the type of rules which should be followed by the Secretary of Interior in administering that basin account and making his presentations to the Congress. We could have accomplished the purposes of the Water Resources Recreation Act by dealing with the problems as they developed in relationship to individual projects.

The Congress in this instance decided to enact legislation that prescribed the general rules to the Secretary of the Interior and the Secretary of the Army and the other agencies in the water resources field were to follow in dealing with recreation and fish and wildlife development, and the water resources development.

I think generally we have the same situation here. You have, in effect, a basin account now. There is also the alternative point that the Congress may wish to spell out more specific rules for the administration of that account, and if they do, of course, general legislation would be appropriate.

The CHAIRMAN. Senator Jordan wants to ask a question at this point.

Senator JORDAN. Going back to your statement here on page 18, Mr. Secretary, you say, "It should be noted that the adoption of the consolidated system payout by the Secretary of the Interior"—this is in the last paragraph—"by the Secretary of the Interior, in effect, accomplishes the same financial objectives as those resulting from the other three basin accounts previously discussed."

And then you end up, and I am a little surprised to hear you end up by saying that no further basin account action or legislation is necessary, because you have already implemented it.

I submit it has not been implemented, that it is entirely different from that which is operating, for instance, in the Missouri Basin where the seven States share, as a basin, in the basin account.

It is different in the Upper Colorado Basin where the States and the power revenues are distributed on the basis of their presumed watershed contributions to the flow of the river. In the case of the Columbia River Basin, the effect of the 1963 regulation is to freeze the reserves which our reclamation projects are building up in Idaho—to assimilate them and take them into the whole Columbia Basin accounting system and leave Idaho without any reserves from Idaho projects to take care of further reclamation projects in Idaho. This is the simple statement of it.

I contend that, by your implementing of the accounting system which you have installed in all good faith, you have not made it possible for future reclamation projects in Idaho to share in the downstream power which our water contributes to.

Mr. HOLUM. Senator Jordan, I do not think that that is the case. I think the Congress has available to it now, and will have available to it in the future, all of the necessary machinery for providing the next financial assistance to irrigation projects in southern Idaho.

I think that the projects that have been considered since the Secretary adopted the consolidated payout system in 1963 have been approved by the Congress. I think the vehicles are here. Congress will act one way or another, either in general legislation or in relationship to specific projects to provide the necessary financial assistance.

Senator JORDAN. But it is necessary for each project in Idaho to establish some right to downstream power benefits. This is not required of downstream projects themselves. Is that not a fair statement?

Mr. HOLUM. Well, that is why I suggested that the Congress may wish to consider adopting specific rules that the Department should follow.

Senator JORDAN. I think you have provided——

Mr. HOLUM. I am sure that we will present individual projects for the consideration of the Congress in their decision.

The CHAIRMAN. Of course, our hearing today is just a preliminary examination of this problem. However, I will say that if one wants to look into the relative contribution of the States involved, then my State of Washington, and to some extent Oregon, will be making available the bulk of the power revenue—the lower Columbia is where the power revenues are generated. In the upper areas of the Snake, of course, we do not have any great Federal power project. The power projects are all located in our area, so if you apportion it on that basis, you would come to different conclusions, too.

Senator JORDAN. While we are on the subject, I think we need certainly to explore some fairer allocation than simply to restrict future reclamation projects in Idaho to those of the power revenue assistance which might be available from power projects in Idaho. I believe, and I would ask that the Secretary provide for the record the contribution of water which each State in the Columbia Basin makes, we will say, to the Grand Coulee project, to all of the projects downstream, if that is possible. I think we need to explore this thing, Mr. Chairman.

The CHAIRMAN. I agree, but I say with that, let the Secretary also supply the amount of Federal power that comes from each of the respective States.

(The information requested is as follows:)

Columbia River water supply

	At The Dalles	At the mouth
Canada	39	29
Washington	11	18
Idaho	27	20
Montana	13	10
Oregon	7	20
Wyoming	3	3
Utah	(1)	(1)
Nevada	(2)	(2)
Total	100	100

[1] Almost none.
[2] Some.

Generation for Bonneville Power Administration, fiscal year 1965

	Generation, megawatt-hours		Date in service
	Fiscal year 1965	Fiscal year 1964	
Bureau of Reclamation:			
Chandler	46,293	62,680	Feb. 13, 1956
Grand Coulee	11,079,599	11,234,779	Sept. 28, 1941
Hungry Horse	1,036,390	938,764	Oct. 29, 1952
Roza	50,195	38,315	Aug. 31, 1958
Total	12,212,477	12,274,538	
Corps of Engineers:			
Albeni Falls	220,191	185,841	Mar. 25, 1955
Bonneville	3,365,975	3,502,132	June 6, 1938
Chief Joseph	6,191,688	5,234,586	Aug. 20, 1955
Cougar	89,835	37,421	Mar. 25, 1964
Detroit	371,917	382,997	July 1, 1953
Big Cliff	87,254	98,774	June 12, 1954
Hills Creek	151,858	159,291	May 2, 1962
Ice Harbor	1,920,331	1,809,481	Dec. 18, 1961
Lookout Point	362,432	333,568	Dec. 16, 1954
Dexter	69,132	80,460	May 19, 1955
McNary	5,689,612	5,066,389	Nov. 6, 1953
The Dalles	5,819,167	5,189,289	May 13, 1957
Total	24,339,392	22,080,229	
Total, excluding southern Idaho	36,551,869	34,354,767	
USBR southern Idaho:			
Anderson Ranch	97,696	111,969	Dec. 15, 1950
Boise River diversion	4,340	3,842	1912
Black Canyon	37,032	58,260	1925
Minidoka	102,075	80,207	May 7, 1909
Palisades	533,189	483,348	Feb. 25, 1957
Total	774,332	737,626	
Total, including southern Idaho	37,326,201	35,092,393	

[1] Includes transfer from Grand Coulee, Chief Joseph, and Roza for USBR.

Senator JORDAN. I take the position here to say that every kilowatt that is generated in the basin owes a duty to the watershed. I do not think the burden should be borne wholly by Federal power installations in a particular State. I think it should be borne by non-Federal, private, Federal alike.

The CHAIRMAN. You mean that the private——

Senator JORDAN. Indeed I do. Indeed I do. Before we get through with the project basin account, I think we have to levy against every kilowatt-hour that is generated in a river basin to support irrigation.

The CHAIRMAN. Then will the individual retailer be required to make up that payment?

Senator JORDAN. No. In the case of a licensed project, at the termination of the 50-year license period of non-Federal project, if and when a continuation or renewal of that license is granted and new rates are calculated, then included in the power rate structure at that time should be an assessment for the assistance of irrigation. Such an assessment should be made if we are to have a true basin account.

The CHAIRMAN. The Federal Waterpower Act of 1920, as amended, stipulates, I believe, that at the end of the license, at the end of the 50-year period, the Federal Government has the right to take over the property. The issues and procedures have not been finally resolved. Is this not substantially the situation?

Mr. HOLUM. Questions concerned with the relicensing of projects are very rapidly going to be before us as some of the older licenses begin to expire.

The CHAIRMAN. Then there is a question as to whether they should become Federal projects, as authorized by present law, and the power revenues go to the Federal system.

Senator JORDAN. In either case, whether they go to a Federal system or whether the licenses are renewed to the original applicant, under my proposal, revenues would be available from every kilowatt generated in the system for the assistance of irrigation. I think this proposal should be explored fully.

The CHAIRMAN. Of course, this goes to the whole question of how far and to what extent we should subsidize reclamation projects. I think it is something we have never gone into in depth in this committee and that is why I think this hearing is very useful.

I do not have any fixed idea, but I can certainly conceive of a situation in the future where there can be unjust enrichment. In other words, a portion of the power bill paid by the ratepayers would be going to individual landowners.

I think there is a real question as to how far one should go and that is one of the purposes of the hearing that we are conducting this morning.

Senator JORDAN. Mr. Chairman, I just want to be sure that I am understood here, because I think that my State has come up on the short end of the new accounting system that has been inaugurated by the Bonneville Power Administration.

Let us take the case of the Palisades project. I would like to send down to the Secretary a copy of the power system's average rate and repayment study put out by the U.S. Department of the Interior for January 1963.

Now, Mr. Secretary, referring to page 8, under the old payout schedule which prevailed until 1963, am I correct in saying that the power costs of Palisades would have been paid out in the year 1968?

Mr. HOLUM. Yes, that is correct.

Senator JORDAN. And am I correct in saying that the assistance to irrigation would have been paid out in the year 1986? That is under your chart?

Mr. HOLUM. That is correct.

Senator JORDAN. And at the end of the year 2008, a surplus would have been built up in the Palisades account alone of $28 million, or thereabouts, is that not correct?

Mr. HOLUM. Yes, that is correct.

Senator JORDAN. But under your Executive order of 1963 the Palisades, along with other Idaho reclamation projects, were taken into the whole Columbia Basin accounting system. In a sense, then, these reserves were wiped out for any use for which Idaho might put them. Is that not correct?

Mr. HOLUM. Yes, that is correct up to that point.

Senator JORDAN. Any future Idaho projects confined strictly to power assistance from Idaho Federal projects would have been denied these reserves which otherwise would have accumulated under the old system?

Mr. HOLUM. Yes, Senator. This specific $28 million was not available, but the total financial assistance available from the Bonneville system——

Senator JORDAN. So to the extent that Idaho cannot participate in project revenues downstream, we are being penalized by the new accounting system, are we not?

Mr. HOLUM. Only if prior to that year, $28 million was not made available to south Idaho from the total revenues of the Bonneville system, and in the meantime, Senator, I would also like to point out that the ratepayers in southern Idaho are getting the benefit of the Bonneville rates, which are substantially——

Senator JORDAN. At the expense of Idaho reclamation, the way it is working.

Mr. HOLUM. I think not.

Senator JORDAN. The way it is working.

Mr. HOLUM. I think not, Senator. Every Idaho project that I know of that has been considered by the administration and brought before the Congress since 1963 has been approved by the Congress, and financial assistance has been provided, and I do not think it will be difficult at all to find the $28 million, if necessary, for financial assistance for irrigation from the consolidated Bonneville revenues.

It will be a very small portion of those total revenues and I would doubt very much that the Congress would not make it available to assist irrigation in southern Idaho.

The CHAIRMAN. Right at this point, if you go back to the old system and you relate the power revenues on each project to the irrigation in that area, who ends up with most of the revenue available for irrigation purposes?

Mr. HOLUM. Well, southern Idaho has the $28 million that would have been available from the Palisades unit.

The CHAIRMAN. If you take all of the dams in the Columbia River system and you go back to the old system in which the power revenue

from that dam is available for irrigation in that area, who ends up paying most of the revenue for irrigation subsidy?

Mr. HOLUM. The State of Washington, Senator.

Senator JORDAN. And may I add another comment here, Mr. Chairman, if you would apply the formula that is applicable, either in the Missouri Basin or in the upper Colorado, then how would Idaho fare under either of those applications?

Mr. HOLUM. You would have substantially more than $28 million available to assist irrigation in southern Idaho.

Senator JORDAN. Indeed you would. Yet you say it should be noted that the adoption of the consolidated system payout by the Secretary of the Interior, in effect, accomplishes the same financial objective as those resulting from the other three basin accounts previously discussed. I insist it does not. It needs a lot of study before we can make such a statement as that.

The CHAIRMAN. Of course, it is up to the Congress to decide how these revenues should be made available, but the point is that the revenues under this consolidated system are available from the full system to be utilized in the legislative discretion of the Congress. Is that where we are right now as a practical matter?

Mr. HOLUM. That is absolutely correct, and while I do not have a comparable figure available at my fingertips, I think $28 million becomes a very small portion of the amount that is available to the Congress to use in providing irrigation assistance from the consolidated system of the Pacific Northwest.

Senator ALLOTT. Could I ask a question?

The CHAIRMAN. Yes, Senator Allott.

Senator ALLOTT. What sums, then, are available for southern Idaho, Mr. Secretary? If you say $28 million is just a small part of that which would be available, do you have any charts or projections which——

Mr. HOLUM. I cannot make that decision. It is a decision that the Congress will have to make, but the total revenues available from the Bonneville system for irrigation assistance, will be about $190 million annually after the presently authorized system is paid out in about 2035.

Senator ALLOTT. Now the chairman has repeatedly pointed out that if either the amount of water contributed, or the location of the power generated is used as a criterion, then Washington would be the primary beneficiary.

The CHAIRMAN. Based on the power generated?

Senator ALLOTT. Based on the power alone.

The CHAIRMAN. You see, water for Columbia River power comes from Montana, from northern Idaho, and a big chunk, of course, from Canada—under the storage system a tremendous amount. Our third powerhouse, plus the storage in Canada, plus Libby Dam, will make possible 3.6 million——

Senator ALLOTT. I do not want to misquote the chairman.

The CHAIRMAN. I said "generating."

Senator ALLOTT. I thought I also heard him make the statement that upon the basis of water contribution—you made this comment earlier—on the basis of where the water comes from then Washington would still get the major share. If this is not so, why, I am glad to get the record straightened up.

Senator JORDAN. The Secretary had said that he would supply a table showing the origin of water that flows through the powerplants downstream. I also carry a rough figure in my mind. Washington contributes 3 percent of the water at Grand Coulee and, of course, gets the power benefits that radiate out through the basin, but the assistance to reclamation is wholly confined to the State of Washington, and it is a substantial amount—around $400 or $500 million—and we do not have any quarrell with this if we get something like equal treatment. That is what I hope we can do.

The CHAIRMAN. I was just pointing out, of course, that we have built the Federal dams in our area. A great deal more power revenues would be available for irrigation if that should be the decision of Congress, if we had more Federal dams on the Snake River in Idaho. Of course, we lost the big battle, Hells Canyon.

I mention this fact because the problem is not just water. We need water, plus, of course, the dams in order to get the revenue. If we had the dams we would have greater revenues available for the irrigation subsidy. Again, that is a decision of Congress. If those dams had been built, if they were built and had been built on the Upper and Lower Columbia River, and on the Lower Snake the situation would be different. That is my point—that the problem is not just water. It is water in which you have maximized the power potential so that you have the wherewithal to make possible irrigation subsidies, if that is the decision and policy of the Congress.

Senator JORDAN. And that is why I am quite willing, Mr. Chairman, to join with you in introducing legislation that would levy an assessment against every kilowatt that is generated in the Columbia Basin—private, non-Federal, Federal alike—for the purpose of assisting irrigation.

The CHAIRMAN. Anything further, Senator Allott?

Senator ALLOTT. No; I have nothing further.

The CHAIRMAN. I wanted to ask this historical question. The initial concept of the irrigation program was to make water available directly for irrigation, is that not correct?

Mr. HOLUM. That is correct.

The CHAIRMAN. There was no power involved, as I recall, in the Roosevelt Dam in Arizona, which was the first one, was it not?

Mr. HOLUM. Not in the 1902 act.

The CHAIRMAN. That is right. Then the next one in Idaho, in 1909, which stored water and produced incidental power, was the Minidoka project?

Mr. HOLUM. That is correct.

The CHAIRMAN. At what point did we depart from the use of structures primarily to provide the means of assisting irrigation and move to diversion of power revenues from projects totally unrelated to making available water directly for irrigation?

Mr. HOLUM. It was the 1939 act, I believe.

Mr. LEE. There were two cases, Senator. The first one that I am aware of that provided financial assistance to an unrelated irrigation project was the Michaud Flats project constructed by the Bureau of Reclamation. It was authorized in 1954, and financial assistance was provided for that project from Palisades.

The CHAIRMAN. That is located where?

Mr. LEE. Southeastern Idaho. And then about the same time we had the legislation involving the Chief Joseph Dam in the State of Washington, that provided financial assistance to associated units in that vicinity, not directly connected therewith.

The CHAIRMAN. The Crooked River project in Oregon?

Mr. LEE. The Crooked River in Oregon is the next one. These are the three first ones that I recall.

The CHAIRMAN. In the Columbia River Federal power system, we have a series of dams, other than Grand Coulee, that were authorized primarily for the purposes of power production, navigation, and flood control. They were not authorized directly for irrigation purposes, is that not correct?

Mr. HOLUM. That is correct.

The CHAIRMAN. Well, there are some minor projects, I think, the Kennewick project uses a little bit of power; and you can identify those for the record.

Mr. HOLUM. We will be happy to do so.

(The information requested is as follows:)

Existing and authorized projects in the Columbia River Federal power system classified by the inclusion or exclusion of irrigation as a project function:

Projects including irrigation

Boise	Minidoka	Yakima
Chief Joseph [1]	Palisades	Teton Basin
Columbia Basin		

[1] Special legislation was enacted in 1952 which recognized that irrigation would be developed as a project function.

Projects not including irrigation

Albeni Falls	Lookout Point-Dexter	Little Goose
Bonneville	McNary	Lower Monumental
Cougar	The Dalles	Asotin
Detroit-Big Cliff	Dworshak	Libby
Hills Creek	Green Peter-Foster	Lost Creek
Hungry Horse	John Day	Lower Granite
Ice Harbor		

The CHAIRMAN. What I am trying to point out is that these projects that are making power available on the Columbia River and the Snake River—in the Columbia River system—were authorized initially for purposes other than irrigation. Grand Coulee and the others you will supply for the record are exceptions. Now proposals are being made for the use of the power revenues on a pool basis under the latest accounting system, to assist agriculture through irrigation. The question, of course, that will be before Congress—and it is before Congress every time we consider one of these projects—is to what extent we are going to use these power revenues to subsidize irrigation projects. Is this not correct?

Mr. HOLUM. That is a decision that the Congress makes every time it considers the authorization of a reclamation project, or an irrigation project.

The CHAIRMAN. Do you have further questions?

Senator JORDAN. I do not have any further questions, but I think a basic problem before the Congress is whether these projects were authorized for power production alone, or whether they were authorized for flood control and other purposes. Then we should

decide whether the power revenues can be used for reclamation, in a specific area or in other areas.

That is the question I think the Congress is going to have to resolve.

The CHAIRMAN. All I am saying is that the existing law provides that each of these projects have been authorized for particular purposes. Grand Coulee was authorized—well, it was not authorized. The money was made available initially out of a direct allocation of public works funds, as I recall it, funds of the Public Works Administration. The decisions were made by President Roosevelt without authorization. The Columbia Basin project as such, was not authorized until 1945, I believe. It started out initially as a reclamation project and this was truly a multiple-purpose project in support of irrigation, because the water from the Columbia River is pumped up onto banks and flows outward by gravity. It feeds the whole system.

This kind of project, I think, can be thoroughly understood by the average person in that it is directly, physically related to the making of water available for irrigation purposes. I think we take a long leap forward when we talk about Chief Joseph and we talk about all the other dams on the river, which were built by the Corps of Engineers, authorized as a project either relating to navigation, flood control, or power, but without reference to irrigation.

I mention this because it points up a need for a thorough review of this whole problem.

Senator JORDAN. Our only point of difference, Mr. Chairman, is whether the revenues from those strictly power and flood control projects, containing no reclamation whatever, should be enjoyed as the exclusive and sole property of the downstream States, or whether those headwater States that provide the greater part of the water should share in those benefits.

The CHAIRMAN. Or stated another way: Should the projects be modified to include irrigation? Or stated an additional way: To what extent should the States that have the power projects share in making available power revenues for the support of irrigation, as compared to the States who have not built those structures?

All of these things are——

Senator JORDAN. I thought they were Federal projects. I did not know the States built them. I am learning here for the first time, Mr. Chairman, that the States built them.

The CHAIRMAN. I thought the water was Federal. Senator Jordan, you are basing your contention on the fact that the water is Idaho's. So I was just merely following through on your reasoning.

Of course, they are neither. The water is Federal in the sense that the right to control it and the right to ——

Senator JORDAN. To build the dams?

The CHAIRMAN. Right, but the point is that in order to get the wherewithal to provide the irrigation subsidy, you have to have the Federal dams.

You are saying that we ought to have the private utility and the non-Federal utility dams make revenues available for irrigation subsidy. This is a rather novel idea and it is worth exploring. But I think it also involves a question fundamentally as to what we should do at the end of the 50-year licenses with these projects. Because

under existing law, they could become the property of the Federal Government if the Government chooses to exercise its rights.

Mr. HOLUM. There are some serious questions that have to be answered.

The CHAIRMAN. Am I correct in that assumption that under the Federal Waterpower Act of 1920, as amended, at the end of the period of the license the Federal Government could make these non-Federal facilities Federal property?

Senator JORDAN. Then in that event, all revenues could be made available and my amendment would not be necessary.

Mr. HOLUM. I think the Federal Government has to decide to take possession. There is no question but what the license——

The CHAIRMAN. The committee can take that up at a future meeting.

The committee will stand in recess subject to call of the Chair.

Thank you, gentlemen. We appreciate having your testimony.

(Whereupon, at 12 noon the hearing recessed, subject to call by the Chair.)

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