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**ELECTRIC RATES CHARGED BY THE
CENTRAL VALLEY PROJECT**

GOVERNMENT

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HEARING
BEFORE THE
SUBCOMMITTEE ON
OVERSIGHT AND INVESTIGATIONS
OF THE
COMMITTEE ON
INTERSTATE AND FOREIGN COMMERCE
HOUSE OF REPRESENTATIVES
NINETY-FIFTH CONGRESS
SECOND SESSION

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ELECTRIC RATES CHARGED BY THE CENTRAL VALLEY PROJECT

FRIDAY, APRIL 28, 1978

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS,
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Sacramento, Calif.

The subcommittee met, pursuant to notice, at 10 a.m., in hearing room No. 4, U.S. Federal Building, 650 Capitol Street, Sacramento, Calif., Hon. John E. Moss, chairman, presiding.

Mr. Moss. The subcommittee will be in order.

Today's hearing will focus on electric rates charged by the Central Valley Project. An interim increase of approximately 95 percent for all CVP customers has been announced. It will become effective on May 25 of this year. A final rate will be announced sometime next year by the Department of Energy, which has assumed responsibility for the Federal Government's power marketing functions from the Department of Interior.

The procedures, including the opportunity for public and customer comment, whereunder the final rate will be set have been published in the Federal Register and will be explained in detail by Department of Energy witnesses later today.

Initially authorized in 1935, the CVP is a large multipurpose water resources development project consisting of 19 dams and related water conveyance systems, 9 powerplants having a combined generating capacity in excess of 1480 megawatts, and various transmission facilities. Their primary purpose is to provide irrigation water to the Sacramento and San Joaquin Valleys. The project also provides municipal and industrial water, hydroelectric power generation, flood control, and fish and wildlife enhancement.

CVP electricity is generated by hydroelectric facilities, which, because of their ability to be put into service quickly and their mechanical reliability, are ideally suited for meeting peak customer demand. Most hydro facilities are not suited for so-called baseload generation, which means that the plant is operating continuously at a high-capacity factor. Most hydro facilities do not have the riverflow or the reservoir size to serve as baseload plants, and this type of generation is usually provided by fossil fuel or nuclear-fired plants.

Thus, a hydro system like CVP is in a paradoxical situation. Its peaking power, which is based on water stored in its reservoirs, is perhaps the most valuable of all types of electricity. But the hydroplants cannot provide baseload generation in very dry years or during certain months. Hydro by itself is an orphan. But when brought into

a family that includes fossil-fired, baseload generation that can be used to "firm" or fill the gaps when hydro might not be available, hydro can become the prodigal son. It is not an oversimplification to say that the history of the CVP has been dominated by this paradox.

The Department of the Interior recognized the need to firm up the hydropower produced by the initial CVP facilities, and in 1940 proposed the construction of a steamplant in the vicinity of Antioch. The greatly increased value, and therefore the potential danger, of a Government-owned steamplant that would firm up CVP's hydro resources was also recognized by the Pacific Gas & Electric Co., who strongly opposed its construction. The value to the Government of its own firming capacity was cogently summarized at the time by the Federal Power Commission:

Thus, it is evident that by making the CVP dependent upon the PG and E system for standby plants to firm up the Shasta (CVP) power output, the applicant would cut off possible competition, utilize its own steam generating plants, and purchase power from the Shasta plant at a much lower figure than otherwise * * *. Without the Antioch steam plant the government will be unable to maintain a minimum supply of firm power and in its bargaining will be at the mercy of a single purchaser. (2 FPC 392, June 2, 1941)

Despite the recommendation of the Bureau of the Budget, the Secretary of Interior, and the Chairman of the Federal Power Commission that the Antioch steamplant be authorized, Congress failed to approve the authorization. The Government never did build its own firming plant and, in September 1943, P.G. & E. signed a contract to purchase power from the CVP's Shasta facility.

This was followed in 1951 by a contract between the Bureau of Reclamation and P.G. & E. under which P.G. & E. provided firming power to the CVP. In exchange, and as ratified in subsequent agreements, P.G. & E. plans for and meets the area demand for electricity, including the scheduling of CVP plants and planning for the daily transmission of power and the operation of generating facilities.

Under the 1951 contracts, CVP sales of surplus energy to P.G. & E. were recorded in an energy bank account from which the CVP could repurchase energy from P.G. & E. at a fixed rate. In order to obtain access to Northwest power resources and to provide for load growth for CVP preference customers, the Congress approved construction of the Pacific Northwest-Southwest Intertie in 1964.

These arrangements necessitated a new contract between the Bureau of Reclamation and P.G. & E., which was finalized in 1967. Under this pact, two more bank accounts were created, a second energy account and a capacity account, whose withdrawal costs increased as did P.G. & E.'s cost of generation.

The Intertie agreement provided that the CVP could import up to 400 megawatts of additional capacity from the Northwest. This enabled the CVP to increase its preference customer support load to 1,050 megawatts for the period 1980-2004.

In December 1967, Interior entered into a contract to purchase the 400 megawatts of power from a steamplant that was to be constructed at Centralia, in the State of Washington.

Energy from the Centralia facility proved to be much more expensive than anticipated. Rising coal prices and the need to replace and upgrade expensive environmental control equipment sent costs well above the levels set in the initial 1967 contract. Despite intimations of

these rising costs, the Bureau did not renegotiate its contract with P.G. & E. in 1971 to include a cost escalation clause. According to the General Accounting Office, the Government's losses on this contract with P.G. & E. were some \$73 million between 1971 and 1976.

In 1976, it again became possible to renegotiate the rate paid by P.G. & E. for the power it received from the Centralia coal-fired plant. This new rate was and is of acute importance to the preference customers—various municipal utility districts, electric co-ops and government purchasers of CVP power. If P.G. & E. pays less than cost for Centralia power, those losses will presumably be borne by the preference customers.

After a lengthy and much criticized decisionmaking process, then Under Secretary of Interior Frizzell announced a new rate for sales to P.G. & E. on December 14, 1976. This new "split-rate" separately charged P.G. & E. for the energy and capacity it received from Centralia.

Energy is priced at a level which assumes a 60-percent load factor. This price was set at the Government's cost for energy and related capacity. Additional Centralia capacity available to P.G. & E. is priced at the CVP project rate, a rate substantially below the capacity costs associated with the Centralia facility.

This pricing formula was chosen over the "passthrough" or full-cost method and the full cost plus savings rate, to make up for previous losses, recommended to Mr. Frizzell by all but one of the responsible officials of the Department of the Interior.

As recently as January of this year, the Office of Audit and Investigations of the Department of the Interior concluded that "the rate to P.G. & E. * * * was not adequate to cover that portion of the Centralia power sold to P.G. & E." The history of this decision and its impact on the current rate will be probed today.

In addition the subcommittee will be inquiring into the other premises and methodology which undergird the proposed rate.

Today's witnesses will be as follows:

First, Mr. D. Kent Frizzell, former Under Secretary of the Interior, who will be followed by two panels.

The first panel will include representatives from the Sacramento Municipal Utility District, the Northern California Power Agency, the Pacific Gas & Electric Co., and the Naval Facilities Engineering Command, who will speak for several Department of Defense CVP customers.

The second panel will consist of Department of Energy personnel including Mr. Dan Ogden, Director, Office of Power Administration Coordination, the office that oversees the CVP and the other Federal power marketing agencies.

At this time the Chair would like to ask Mr. Frizzell to come forward.

Mr. Frizzell, I would like to administer the oath to you.

Mr. FRIZZELL. I would like you to do so.

Mr. Moss. Do you solemnly swear that the testimony you are about to give this subcommittee will be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. FRIZZELL. I do.

Mr. Moss. Will you identify yourself, giving your name, address, and occupation to the reporter for the record?

**TESTIMONY OF D. KENT FRIZZELL, FORMER UNDER SECRETARY,
DEPARTMENT OF THE INTERIOR**

Mr. FRIZZELL. I just see a package with my name on it which I have not seen before. I would like to look at it and check whether it is necessary for me to go through it before I testify.

Mr. Moss. You may take your time to go through the package.

I believe, Mr. Frizzell, those documents have previously been supplied to you by committee counsel. Am I correct?

Mr. FRIZZELL. Which of the microphones, or both, do you want me to address, Mr. Chairman?

Mr. Moss. Whichever one carries best.

Mr. FRIZZELL. Yes. Before I answer that observation or question of the chairman's I will identify myself.

I am Kent Frizzell. My address is Route 5, Box 82, Claremore, Okla. Anything else, Mr. Chairman?

Mr. Moss. That is quite adequate.

Mr. FRIZZELL. In answer to your statement that this and other material had been previously furnished me by subcommittee staff, that is accurate. In fact, I have it here. It is more voluminous than I found at my desk this morning. Though your staff member, Mr. Sims, and I talked initially on March 10, 1978, this material arrived at the University of Tulsa, College of Law, last Monday afternoon. I saw it for the first time Tuesday of this week. Therefore, I have not had an opportunity because of other duties to go through it or to review it.

Mr. Moss. Mr. Greene?

Mr. GREENE. Thank you, Mr. Chairman.

Initially, Mr. Chairman, I would like to formally incorporate the documents before Mr. Frizzell into the record to be called forward at the time necessary. They are lettered A through AA.

Mr. Moss. The Chair asks unanimous consent that all documents scheduled to be used in the hearings today be admitted into the hearing record at the appropriate point.

Is there objection?

Hearing none, such will be the order of the committee.

Mr. GREENE. Thank you, Mr. Chairman.

Initially, Mr. Frizzell, I would like to discuss with you some of the concepts we will be talking about later in the day.

Generally, is my understanding correct that capacity costs pursuant to your decision with respect to Centralia Power generally relate to fixed costs while energy costs broadly relate to variable costs, that would be fuel costs? Is that correct?

Mr. FRIZZELL. I should preface my answer to you. As you know, this matter first came before me early in 1976, when I was Under Secretary of the Department of the Interior. That was a little over 2 years ago.

Frankly, I have not had occasion to review it since it was finally concluded in about November 1976, almost a year and a half ago.

I did not receive these materials in time to review them, and, very frankly, my memory is somewhat hazy. Plus, let me add this important ingredient. All during that period of time when I was more intimately involved with this, approximately April 1976 through November 1976, I had available to me a staff in the Under Secretary's office of approximately 30 persons, and the primary person on my staff in-

volved was a Deputy Under Secretary by the name of Mr. William Lyons.

He, nor the rest of that staff, nor any of the papers relating thereto on deposit with the Executive Secretary within the Department of the Interior, are now available to me. Nor was I cognizant of a report that the GAO did, or, an in-house audit and investigation within DOI until the last few days.

Therefore, I have not sufficient memory to give you unqualified answers in each instance today.

Mr. GREENE. Mr. Frizzell, if I might suggest to you—capacity costs and energy costs are very basic concepts, both with respect to this particular rate and with respect to rates generally.

Are you stating to this subcommittee you do not understand those two concepts? Do I understand correctly?

Mr. FRIZZELL. I don't believe that is my answer. If you understood it that way, you are mistaken, Mr. Greene.

Mr. MOSS. The Chair will not permit any argument. You can answer yes or no and we will expedite the hearing by following this procedure.

Mr. FRIZZELL. Would you repeat the question?

Mr. GREENE. Let me give you an example. If we were discussing an automobile—

Mr. FRIZZELL. Mr. Greene, I think I can answer your question without further amplification.

Mr. GREENE. Very good.

Mr. FRIZZELL. With the caveat I just stated, I believe I understand and comprehend the difference between "capacity" and "energy."

Mr. GREENE. Am I correct in stating that generally capacity costs relate to fixed costs, plant costs—and energy costs broadly relate to variable costs, generally the cost of fuel? Is that correct?

Mr. FRIZZELL. That is my recollection.

Mr. GREENE. Very well. To use an example which might be more understandable to the various members of the public with us today, we will deal with an automobile. Would I be correct in saying that generally the cost of the automobile itself would be considered the capacity or fixed cost and the variable costs or energy costs would be broadly the cost of gasoline? Would that be generally a correct analogy?

Mr. FRIZZELL. Your analogy is generally correct.

Mr. GREENE. In document A before you in the packet, Mr. Frizzell—

Mr. FRIZZELL. Very well.

[Document A referred to follows:]

DOCUMENT A

METHODOLOGY FOR CALCULATING CAPACITY AND ENERGY CHARGES FOR NORTHWEST POWER SOLD TO PACIFIC GAS & ELECTRIC CO.

The annual cost of capacity will be calculated as the sum of:

- a. 100 percent of annual fixed cost of the Centralia facilities.
- b. 65 percent of the annual O&M cost of the Centralia facilities.
- c. 10 percent of the annual fuel cost for the Centralia facilities.
- d. That part of wheeling and capacity reserve annual cost paid to BPA proportional to the capacity component of the total capacity and energy cost of Centralia.

The monthly capacity charge per kilowatt will be the total annual cost for Northwest capacity divided by 12 and then by 382,000 kilowatts, the Northwest capacity delivered to the CVP load center at Tracy.

The annual cost of energy, up to 7,050 kWh/kW/year, will be calculated as the sum of:

- a. 35 percent of the annual O&M cost of the Centralia facilities.
- b. 90 percent of the annual fuel cost of the Centralia facilities.
- c. That part of the wheeling and capacity reserve annual cost paid to BPA proportional to the energy component of the total capacity and energy cost of Centralia.

d. Estimated annual energy support purchased from the Northwest.

The energy charge per kilowatt-hour will be the total energy cost divided by the Northwest energy delivered to the CVP load center at Tracy.

Not later than October 1 of each year, Reclamation will prepare and furnish to PG&E estimated energy and capacity.

Mr. GREENE. That document is an exhibit from your final determination with respect to the Centralia rate and defines capacity costs and energy costs. As I go through that you will note at the top of the page A through D define capacity costs. In general they are 100 percent of the annual fixed cost of the plant, a substantial portion of the operation and maintenance costs, and various wheeling and capacity reserve costs.

In addition, toward the bottom of the page, also A through D, are the energy costs which are a portion of the O. & M. costs plus 90 percent of the annual fuel costs. Again we are basically discussing at this point fixed costs versus costs for fuel. Is that correct?

Mr. FRIZZELL. I assume so if you say so, Mr. Greene. I have not had time to review this. I don't know. I can't fast-read this in a moment's notice.

Mr. MOSS. All right. Take the time to read it. We do not want the testimony of Mr. Greene but we want your testimony.

Mr. FRIZZELL. I want my testimony to be accurate.

Mr. MOSS. Just take the time to read the document, Mr. Frizzell.

Mr. FRIZZELL. All right.

Mr. Greene, I am not familiar with this document. You saw it was part of the departmental files and records that I would have reviewed at the time?

Mr. GREENE. Yes, sir. This document is part of your final determination with respect to the Centralia rate. This is how capacity and energy costs are defined under your decision.

Mr. FRIZZELL. The question?

Mr. GREENE. Am I correct in my understanding that this document indicates that the capacity costs relate to fixed costs, that would be plant costs, and that energy costs relate to energy costs, essentially the cost of coal? Is that correct?

Mr. FRIZZELL. It would appear to be so.

Mr. GREENE. Thank you. Now let's talk briefly about these same two concepts from the perspective of a utility. My understanding is that electricity demand on both a daily basis and a seasonal basis is marked by various peaks and valleys; that is, during the normal working hours there is essentially a flat, more or less constant, demand for energy. During the evening hours as people turn on the lights there is a peak. Am I correct?

Mr. FRIZZELL. That is my understanding.

Mr. GREENE. So as a consequence a utility, when it is providing services to its customers, generally uses two types of plants—one is a base-load plant, which runs at very high percentage of its total capacity almost all the time to meet constant demand, and additionally there

would be plants to meet peak loads which are turned on generally just for the peaks. As a consequence they run at a capacity factor oftentimes 10 to 20 percent of the total capacity of the plant. Is that correct?

Mr. FRIZZELL. I am not an electrical engineer. I don't know whether or not your percentages are representative, Mr. Greene. Generally I would agree with your statement, but I am not an expert in this area and don't pretend to be nor have I ever.

Mr. GREENE. Your answer is to the best of your knowledge yes; is that correct?

Mr. FRIZZELL. To the best of my limited knowledge.

Mr. GREENE. Let me turn now, Mr. Frizzell, to a very quick recap of the history prior to your taking office. In 1967 the Central Valley Project and Pacific Gas and Electric Company entered into a contract made necessary by the construction of new intertie, the Northwest-Southwest Intertie. Is that correct?

Mr. FRIZZELL. That is my recollection.

Mr. GREENE. My understanding is that the premise, the rationale, for the Intertie was a presumption that inexpensive hydroelectric energy would be available from the Northwest and brought down on the intertie to be made available to customers, both P.G. & E. customers and preference customers, here in California. Is that correct?

Mr. FRIZZELL. I don't know as I would characterize it as "inexpensive" as you did.

Mr. GREENE. But it was to bring down Northwest power?

Mr. FRIZZELL. Yes.

Mr. GREENE. During this period it became difficult to find a source of hydroelectric power, so in order to supply electricity to be flowed through the intertie the Government and the various corporations involved sought and obtained a contract for power from the coal-fired powerplant then being built in Centralia, Wash. Is that correct?

Mr. FRIZZELL. To the best of my recollection, yes.

Mr. GREENE. For a variety of reasons, as I understand it, both rising fuel costs and problems with various environmental control systems at that plant, costs for the energy from that facility rose rather dramatically. Is that correct?

Mr. FRIZZELL. That is my understanding.

Mr. GREENE. Rather than increasing the price to P.G. & E. in 1971, which was possible, the Government let that go. Is that correct?

Mr. FRIZZELL. That is not correct. That is not my understanding.

Mr. GREENE. Let me direct your attention——

Mr. Moss. What did they do?

Mr. FRIZZELL. What they did do is contained in the same report that your staff furnished to me. It is a report from the United States General Accounting Office, from the Comptroller General, I believe. On page 4 it recites what they did do. It is entitled "Rate Adjustment Not Made April 1, 1971."

"The Bureau's regional officials told us that they did not——"

Mr. Moss. That is precisely what counsel just said.

Mr. FRIZZELL. I beg to differ. That is not what he said. The rationale is here in one paragraph.

Mr. Moss. I am prepared to go back to the transcript to point out that that is what counsel said. The adjustment was not made in 1971, was it?

Mr. FRIZZELL. Oh, but he characterized why it was not made.

Mr. Moss. Substantively he said it was not made in 1971, did he not?

Mr. FRIZZELL. I would have to have the reporter read back his statement.

Mr. Moss. Take my word for it.

Mr. FRIZZELL. Before I answer I would prefer to hear what he said.

Mr. Moss. Let it stand at this point as the response.

Mr. FRIZZELL. You don't want to censor my remarks, Mr. Chairman?

Mr. Moss. That is up to me and not up to you.

Mr. FRIZZELL. I am sure it is as chairman, but I hope you would not want to do that.

Mr. Moss. That is what happened. The rate was not adjusted in 1971. Is that correct?

Mr. FRIZZELL. For good reason——

Mr. Moss. Well, we have all the reasons up here. We will deal with that later.

Mr. FRIZZELL. I don't know that that is a correct answer, either, Mr. Chairman.

Mr. Moss. Mr. Frizzell, you will conduct yourself here in an appropriate fashion.

Mr. FRIZZELL. I will defend what I think is right and proper.

Mr. Moss. You have come here to supply us with answers to our questions. The record is ours to manage and to dispose of.

Mr. FRIZZELL. But I suppose, and I presume that my answers can be mine alone and not dictated to me.

Mr. Moss. Mr. Frizzell, I will not argue with you. I want succinct answers, and you can give them. If you do not know you say you do not know.

Mr. FRIZZELL. I do know the answer to this but I am not being allowed to give it.

Mr. Moss. I don't need you to tell me what is in this report. I have read it and so has my staff.

Mr. FRIZZELL. It is not apparent from the statement he made that he had read it.

Mr. Moss. That is your judgment. I don't care to cater to your judgment at all.

Mr. FRIZZELL. Why am I called and subpoenaed as a witness if you don't want my judgment?

Mr. Moss. To answer specific questions put to you.

Mr. FRIZZELL. I am trying to, Mr. Chairman.

Mr. Moss. You are going beyond that. I do not intend to, as I say, engage in any further discussion on that point.

Proceed with the questions, please.

Mr. GREENE. Let me turn your attention to Document B which is in your packet, Mr. Frizzell, which is article 32 of the contract.

[Document referred to follows:]

DOCUMENT B

REVIEW OF CHARGES

32. Rates and charges under this contract shall be fair and equitable and shall, except those provided in Articles 22(b) (1) and 22(c) (2) (i), together with service chargers, be jointly reviewed, and adjusted as appropriate, on April 1, 1971, and every five years thereafter; *Provided*, That rates and charges for energy sold to the United States from Energy Account No. 2 also shall be adjusted monthly to reflect the changes in costs of energy generation from the thermal generating units referred to in Article 22(c) (1) (ii). Such review shall take into account substantial savings accruing to either party and applicable costs of construction and production, including changes therein and appropriate service charges, during the preceding five years. If the parties are unable to agree on a change of any rate or charge, the matter shall be submitted to the Federal Power Commission for final decision.

Mr. FRIZZELL. Would you wait a moment? Document B?

Mr. GREENE. Yes; it should be marked in the upper righthand corner.

Mr. FRIZZELL. I have it.

Mr. GREENE. If you turn your attention to Article 32 you will note that it defines when changes in the contract can be made, and that changes in that rate can be made only at certain points, so-called "windows" in the contract. One of those windows was April 1, 1971.

Mr. FRIZZELL. If I may read that paragraph before I answer.

Mr. GREENE. Please do. Paragraph 32 begins at the bottom of the page.

Mr. FRIZZELL. Yes, sir, I have read it now.

Mr. GREENE. So my understading is correct, that on April 1, 1971 a change could have been made. Is that correct?

Mr. FRIZZELL. No. By terms of the contract, or whatever this is, a change could have been made but the practical facts of the moment would not have allowed it; no.

Mr. GREENE. A change could have been made. For whatever reason a change was not made. Is that correct?

Mr. FRIZZELL. That is an accurate statement.

Mr. GREENE. Pursuant to this contract, the next window would have been April 1, 1976. Is that correct?

Mr. FRIZZELL. That is correct.

Mr. GREENE. Prior to April 1, 1976 it became clear, did it not, that the costs of the power coming from Centralia were far in excess of the sale price; is that correct? That is, Mr. Frizzell, the Government was selling power below its cost?

Mr. FRIZZELL. To both P.G. & E. and CVP and to preference customers.

Mr. GREENE. Let's check it. If you will turn to Documents C, D, and E in your packet.

[Documents C, D, and E, referred to, follow:]

DOCUMENT C

U.S. DEPARTMENT OF THE INTERIOR,
BUREAU OF RECLAMATION,
Washington, D.C., August 30, 1976.

MEMORANDUM

To: Deputy Under Secretary.

Through: Assistant Secretary, Land and Water Resources.

From: Acting Commissioner of Reclamation.

Subject: Decision Process for Pacific Gas and Electric Company Rate Determination—Central Valley Project.

As requested in the Executive Secretary's memorandum of August 25, 1976, on the above subject, we have reviewed the options for the Pacific Gas and Electric Company (PG&E) rate determination.

We recommend adoption of the "passthrough" rate for Northwest power sold to PG&E.

The contract standard for the rate as set forth in article 32 under Contract No. 14-06-200-2948A between PG&E and the Bureau of Reclamation is that it "... shall be fair and equitable . . . (taking) into account substantial savings accruing to either party and applicable costs of construction and production, including changes therein . . . during the preceding five years."

Referring to that standard and the data in the August 25, 1976, memorandum to the Under Secretary from the Deputy Assistant Secretary—Land and Water Resources and related information, we offer the following reasons for adoption of the passthrough rate:

1. The passthrough rate is based on the cost of Northwest capacity and energy which is the most commonly used method for setting rates in the electric utility industry.

2. PG&E accrued substantial savings (about \$60 million or more) during the preceding 5 years, during which time the actual cost of Northwest capacity and energy was not reflected in the rates paid by PG&E.

3. Use of the passthrough rate for the period 1976-1981 will result in costs to PG&E comparable with the costs of alternative power. Estimates by the preference customers and the Bureau of Reclamation show the cost of alternative power to be higher. Even the lowest estimate (that by PG&E) shows the cost of alternative power to be less than 10 percent lower (\$73,529,000 for alternative power compared to \$80,665,000 for Northwest power at the passthrough rate). Considering the savings to PG&E during the previous period, even PG&E's figures show a net saving over the 1972-1981 period, and use of the passthrough rate can be considered to meet the test of being "fair and equitable."

The proposed rate for Northwest power delivered to PG&E, as announced on February 20, 1976, was based on the passthrough rate. Although a substantial amount of data has been collected and several meetings have been held with affected parties since then, we do not believe the additional information warrants a departure from the previous conclusion. A decision at this time will enable us to proceed with the remaining steps required in connection with the adoption of a revised rate for project power delivered to the preference customers. We, therefore, urge a prompt decision in favor of the passthrough rate.

E. F. SULLIVAN.

DOCUMENT D

SPIEGEL & McDIARMID,
Washington, D.C., May 26, 1976.

Re: Central Valley project: USBR Rates to PG&E for Pacific Northwest Power.

The Honorable D. KENT FRIZZELL,
Under Secretary of the Interior,
Department of the Interior,
Washington, D.C.

DEAR MR. FRIZZELL: Enclosed please find a copy of my letter of May 24, 1976, correcting minor typographical errors on pages 2, 4, 5, 6, 7 and 8, and adding copies list on page 10.

Respectfully submitted,

GEORGE SPIEGEL,

Attorney for NCPA and the critics of Biggs, Gridley, Palo Alto, Redding,
Roseville and Santa Clara, California, and the Plumas-Sierra Rural
Electric Cooperative.

Enclosure.

SPIEGEL & MCDIARMID,
Washington, D.C., May 24, 1976.

Re: Central Valley Project: USBR Rates to PG&E for Pacific Northwest Power
The Honorable D. KENT FRIZZELL,
Under Secretary of the Interior,
Department of the Interior,
Washington, D.C.

DEAR MR. FRIZZELL: This letter outlines the principal consideration for the meeting scheduled on May 25, 1976 for representatives of the preference customers and Pacific Gas and Electric Company to discuss the proposed increase in rates, effective April 1, 1976, for Pacific Northwest power sold to PG&E by the Bureau of Reclamation through the Government's Central Valley Project under the terms of the PG&E-CVP interconnection agreement (Contract No. 2948A).¹

1. PACIFIC NORTHWEST POWER

a. The Bureau has a 10-year contract for the purchase of 427 Mw of unit power from the two Centralia, Washington, coal-fired generators at the cost to the northwest sponsors. It is delivered over the 500 kv Pacific Northwest-Southwest Intertie to PG&E as 400 Mw at the Oregon-California border, and is treated as 382 Mw delivered to CVP at the Tracy station. It is backed up as firm power both (i) by Bonneville Power Administration's northwest resources, and (ii) by the full 1483 Mw of 9VP hydro generation including interruption of CVP pumping loads (Contract 2948A: Article 18(b)). Deliveries to PG&E's system commenced in January 1972 and have been running at 80% annual capacity factor and are expected to so continue through December 31, 1981.

b. The Northwest power is combined with CVP hydro power to serve CVP's pumping and preference customer loads, and the balance is sold to PG&E. The amount of firm Northwest capacity considered sold to PG&E is computed by formula² and the amount of such energy is that which is actually available after serving the pumping the preference loads. Over the 10-year period, as planned, the amount of such energy sold to PG&E is a diminishing quantity as pumping and preference loads grow.

c. During the period January 1972 through March 31, 1976, the sale to PG&E was made at 51.4% capacity factor, i.e., on average for the period, PG&E was delivered energy at the billing demand level 51.4% of the total hours in the year (i.e., 4503 kwh per kw year, or 375 kwh per kw month). For the period April 1, 1976 through March 31, 1981, the Bureau estimates that Northwest capacity will be sold to PG&E at capacity factors ranging from approximately 30% to 11.5%.

2. LOSS ON SALE TO PG&E THROUGH MARCH 31, 1976

a. The Bureau and R. W. Beck and Associates³ both agree that in the first 4½ years (January 1, 1972 through March 31, 1976) there has been a substantial loss to the Government from the sales of Northwest power to PG&E. The loss as

¹ United States Department of the Interior, Bureau of Reclamation, Central Valley Project, California, Contract with Pacific Gas and Electric Company for the Sale, Interchange and Transmission of Electric Capacity and Energy, Contract No. 10-06-200-2948A dated July 31, 1967.

² See table below:

Formula	1974	1975	1976
Megawatt project dependable capacity ("PDC")-----	925	880	851
Plus megawatt Northwest power-----	382	382	382
Minus megawatt preference customer load-----	925	925	925
Total megawatt purchased by P.G. & E.-----	382	337	308

The reductions in PDC in 1975 and 1976 were set forth in a Bureau-PG&E letter of January 22, 1975 and are contested by NCPA. In addition, they were never tendered for filing to the FPC and therefore have never been legally put into effect under PG&E's FPC rate schedule. R. W. Beck has concluded that PDC is at least 1036 Mw. On this basis (1036 + 382 - 925 = 493) PG&E would have been required to pay for 382 Mw of Northwest power and 111 Mw of CVP project power during 1975.

³ R. W. Beck and Associates (hereinafter R. W. Beck) is a national consulting firm retained by Sacramento Municipal Utility District, CVP's largest preference customer and Northern California Power Agency and its preference customer members: the Cities of Biggs, Gridley, Palo Alto, Redding, Roseville and Santa Clara, California, and the Plumas-Sierra Rural Electric Cooperative. Sacramento and NCPA each represent approximately one-third of the preference customer load.

g. In short, a cost of service rate for Northwest power is a bargain to PG&E, and the Secretary should so determine on the basis of the full cost of service as developed by R. W. Beck.

4. REDETERMINATION OF PROJECT DEPENDABLE CAPACITY

a. The 1483 mw of CVP hydro capacity were discounted to 925 mw of Project Dependable Capacity ("PDC") during the period 1972 through 1974. In a letter of January 22, 1975, between the Bureau and PG&E, it was stated that the PDC would be further reduced upon a redetermination taking into account the Government's approximately 200 mw of San Luis pumped storage as follows:

Year	Project dependable capacity (MW)	Customer level	P.G. & E. resulting capacity purchase (MW)
1975.....	880	925	337
1976.....	851	925	308
1977.....	849	925	306
1978.....	844	956	270
1979.....	828	987	223

This was done by following the arithmetic formulas of previous redeterminations based upon the excessive minimum capacity factors requirements set forth in the contract.

b. The lack of confidence in that method is recognized in a savings clause, as follows:

"These amounts may be revised as of January 1, 1975, as appropriate, upon review of methods and criteria as provided in Article 11(b) (3) of the Contract."

This clause provides for the revision of the criteria for PDC redetermination and would enable the Bureau to free itself from the unrealistic minimum capacity factors which appear in the contract as a result, in our view, of misrepresentation by PG&E in negotiating Contract 2948A and its predecessors (see footnote on page 7 above). A redetermination by R. W. Beck, based upon realistic criteria shows that PDC should be at least 1036 mw. Such a revision, would increase the capacity for which PG&E must pay in 1975 by 156 mw per month, and in 1976 by approximately 180 mw. This would produce additional revenues of well over 1 million dollars per year.

c. The Secretary should now direct the Bureau to proceed with the redetermination contemplated in the letter of January 22, 1975. We believe that nothing has been done to initiate the review agreed to, and substantial Government monetary interests are being neglected. In view of all the circumstances, particularly the load knowledge R. W. Beck has developed in this matter, the preference customers should be permitted to participate in such review: after all, what PG&E does not pay, the Bureau expects the preference customers to pay.

Respectfully submitted,

GEORGE SPIEGEL,

Attorney for NCPA and the Critics of Biggs, Gridley, Palo Alto, Reading, Roseville and Santa Clara, California, and the Plumas-Sierra Rural Electric Cooperative.

DOCUMENT E

LOSSES TO CVP ON NORTHWEST POWER FOR PERIOD JAN. 1, 1972 TO MAR. 31, 1976¹

	P.G. & E.	Preference customers	Total
Cost of purchases of Northwest power:			
Capacity ¹	\$63, 284, 488	\$3, 923, 072	
Energy ¹	42, 845, 455	22, 761, 481	
Total.....	106, 129, 943	25, 784, 553	\$131, 914, 496
Revenues from sales of Northwest power:			
Capacity.....	13, 334, 412	536, 974	
Energy.....	19, 619, 887	10, 242, 637	
Total.....	32, 954, 299	10, 779, 611	43, 733, 910
Loss on sales:			
Capacity.....	49, 950, 076	2, 486, 098	
Energy.....	23, 225, 568	12, 518, 844	
Total.....	73, 175, 644	15, 004, 942	88, 180, 586

¹ The rate for electric power is made up of 2 components, capacity and energy. In accounting for the cost of Northwest power, the capacity component generally consists of the annual fixed, operating, and maintenance costs of the generating plant that produces the power. The energy component generally consists of the annual fuel cost of the generating plant.

Mr. FRIZZELL. I am sorry, Mr. Greene, I don't appear to have D and E. I have C.

Mr. GREENE. D should be a document which has at the top "Law Offices, Spiegel & McDiarmid."

Mr. FRIZZELL. I have that copy. What about E?

Mr. GREENE. E should be a portion of the General Accounting Office report.

Mr. FRIZZELL. Now, I have it.

Mr. GREENE. In Document C you will note the Bureau of Reclamation shows that loss to have been \$80 million, shown in the last paragraph, first page.

Mr. FRIZZELL. Mr. Greene, that is what appears on exhibit C. The more accurate figure as later determined by the GAO report was set at \$3 million.

Mr. GREENE. The documents are before you. Turn to document D, Northern California Power Agency. In that document you will find that they estimate that the number was approximately \$74 million.

Mr. FRIZZELL. What page would that be on?

Mr. Moss. Page 6.

Mr. GREENE. It is on page 6, paragraph C. You will note at the end of that paragraph it states, "The loss was \$74 million, 1972 through 1976." Am I correct in my reading of that portion?

Mr. FRIZZELL. Yes.

Mr. GREENE. Let's turn to document D.

Mr. FRIZZELL. That is the document we just had, D and E.

Mr. GREENE. Document E, which is perhaps the most accurate estimate we have, from the General Accounting Office, states, does it not, that the loss on sales to P.G. & E. was \$73,175,644? Is that a correct statement of what is in that document?

Mr. FRIZZELL. And the loss to the preference customers was \$15,004,942. Yes; that is correct.

Mr. GREENE. Very good.

I am correct, am I not, there was an attempt by the Department of the Interior during this 1972-76 period to increase rates to the preference customers, but in fact that failed because of procedural error in the *Northern California Power Agency v. Morton* case?

Mr. FRIZZELL. There was and is a case pending in the U.S. District Court for the District of Columbia before Judge Gesell, which involved those parties and that issue; yes. The Department had tried to increase the rates in that action.

Mr. GREENE. And because of procedural error they were not able to cover that loss to preference customers?

Mr. FRIZZELL. I think it was because they went through the procedures again that I was involved in 1976.

Mr. GREENE. In September of 19——

Mr. FRIZZELL. Understand, Mr. Greene, I wasn't at the Department in 1972.

Mr. GREENE. This is just background for the record.

Mr. FRIZZELL. I was not there when the review occurred.

Mr. GREENE. Prior to 1975 a new rate was proposed to preference customers. In the so-called redbook, the brochure sent out by the Bureau, they discussed the rate increase and also indicated that the rate increase would be impacted by any determinations made with respect to Centralia Power to P.G. & E. Generally that is correct, is it not?

Mr. FRIZZELL. My recollection is that that is correct.

Mr. GREENE. Mr. Chairman, counsel would suspend for a moment. If there are questions with respect to this background which we have gone through very quickly——

Mr. MOSS. Mr. Santini, do you have questions at this point?

Mr. SANTINI. I have no questions.

Mr. MOSS. Proceed.

Mr. GREENE. In November of 1975 you were sworn in as Under Secretary of Interior. Is that correct?

Mr. FRIZZELL. That is correct.

Mr. GREENE. Turning to Document F in your packet, please.

Mr. MOSS. That is an organization chart.

[Document F, referred to, follows:]

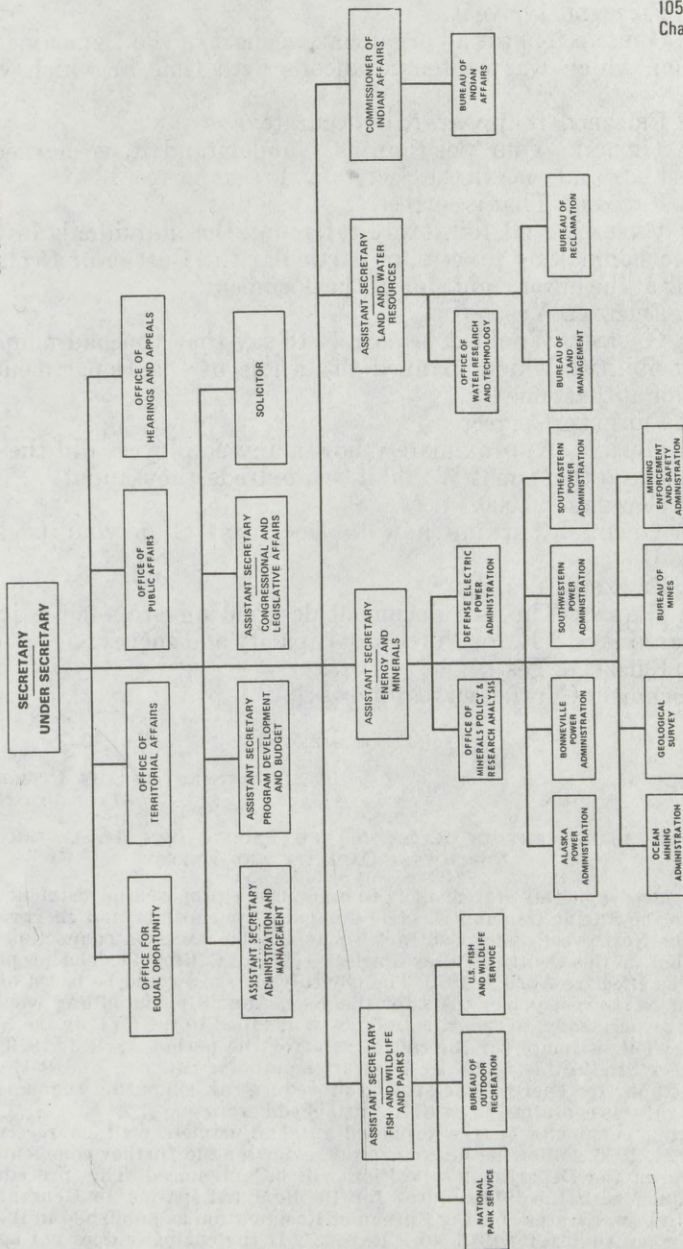
DOCUMENT F

Department of the Interior

ORGANIZATION

17

105 DM 2
Chart



Mr. FRIZZELL. I have it.

Mr. GREENE. That is an organization chart of the Department of the Interior which was contemporaneous with time in which you took office.

Mr. FRIZZELL. It appears to be accurate.

Mr. GREENE. Your position, as I understand it, is marked in the highest box underneath the Secretary. Is that correct?

Mr. FRIZZELL. That is correct.

Mr. GREENE. And for future reference, the individuals involved in the decisionmaking process, in particular the Bureau of Reclamation, appear at the lower right side of the document.

Mr. FRIZZELL. Yes.

Mr. GREENE. Would it be correct to say that you had management responsibilities which spanned the whole of the Department of the Interior at that time?

Mr. FRIZZELL. Correct.

Mr. GREENE. Approximately how many employees did the Department have at that time? Would it be hundreds, thousands?

Mr. FRIZZELL. 60,000.

Mr. GREENE. Turning now to Document G in your packet, Mr. Frizzell.

Mr. FRIZZELL. Yes, sir.

Mr. GREENE. This is a document designating proposed adjustments in rates to P.G. & E. for Northwest capacity and energy.

Mr. FRIZZELL. Yes.

[Document G, referred to, follows:]

DOCUMENT G

DEPARTMENT OF THE INTERIOR,
February 20, 1976.

PROPOSED ADJUSTMENT IN RATES TO THE PACIFIC GAS & ELECTRIC CO. FOR NORTHWEST CAPACITY AND ENERGY

The purpose of this statement is to announce a proposed adjustment in power rates to the Pacific Gas and Electric Company for capacity and energy imported from the Northwest under Contract No. 14-06-200-2948A in connection with the operation of the Central Valley Project (CVP), California. The proposed rate would be effective April 1, 1976. The monthly charges would be based on an estimate of Northwest power costs for the year. Annually, the billing would be adjusted, as necessary, to reflect actual costs, as billed to the CVP by the Northwest entities. The estimate for the initial rate for the period April 1, 1976, through December 31, 1976, is \$4.28 per kilowatt month for capacity and 9.03 mills per kilowatthour for energy. The specific procedure for computing the capacity and energy rates is contained in exhibit A attached hereto.

Written comments on the proposed rate adjustment will be received until March 24, 1976. Following departmental review of the further comments, a final decision on the Department's position will be announced. This procedure is in accordance with the "Procedures for Public Participation in General Adjustments in Power Rates" for the Bureau of Reclamation as published in the Federal Register on August 15, 1975, 40 F.R. 34431. If the company does not agree with the Department's final position, the dispute will be submitted to the Federal Power Commission (FPC) for determination as provided in article 32 of the contract. The remaining portion of this statement gives an explanation of the background and the principal factors leading to the proposed decision.

The power resources of the CVP consist of project hydroelectric facilities which are currently supplemented by the import of 400 MW of capacity and associated energy from the Northwest, most of which is coal-fired, steam-generated power

from the Centralia Powerplant located south of Seattle, Washington. Under a complex contractual arrangement between the Bureau of Reclamation (Reclamation) and the Pacific Gas and Electric Company (PG&E), the company controls, for scheduling purposes, the CVP hydroelectric powerplants, within limits of water availability, plus the 400 MW of capacity and associated energy imported from the Northwest. The company then supplies its customers and the CVP customers connected to its system from the combination of its own and the CVP resources. In addition, the company provides reserves that enable the project to supply to the year 2004 the project pumping load and a CVP customer load level that is currently set at 925 MW and is projected to rise to 1,050 MW.

Arrangements in the contract provide that capacity and energy greater than currently needed to meet project pumping and customer load requirements will be sold to PG&E and be accounted for in a "banking" arrangement which governs the price CVP pays when it buys capacity and energy from PG&E as needed in future years to meet load requirements. The contract provides a method for allocating the Northwest capacity and energy between PG&E and the CVP customers separately from the hydroelectric capacity and energy.

Initially, the contract, which was executed in July 1967, provided for a rate for Northwest power consisting of a capacity charge of 75¢ per kW per month and energy block rates of 4, 3, and 2 mills. This was the same rate that was then being charged for power and energy from the project facilities. Northwest imports began in 1971 with the purchase of power and energy from the British Columbia Hydro & Power Authority. Regular imports from the Centralia Powerplant began in 1972, pursuant to contracts entered into in late 1967 and early 1968.

Article 32 of the contract with PG&E provides:

"Rates and charges under this contract shall be fair and equitable and shall . . . be jointly reviewed, and adjusted as appropriate, on April 1, 1971, and every five years thereafter; . . . Such review shall take into account substantial savings accruing to either party and applicable costs of construction and production, . . . during the preceding five years. If the parties are unable to agree on a change of any rate or charge, the matter shall be submitted to the Federal Power Commission for final decision."

The rate for Northwest power was not changed in April 1971, the previous opportunity for review and adjustment, because the Centralia plant was not then in operation. While estimates of costs at that time were somewhat higher than had been estimated in 1967-1968 when the Centralia contracts were made, the increase was not considered unusual. When the first unit of the Centralia plant was placed in service in the fall of 1971, its output was restricted to meet air pollution control requirements, which resulted in increased per unit power costs. Additional precipitators were later purchased and installed which increased the plant investment. The precipitator costs were about \$42 million, about one-fifth of the plant cost. After the plant began operation, it was found that the cost of coal mining was greater than estimated, and the cost of coal is now more than double the initial estimates of its costs. Because of air pollution control regulations, the plant today operates only to a capacity of 1,276 MW. This reduction further increases the cost which CVP has to bear. Principally because of the high cost of Centralia power, CVP began falling behind in its repayment obligation under Federal law. Following a rate adjustment process in 1973, a first step increase in the rate for project power went into effect on April 1, 1974, consisting of a capacity charge of \$1.15 per kilowatt per month and an energy charge of 3 mills per kilowatthour. However, the rate to PG&E for Centralia power remained at 75¢ and 4, 3, and 2 mills, as provided in the contract.

The CVP rate adjustment proceedings were initiated when tentative rates were announced on September 4, 1975, in the Federal Register, 40 F.R. 40867. Two alternative tentative rate increases were announced for sale of wholesale firm power: one alternative rate increase of about 44 percent assumed that PG&E would pay the full cost of Northwest capacity and energy; the other alternative rate increase of about 66 percent assumed that PG&E would pay the CVP project rate (thermal and hydromix) for all power.

It had not been contemplated when the rate adjustment procedure began in September 1975 expressly to subject the negotiated rates between CVP and the company to the general adjustment procedures. However, in October, a number of the customers of the project urged that we do so. By our letter of October 22, 1975, we pointed out that the rate to PG&E for Northwest power is different from the other rates in that the final decision cannot be made unilaterally by the

Secretary of the Interior but instead is made by the FPC unless PG&E agrees to the Secretary's final position. Nonetheless, in view of the fact that this rate has a major financial impact on the project rate, we agreed that we would not take a final position on the Northwest rates in the joint review until: (1) all interested parties had been afforded an opportunity to submit written comments during the consultation and comment period, (2) we announced a proposed position on the rates, and (3) interested parties had been afforded the opportunity to submit written comments on the proposed position. We also reserved the right to deal with this rate issue separately from the decisionmaking process for the project rates applicable to all customers.

The period for submitting comments on the Northwest rates to PG&E was extended until January 19, 1976. Comments were filed by the Sacramento Municipal Utility District (SMUD); Messrs. Spiegel, Davidson and McDonough, on behalf of the Northern California Power Agency (NCPA) and others; R. W. Beck and Associates, on behalf of NCPA and others; and PG&E.

The California Public Utilities Commission recently requested a delay in making this announcement of the proposed rate in order to give the commission time to evaluate the effect of the rates on customers served by PG&E under the regulatory oversight of the commission. Any comments the commission wishes to make during the 30-day comment period will be considered.

Three major issues were raised by the comments; these involve: (1) the method of allocating the capacity sold PG&E between the quantity charged under the rate for Northwest power and the quantity charged under the project rate, (2) the factors to be considered in determining the rates for Northwest capacity and energy, and (3) whether, and for how long, the company should pay for the difference between the amount it paid CVP for Northwest power from January 1972 through March 1976 and the cost to CVP for Northwest power during this period. While each of these issues can and will be discussed separately, they are interrelated, and all three of them have a bearing on determining the proposed rate.

PG&E contends that the method of accounting used by Reclamation for allocating Northwest power to PG&E is not proper because Reclamation proposes to change PG&E for capacity and energy at a capacity factor which is less than the capacity factor associated with the imported energy from the Northwest. On the other hand, the comments from others on the subject endorse the allocation method of accounting used by Reclamation.

Article 22(a) (3) of the PG&E contract expressly provides that the load of CVP customers "shall be deemed" to be first furnished from CVP generation. Northwest power is then used to meet CVP customer load to the extent necessary, and the remaining Northwest power is sold to PG&E. The basic issue is whether: (1) capacity and energy are to be allocated separately, as between CVP and Northwest power, or (2) Northwest capacity should be allocated proportionately to Northwest energy. Because CVP hydroelectric generation is generally at a capacity factor lower than the CVP customer load factors, and Northwest power is generally at a capacity factor higher than CVP customer load factors, the Reclamation method generally has the effect of allocating Northwest power to PG&E at a lower than normal load factor; i.e., the allocation of energy generally is relatively small compared to the allocation of capacity.

The method of accounting used by Reclamation for allocating Northwest capacity is based on the interpretation of the contract prepared by the Assistant Solicitor—Power in his memorandum to the Commissioner of Reclamation of November 12, 1974. That method was questioned by PG&E but was reaffirmed by the Deputy Solicitor on May 5, 1975. In reviewing this matter again, we note that this is only one element of a complex contractual arrangement between Reclamation and PG&E. We believe that when the contract was negotiated, the parties intended that Centralia power be allocated to PG&E as provided in the contract in accordance with the interpretation given to us by the Solicitor's Office. We conclude that this method of allocation is appropriate and should be the basis for the payments to be made by PG&E for Centralia power. However, we recognize that, as pointed out in the Assistant Solicitor's memorandum, the test for the Centralia rate as set forth in article 32 of the contract is that it "... shall be fair and equitable and ... shall take into account substantial savings accruing to either party and applicable costs of construction and production, ... during the preceding five years."

In regard to the rates to be charged for Northwest capacity and energy, comments from R. W. Beck and Associates contend that Reclamation's calculations

omit an annual cost of \$1,340,000 which is paid to the California Pool companies for 400 MW of transmission capacity from the Oregon border to the Tracy Substation. This cost is incurred under a 40-year contract, No. 14-07-200-2947A. After that agreement was made in 1967, the transmission was used for over 4 years to import surplus Northwest hydroenergy prior to the time Centralia power became available. That service will be used for 10 years for Centralia power imports and will be used following expiration of the Centralia contract in 1981 for import of available Northwest energy. Because of its long-term benefit to the project as a whole, it seems inappropriate to incorporate the charge as a part of the cost of Centralia power to PG&E.

In addition, R. W. Beck and Associates contends that the allocation of Centralia coal costs between capacity and energy used by Reclamation is not appropriate. R. W. Beck and Associates asserts that a substantially larger part of the coal cost should be allocated to the cost of Centralia capacity rather than the 10 percent used by Reclamation. The Centralia coal purchase contract provides the coal supplier with a minimum monthly payment to compensate for the cost of the mining operation. R. W. Beck and Associates contends that this part of the coal cost should be a part of the fixed cost for the Centralia plant and, thus, used in computing the capacity rate. Operation of the Centralia plant with an annual capacity factor of more than 50 percent will use more coal than provided by this minimum payment to the coal supplier. Since the CVP is committed to PG&E to import Northwest power at 80 percent capacity factor, the operation of the Centralia plant during the period through 1981, when the project's interest ceases, will be at a high capacity factor, and so the cost of coal purchases will substantially exceed the minimum payment during this period. Therefore, it seems appropriate that Reclamation follow the guidelines of FPC-35 and allocate only 10 percent of the cost of coal to the Centralia capacity charge.

The suggestion that the future rate to PG&E be increased sufficiently to cover the difference between the past cost of Northwest power to CVP during the period January 1972 through March 1976, and the amount paid by CVP during that period, has also been given consideration. The fact that the rates were not raised in April 1971 is in keeping with article 32 of the contract, which stresses that rate revisions shall be based on savings and costs experienced during the preceding 5 years. However, this is but one feature of a complicated contract which provides mutual benefits and detriments to both parties. In this instance, PG&E has obtained substantial savings during the 1972-1976 period. In connection with other parts of the contract, notably Energy Account No. 1 under the banking arrangements, the United States and the preference customers will obtain substantial savings in the future. All things considered, it does not seem appropriate to demand a retroactive adjustment.

The comments received regarding the proposed rates demonstrate there is a wide divergence of opinion as to what is fair and equitable. The interests of the preference customers, PG&E, and the United States all need to be considered. The proposed rate is more than four times that now paid by PG&E. If the recommendations of the preference agencies were followed, the increase to PG&E would be even greater. On the other hand, PG&E objects vigorously to our interpretation as to the proper method for allocating Northwest power, and, if the PG&E view prevailed, the revenues would be substantially lower. Consideration should be given to the substantial savings that have accrued to PG&E during the past 4 years.

After considering all of the factors discussed in the statement, it is concluded that the proposed rates are appropriate. Of course, any additional comments that may be received from PG&E, the California Public Utilities Commission, preference customers, or others on or before March 24, 1976, will be considered fully before a final decision is announced.

JACK HORTON,
Assistant Secretary of the Interior.

EXHIBIT A

METHODOLOGY FOR CALCULATING CAPACITY AND ENERGY CHARGES FOR NORTHWEST POWER SOLD TO PACIFIC GAS & ELECTRIC CO.

- The annual cost of capacity will be calculated as the sum of:
- a. 100 percent of annual fixed cost of the Centralia facilities
 - b. 65 percent of the annual O&M cost of the Centralia facilities

- c. 10 percent of the annual fuel cost for the Centralia facilities
- d. That part of wheeling and capacity reserve annual cost paid to BPA proportional to the capacity component of the total capacity and energy cost of Centralia.

The monthly capacity charge per kilowatt will be the total annual cost for Centralia capacity divided by 12 and then by 382,000 kilowatts, the Centralia capacity delivered to the CVP load center at Tracy.

The annual cost of energy will be calculated as the sum of:

- a. 35 percent of the annual O&M cost of the Centralia facilities
- b. 90 percent of the annual fuel cost of the Centralia facilities
- c. That part of the wheeling and capacity reserve annual cost paid to BPA proportional to the energy component of the total capacity and energy cost of Centralia

- d. Estimated annual energy support purchased from the Northwest

The energy charge per kilowatthour will be the total energy cost divided by the Centralia energy delivered to the CVP load center at Tracy.

Not later than October 1 of each year, Reclamation will prepare and furnish to PG&E estimated energy and capacity charges for Northwest power determined on this basis. These charges will apply to sales to PG&E during the following year. Annually, during January, the billing to PG&E for the previous year will be adjusted as necessary based on actual billing of Northwest power cost to CVP.

Mr. GREENE. On the penultimate page you will note it is signed by Mr. Horton and dated February 20, 1976. Is that correct?

Mr. FRIZZELL. Yes.

Mr. GREENE. As I understand it, this was the proposal of the Bureau of Reclamation with respect to rates for P.G. & E. for sales to P.G. & E. and Centralia Power. Is that correct?

Mr. FRIZZELL. As presented by the Assistant Secretary for Land and Water who oversees the Bureau of Reclamation.

Mr. GREENE. Turning now to pages 3 and 4, the final paragraph on page 3 and the first few paragraphs on page 4—

Mr. FRIZZELL. Yes.

Mr. GREENE. Mr. Horton indicates in this official document that substantial public comment was had upon this matter.

Mr. FRIZZELL. Are you reading or paraphrasing?

Mr. GREENE. Paraphrasing. Please review it, Mr. Frizzell.

Mr. FRIZZELL. All right.

Mr. GREENE. Have you completed reading it?

Mr. FRIZZELL. How far do you want me to go?

Mr. GREENE. Just the first two to three paragraphs.

Mr. FRIZZELL. I have.

Mr. GREENE. Am I correct in stating that Mr. Horton indicates substantial public comment had been had upon the issue, in fact, the Northern California Power Agency, P.G. & E. and various others all had the opportunity to comment upon this matter?

Mr. FRIZZELL. That is what he states and represents, yes, sir.

Mr. GREENE. Is it your understanding that that is correct?

Mr. FRIZZELL. I have to believe it. He is an honorable gentleman to the best of my knowledge.

All I can personally testify to is what happened after I got into it.

Mr. GREENE. Very good.

Mr. FRIZZELL. I wasn't into it as of this time when these public hearings and requests for public comment were made.

Mr. GREENE. Turning to pages 5 through 6 let me briefly recap what is there.

The Assistant Secretary notes in effect that this was a compromise proposal in that he did not incorporate various recommendations made by the preference customers, Northern California Power Agency, those being basically that \$1.3 million in charges for certain transmission capacity should have been included, a fuller allocation of coal costs to capacity; and that losses to the government in the previous five-year period should have been included. Is that generally your understanding?

Mr. FRIZZELL. That is generally my recollection.

Mr. GREENE. Let me return you to page 1 of the document finally. Five lines from the top of the first paragraph it states, "This shall be effective April 1."

Mr. FRIZZELL. Yes.

Mr. GREENE. The proposed rates will be effective April 1, 1976.

Mr. FRIZZELL. That is what the document states.

Mr. GREENE. In essence, then, the Bureau is proposing that the pass-through rate shall be effective April 1, 1976. Is that correct?

Mr. FRIZZELL. That is a proper characterization, yes, sir.

Mr. GREENE. Turning to document H in your packet.

[Document H referred to follows:]

DOCUMENT H

OFFICE OF
UNDER SECRETARY

UNITED STATES
DEPARTMENT OF THE INTERIOR
WASHINGTON

Comer 100-1
Bureau file
app. 100-1

April 1, 1976

Memorandum

To : Assistant Secretary--Land and Water Resources
From : Under Secretary
Subject: Proposed Adjustments in Rates to the Pacific Gas and Electric Co.
for Northwest Capacity and Energy (Central Valley Project)

This memorandum reflects decisions and relevant information discussed on March 30, 1976, at a meeting with Department officials and representatives from PG&E and provides follow-up instructions.

The proposed rate was to become effective on April 1, 1976. Representatives from PG&E by telegram dated March 30, 1976, requested extending this date to work out an agreement. The reasons given were:

1. The present proposal is unfair and inequitable.
2. There is mutual advantage in taking the time now to attempt to resolve differences rather than turn it over to FPC with attendant long delay.
3. Extension does not increase the risk of later legal action.

Discussion followed relative to the types of options, the likelihood of reaching agreement, whether or not the basic contract would have to be altered, and the timing involved.

The following options were identified:

1. Announce by 4/1/76 the proposed formula under the existing contract.
2. Agree to extend the date of announcement and try to reach an arrangement acceptable to both PG&E and the Department.

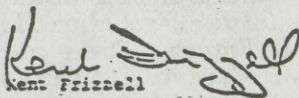
The following decisions were made:

1. Adopt option 2, above. (Options presented must include proposed arrangements under the existing contract; however, contract amendment is not precluded as a possible option.)

preceded

2. Any rate changes would be retroactive as of April 1, 1976.
3. That a diligent effort be made by all parties to reach a fair alternative that was in-between the existing positions.
APR--
4. The parties would have twenty days to provide alternatives and allow ten days for a decision.

The Bureau of Reclamation, under the direction of the Assistant Secretary-- Land and Water Resources, is hereby instructed to provide me an Options Paper, mutually agreeable to PRR and the Bureau of Reclamation, by April 30, 1976. As background for my consideration as well as for future reference relative PRR discussion, FPC hearings, or court action, there should be appended to the options a concise description of how the present and proposed rates for PRR and the preference customers are determined, and a rationale that could serve as the basis for selection of each option.


Kent Frizzell

cc: Deputy Under Secretary
Executive Secretary

Mr. GREENE. In document H there is a memo on Department of Interior stationery, April 1, 1976, indicating it is from the Under Secretary, presumably you, to the Assistant Secretary of Land and Water Resources. Is that correct?

Mr. FRIZZELL. That is correct. It bears my signature.

Mr. GREENE. The first paragraph states, "This memorandum reflects decisions and relative information discussed on March 30, 1976 at a meeting with department officials and representatives from P.G. & E." Is that correct?

Mr. FRIZZELL. Correct.

Mr. GREENE. Toward the bottom of the page, in a portion which is marked "The following options were identified" there are numbered two options, one and two. Is that correct?

Mr. FRIZZELL. Yes.

Mr. GREENE. Basically No. 1 is to go forward with the proposal of the Bureau. No. 2 is to agree to extend the time on the rate and enter into further negotiations. Is that correct?

Mr. FRIZZELL. That is correct.

Mr. GREENE. Further down the page there is a paragraph which begins "The following decisions were made."

At point one it states, "Adopt option two," which is to extend time and agree to further negotiations. Is that correct?

Mr. FRIZZELL. That is correct.

Mr. GREENE. Turning to the next page, Mr. Frizzell, at three, "A diligent effort be made by all parties to reach a fair alternative that was 'in between existing positions.'" Is that correct?

Mr. FRIZZELL. That is correct.

Mr. GREENE. Then further down, the full paragraph, you instruct the Bureau to "provide me an options paper mutually agreeable to P.G. & E." Is that correct?

Mr. FRIZZELL. My copy is not the best. Let me try to decipher it further.

Can you read me the language?

Mr. GREENE. It is the third line. The language to which I referred to is "mutually agreeable to P.G. & E."

Mr. FRIZZELL. "And the Bureau of Reclamation by April 20, 1976." That is a correct reading.

Mr. GREENE. While suggesting that the Bureau be involved in these negotiations, as I understand it, you explicitly rejected option one, the passthrough rate at the time; is that correct?

Mr. FRIZZELL. That is not correct.

Mr. GREENE. This document indicates option one is to be rejected?

Mr. FRIZZELL. That is your interpretation. It is not mine.

Mr. GREENE. Am I not correct, turning back to page 1, at one it states, "Announce the proposed formula."?

Then two is agreed to extend the time and try to reach an arrangement.

Following that it states, "Adopt option two." Is that a correct reading?

Mr. FRIZZELL. What it does is just what it states it does. It does not adopt any, and particularly the proposed—

Mr. Moss. We will not argue the point. We will interpret it on the face of the language when we write the report of the committee.

Mr. FRIZZELL. But you will not force me to interpret it the way you do, will you, Mr. Chairman?

Mr. MOSS. I will not answer any questions put to me by you, Mr. Frizzell.

You are on the witness stand. I am not.

Mr. FRIZZELL. What do you want answered?

Mr. MOSS. I am not going to engage in any further discussion with you, Mr. Frizzell.

Mr. FRIZZELL. I am talking to Mr. Greene. What do you want answered, Mr. Greene?

Mr. MOSS. Wait until he gets ready to ask you a question. He will do it.

Mr. GREENE. Let me turn to the second page again and see whether I have the document right.

Again in the same paragraph which we discussed, the language with respect to mutually agreeable to P.G. & E., you request "background." That is what I understand to be in the last paragraph.

Mr. FRIZZELL. Last paragraph, last sentence?

Mr. GREENE. Yes. You say, "As background for my consideration." I refer to that sentence.

Mr. FRIZZELL. Let me read it. "As background for my consideration as well as for future reference relative to P.G. & E. discussion, FPC hearings or court action, there should be appended to the options"—my copy is so bad—"a concise description of how the"—something—"and proposed rates."

Mr. GREENE. "Present."

Mr. FRIZZELL. "Are determined, and a rationale that would serve as a basis for selection of each option." It is signed by me.

I don't rule out any option there that I can read.

Mr. GREENE. Let me ask my question. So in effect you have, according to your document, made a choice between option 1 and option 2. Now you are asking for—

Mr. FRIZZELL. I don't agree with that statement, you understand.

Mr. MOSS. You don't have to. We are not asking for your agreement, Mr. Frizzell. That is our conclusion. We don't require that you agree with us.

Mr. FRIZZELL. All right.

Mr. GREENE. In any case, Mr. Frizzell, at that point you are asking for background on what appears to be the basic issues involved, how the present and proposed rates for P.G. & E. and preference customers are determined. Is that correct?

Mr. FRIZZELL. Yes; that is correct.

Mr. GREENE. Isn't that putting the cart before the horse? Shouldn't you have asked for that background before you make the decision?

Mr. FRIZZELL. I can't answer you because the chairman has instructed he doesn't want my opinion.

Mr. MOSS. I have not asked you to do anything except respond to the questions put to you.

Mr. FRIZZELL. He is asking for an opinion, Mr. Chairman.

Mr. MOSS. I don't give a damn whether he is. If he is asking for an opinion, you give him an opinion. Stop trying to be cute.

Mr. FRIZZELL. Would you repeat the question?

Mr. GREENE. Was it normally your policy to make a judgment and then ask for background information?

Mr. FRIZZELL. It was not then nor is it now; no, I don't beat my wife.

Mr. GREENE. Very good. In any case, Mr. Frizzell, did you not issue by press release an extension of time on March 31, 1976, on the rate?

Mr. FRIZZELL. I don't know about the press release. I did extend the time for further inquiry.

Mr. GREENE. Mr. Chairman, I would be willing to suspend at this point.

Mr. MOSS. Proceed.

Mr. GREENE. According to the GAO report, of which you have a copy, pursuant to your memo the Bureau examined a series of options with respect to a split rate. According to the GAO at pages 9 and 10 they examined options which ranged from 80 percent load factors to 60 to 40, and they determined to raise the 60-percent load factor split rate with the preference customers. Is that correct?

Mr. FRIZZELL. I think that is a fair representation of what appears on 9 and 10; yes—in part.

Mr. GREENE. Again according to the GAO study, page 10, that option was rejected by the preference customers—

Mr. FRIZZELL. You say that option was rejected? Which one?

Mr. GREENE. Sixty percent split rate. It appears on page 10 of the document.

Mr. FRIZZELL. That is true. The preference customers at meetings held on April 26 and May 14 of 1976 were against that 60-percent split rate alternative.

Mr. GREENE. Again according to GAO their rationale was that P.G. & E. paid less than cost between 1971 and 1976; two, P.G. & E. had experienced rate savings compared to the costs it would have experienced if they had to acquire that power through construction of their own plant. Is that correct?

Mr. FRIZZELL. That is correct, as had the preference customers in both instances.

Mr. GREENE. On May 25, at a meeting at your office, as I understand it, there was a question of alternate costs which became acute and would later become one of the principal issues. Is that correct?

Mr. FRIZZELL. What date are you talking about now?

Mr. GREENE. I understand there was a May 25 meeting at your office.

Mr. FRIZZELL. 1976?

Mr. GREENE. Yes.

Mr. FRIZZELL. I don't recall the exact date. If your records show that, I accept it.

Mr. GREENE. If you will turn to a P.G. & E. letter, document I, in your packet.

Mr. FRIZZELL. Yes, sir.

[Document I, referred to, follows:]

DOCUMENT I

PACIFIC GAS AND ELECTRIC COMPANY

PG&E + 77 BEALE STREET • SAN FRANCISCO, CALIFORNIA 94106 • (415) 781-4211

BARTON W. SHACKELFORD
VICE PRESIDENT
PLANNING AND RESEARCH

June 25, 1976

The Honorable Thomas S. Kleppe
Secretary of the Interior
United States Department of the Interior
Washington, D. C. 20240

Attention: The Honorable Kent Frizzell
Under Secretary of the Interior

Dear Mr. Kleppe:

This is to provide you with Pacific Gas and Electric Company's further comments regarding the rate the Company is to pay for surplus Centralia power which the Bureau of Reclamation imports to supplement the Central Valley Project. Under the Department's published procedures, all interested parties were to submit comments on the Centralia issue on or before March 24, 1976. The Company complied with these procedures by submitting its comments on March 22, 1976. The Company wishes to emphasize that the March 22, 1976, comments still represent the Company's views in the Centralia matter. However, in view of the fact that you have extended the time for announcing your final decision on Centralia until the end of June, and the fact that the Federal Agencies, the Northern California Power Agency (NCPA) and the Sacramento Municipal Utility District (SMUD) have submitted additional written comments subsequent to the March 24, 1976, deadline 1/, the Company wishes to supplement its March 22, 1976, comments.

The SMUD, NCPA and Federal Agency letters have raised certain questions regarding the fairness of the three alternate Centralia rates you are now considering. 2/ We wish to make it

1/ By letters dated May 5, 1976, and May 21, 1976, David S. Kaplan submitted comments on behalf of SMUD. NCPA's further comments were submitted by George Spiegel's letter of May 24, 1976. Similarly, the Federal Agencies' additional comments were submitted by Gerhard C. Depken on May 25, 1976.

2/ All three rate alternatives presently being considered assume a method of accounting for Centralia capacity and energy described in Assistant Solicitor R. K. Pelz's memorandum of November 12, 1974, (Pelz Accounting Method). The Company is strongly opposed to the Pelz Accounting Method and believes that the contract requires an accounting of capacity in proportion to energy. However, for the purpose of these comments

clear that we continue to believe that the Project Rate is the only rate of the three alternatives you are considering that satisfies the "fair and equitable" test of Article 32 of the contract. However, the Company wishes to take this opportunity to clarify the relative fairness of all three rate alternatives which we believe have been improperly evaluated in the SMUD-NCPA analyses.

I. The Contract Requires that the Centralia Rate be Fair and Equitable Considering Capacity and Energy Together.

In his letter of May 5, 1976, Mr. Kaplan argues that under accepted rate-making principles, a supplier of electric power is entitled to recover its cost. This is accomplished, according to Mr. Kaplan, by the supplier allocating its fixed costs to capacity and its variable costs to energy. In applying this principle to the Centralia situation, Mr. Kaplan concludes that the Bureau should recover all its costs for Centralia capacity sold to PGandE while disregarding the fact that PGandE will be purchasing little, or none, of the Centralia energy generated by the Centralia capacity the Company is purchasing. This result clearly fails to meet the "fair and equitable" standard of the contract.

Assuming, arguendo, that Mr. Kaplan is correct in his hypothesis that a supplier of electric power is "entitled" to recover its cost, Mr. Kaplan's conclusion that substantially all of this cost should be placed on PGandE does not follow. The Bureau, as the supplier of electric power generated by the Central Valley Project, is entitled to recover its full cost. This cost is recovered not just from PGandE, but from the preference customers as well. Indeed, the Company's interpretation of the contract would permit the Bureau to recover the full cost of Centralia power by charging each customer a full cost rate for the Centralia power each is using. However, under the Pelz Accounting Method, PGandE must pay not only for the Centralia capacity used to generate the energy the Company purchases, but also the Company must pay for the Centralia capacity used to generate the energy purchased by the CVP preference customers. This results in an unfair shifting of the capacity cost burden from the customers of the CVP preference agencies to PGandE's customers. The inequity of this is clearly demonstrated by the fact that the Pass Through Rate results in a unit charge to PGandE of 39 mills per kilowatthour while the other customers only pay 14 mills per kilowatthour.

the Pelz Accounting Method will be assumed to apply. The three alternative rates you are now considering are commonly referred to as follows:

1. Pass Through Rate - PGandE pays the Bureau's full cost of Centralia for capacity the Company purchases.
2. Project Rate - PGandE pays the same rate as the CVP preference customers.
3. Split Rate - PGandE pays the full Centralia cost for capacity supported by energy at 60% capacity factor and the Project Rate for the remaining capacity the Company purchases.

The Company suggests that in light of the above, the "fair and equitable" way for the Bureau to recover its Centralia costs is to charge PGandE at a reduced capacity rate which reflects the value of the Centralia power PGandE purchases. This would permit the Bureau to fully recover its cost while charging each of its customers a fair rate for the Centralia power each uses.

In determining a rate that is fair, it is common practice to consider capacity and energy costs together, notwithstanding the fact that capacity and energy might later be separated for billing purposes. When deciding whether to construct a power plant or whether to purchase power from a particular resource, the costs associated with the plant capacity must be considered together with the cost of producing energy from that plant. Thus, if a plant has a high capacity cost it will be constructed (or its power output purchased) only if there is a corresponding benefit of sufficient amounts of low cost energy to offset the high capacity costs.

In his May 5, 1976, letter, Mr. Kaplan challenges the use of the unit cost method of evaluating Centralia power. However, SMUD uses this unit cost method of analysis (i.e., considering capacity and energy costs together) in analyzing the value of its own resources and in the pricing of its own power for sale. ^{3/}

Notwithstanding this fact, Mr. Kaplan argues that it is improper to do so in evaluating Centralia because it would, in effect, "... reject the conclusion reached by Assistant Solicitor Pelz on November 12, 1974, that the contract provides for the allocation of capacity separately from energy." This contention has been expressly rejected by Mr. Pelz.

In his November 12, 1974, memorandum, Mr. Pelz recognized that under his method of allocating Centralia power the Company would purchase substantial quantities of capacity while purchasing little energy as an offsetting benefit. Therefore,

^{3/} In a September 4, 1974, study prepared by R. W. Beck and Associates (Beck) for SMUD, the unit costs (capacity and energy together) for four alternative power resources were compared to determine which was the most economic alternative. For example, the Beck study showed that while the nuclear alternative had a much higher annual fixed (i.e., capacity) cost than the geothermal alternative (i.e., \$34,907,000 versus \$19,753,000) the nuclear had a lower unit cost per kilowatthour (i.e., 1.257 cents vs. 2.084 cents) because of the relatively large amounts of inexpensive energy the nuclear plant was capable of producing. Also, under a sales contract with PGandE, SMUD sells high cost base load capacity to PGandE; however, the Company is "entitled" to purchase a concomitant amount of low cost energy.

Mr. Pelz indicated that the rate for Centralia capacity must be reduced to a level that would satisfy the "fair and equitable" requirement of the contract. Mr. Pelz stated that the use of his "... method of allocation is one of the factors that may be taken into consideration in ... determining what rates for Centralia capacity and energy would be 'fair and equitable'."

During a meeting with the preference customers on April 26, 1976, Mr. Pelz explained that what he meant by his November 12, 1974, statement is that the contract requires that the rate for Centralia be fair and equitable taking into consideration the fact that capacity and energy are allocated separately. ^{4/} The Company agrees with Mr. Pelz that the rate for the Centralia power PGandE purchases should be set at a level that is "fair and equitable" considering the fact that there is little or no energy available for purchase associated with the Centralia capacity PGandE purchases.

II. PGandE's Alternate Cost is Not The Proper Measure of a Fair and Equitable Rate for Centralia.

In SMUD's letter of May 21, 1976, and in NCPA's letter of May 24, 1976, it is argued that the Pass Through Rate announced on February 20, 1976, is fair and equitable in view of what PGandE's alternate cost of producing energy would be in the absence of Centralia. Both NCPA and SMUD make certain assumptions which appear to result in a significant overestimation of PGandE's alternate cost. Notwithstanding these errors, it is worthwhile to point out that a "fair and equitable" rate for Centralia should not be determined by evaluating PGandE's alternate costs (i.e., what the market will bear). The proper way is to set rates which permit the Bureau to recover its costs of Centralia (as suggested by Mr. Kaplan in his May 5 letter) by fairly allocating these costs to its customers.

However, in order to clarify the record, PGandE wishes to demonstrate that even if the costs of alternate resources are considered, the benefits to the CVP's preference customers far outweigh those received by PGandE.

In his May 21, 1976, letter, Mr. Kaplan suggests that the Pass Through Rate is fair in view of PGandE's alternate cost of producing power from a combustion turbine. Mr. Spiegel reaches the same conclusion in his May 24, 1976, letter by considering PGandE's alternate cost to be either a combustion turbine or an oil-fired base-load power plant for the period ending

^{4/} The allocation of capacity and energy on an independent basis causes the Company to purchase substantial quantities of capacity even when little or no energy is purchased. For example, for the first four months of this year there has been no Centralia energy available for PGandE to purchase, but PGandE has been billed for 308 megawatts of capacity each month.

April 1, 1976, and a combustion turbine for the ensuing five-year period. Mr. Kaplan concluded that based on a study done by R. W. Beck & Associates, PGandE's savings for the 1972-1981 period are \$166,607,000, and for the 1976-1981 period (assuming the Pass Through Rate) are \$43,768,000. Similarly, Mr. Spiegel calculates PGandE's savings to be \$139,133,605 for the 1971-1976 period (assuming the oil-fired base-load generation alternative), and \$43,767,000 for the 1976-1981 period. (PGandE combustion turbine cost of \$125,254,000 less Bureau's estimated revenues of \$81,487,000). 5/ As shown in attached Tables A and E and the associated footnotes, PGandE estimates that although its benefits for the 1971-1976 period may have been as high as \$59 million (substantially less than the Spiegel and Kaplan estimates), the Company will pay over \$7 million more than its alternate cost during the 1976-1981 period if the Pass Through Rate is adopted.

For the period prior to April 1, 1976, PGandE paid the Bureau approximately \$32,859,000 for Centralia power. Had PGandE constructed alternate base-load generation in lieu of Centralia, the total capacity and energy costs for this period would have been \$92,280,000. Therefore, the total benefit to PGandE is estimated to be \$59,421,000. This is substantially less than the estimates of Messrs. Spiegel and Kaplan. One of the primary reasons for the difference between PGandE's estimates of benefits and those of NCPA and SMUD is the fact that NCPA and SMUD assume that PGandE's 1972-1976 alternate cost should be based on a gas turbine. This assumption is clearly unrealistic in view of the relatively large amounts of Centralia energy purchased during this period.

The Company believes that the proper basis for comparing PGandE's alternate cost for the 1972-1976 period is base-load generation 6/ such as Moss Landing Power Plant's Units No. 6 and No. 7. 7/

-
- 5/ As will be discussed herein, it appears that SMUD and NCPA have substantially overestimated PGandE's alternate costs.
- 6/ Gas turbines have a relatively high energy cost. Therefore, it is economic for them to run only for short periods of time (i.e., at low capacity factors of about 5% to 10%). In view of the relatively large amounts of Centralia energy available for PGandE to purchase between 1972 and 1976 (i.e., capacity factor of about 50%), it is unreasonable to assume that PGandE would have installed a gas turbine if Centralia were not available.
- 7/ In one of his studies, Mr. Spiegel assumes that PGandE's Pittsburgh Power Plant Unit No. 7 represents the Company's alternate cost for the 1972 - 1976 period. This assumption is unrealistic in view of the fact that Pittsburgh Unit No. 7 was not operational until late 1972, nearly one year after the Bureau began importing Centralia power. By comparison, the Moss Landing Units No. 6 and No. 7 were in the planning

The alternate generation source PGandE assumes for the five-year period beginning April 1, 1976, is a combination of a base-load fossil plant (Moss Landing Units No. 6 and No. 7) and a peaking turbine. PGandE estimates that its cost of power from this combination of resources would be about \$73,529,000 for the 1976-1981 period. If it is assumed that the Pass Through Rate prevails, the Company would pay \$80,665,000 for Centralia power purchased during the 1976-1981 period. Thus, PGandE would not realize savings by purchasing Centralia power, but would pay \$7,136,000 more than its alternate cost. Even if it is assumed that the Split Rate is adopted, PGandE's estimated savings are only \$17,589,000 as compared to the \$82,478,000 savings the preference customers realize from the purchase of Centralia.

In light of the above analysis, it is clear that both PGandE and the preference customers receive benefits by purchasing Centralia in lieu of arranging for alternate generation. Indeed, Tables A and B, appended to this letter, show that the preference customers' total benefits or savings for the ten-year period prior to April 1, 1981, are substantially more than those realized by the Company. Moreover, these tables further show that when certain other factors are considered, such as Energy Account No. 1, the total savings realized by the preference customers are three to five times greater than the benefits to PGandE. Under the Pass Through Rate and Split Rate proposals the preference customers realize a total savings under the contract of \$240,715,000 and \$212,884,000, respectively. The savings to PGandE are small by comparison: \$51,430,000 if the Pass Through Rate is adopted and \$76,155,000 if the Split Rate prevails. 8/ This result clearly is at odds with the "fair and equitable" standard of the contract.

and construction stages during the Contract 2948A negotiations and were in operation in late 1967 and 1968, immediately prior to importing the first Centralia power. Furthermore, the fact that some quantities of relatively inexpensive natural gas were available as a fuel during the 1971-1976 period appears to have been overlooked by Mr. Spiegel.

- 8/ It should be pointed out that the Company's comparison of the relative benefits of PGandE and the preference customers is conservative. In an effort to keep our analysis clear and reduce the number of debatable items, PGandE's assumptions underlying Tables A and B have been such that the benefits to PGandE appear somewhat larger than would have resulted from a reasonable, but less conservative, estimate. Similarly, the preference customers' benefits have been assumed on the low side. Moreover, the comparison has not taken into account the fact that only the preference customers are assured of purchasing Centralia. (For the first four months of this year the Company has not been able to purchase any Centralia energy.) Moreover, our studies do not reflect the fact that the preference customers benefit from the stability of operation and low reserve requirements made possible by the interconnection with the PGandE system.

11.1. The Centralia Rate Adopted by the Secretary Should Be One Which Recovers the Government's Cost of Centralia by a Fair Allocation of Costs Between Customers.

It is not argued here that the Bureau should not recover its Centralia cost. What is contended, however, is that the Centralia rate should be set to provide a fair and equitable allocation of those costs between PGandE and the preference customers.

PGandE has clearly demonstrated that because of the insistence that Centralia capacity be allocated separately from energy, the Pass Through Rate does not result in a fair allocation of the Bureau's Centralia cost. Indeed, even if one looks to the respective alternate costs of PGandE and the preference customers as a measure of fairness, it is clear that the benefits weigh heavily in favor of the preference customers.

The preference customers already realize a considerable benefit by their Congressionally mandated preference as to CVP hydroelectric power. The benefit of this low-cost power is not shared by the majority of citizens in California who are served by investor-owned public utilities such as PGandE and who, through taxes, subsidize the low-cost power enjoyed by the preference customers. The effect of shifting the full cost of Centralia capacity from the preference customers to PGandE's customers is to cause the Company's customers to further subsidize the "preference" customers. Such a result has not been authorized by Congress, is unacceptable and prohibited by the "fair and equitable" standard of the contract.

In light of these comments, the Company strongly urges that the Pass Through Rate be rejected.

Sincerely,

Respectfully,
E. W. STAMM

Attachments

cc: W. W. Lyons, Deputy Under Secretary
J. O. Horton, Assistant Secretary
D. N. Sachs, Deputy Assistant Secretary
F. W. Eikenberry, Staff Assistant
G. Stamm, Commissioner, Bureau of Reclamation
E. F. Sullivan, Assistant Commissioner, Bureau of Reclamation
B. E. Martin, Regional Director, Bureau of Reclamation
R. K. Pelz, Esq., Assistant Solicitor
J. C. Swidler, Esq., Attorney for the California Public Utilities Commission
G. Spiegel, Esq., Attorney for Northern California Power Agency
D. S. Kaplan, Esq., General Counsel, Sacramento Municipal Utilities District
G. C. Depken, Assistant Counsel, Naval Facilities Engineering Command

TABLE A - PASS THROUGH RATECENTRALIA RATE REVIEWESTIMATED BENEFITS OF PG&E AND CVP CUSTOMERS
FROM PURCHASE OF CENTRALIA AND CVP HYDRO POWER

--1971 - 1981--

<u>PG&E BENEFITS</u>		<u>CVP CUSTOMERS' BENEFITS (6)</u>	
<u>1. CENTRALIA PURCHASES</u>		<u>1. CENTRALIA PURCHASES</u>	
<u>1972 - Apr. 1976</u>		<u>1972 - Apr. 1976</u>	
Alternate Cost(1)	\$92,280,000	Alternate Cost(7)	\$ 39,794,000
Centralia Payment	<u>32,859,000</u>	Customers' Payment(8)	<u>10,853,000</u>
Benefit, 1972 -		Benefit, 1972 -	
Apr. 1976	59,421,000	Apr. 1976	28,941,000
<u>Apr. 1976 - Apr. 1981</u>		<u>Apr. 1976 - Apr. 1981</u>	
Alternate Cost(2)	73,529,000	Alternate Cost(9)	259,378,000
Centralia Payment	<u>80,665,000</u>	Centralia Cost(10)	<u>152,175,000</u>
Benefit, Apr.		Benefit, Apr.	
1976 - Apr. 1981	- 7,136,000	1976 - Apr. 1981	107,203,000
Subtotal, Centralia		Subtotal, Centralia	
Benefit	52,285,000	Benefit	136,144,000
<u>2. CVP HYDRO PURCHASES & N.W. DUMP</u>		<u>2. CVP HYDRO PURCHASES</u>	
<u>1972 - Apr. 1976</u>		<u>Apr. 1971 - Apr. 1976</u>	
Alternate Cost(3)	21,748,000	Alternate Cost(7)	87,096,000
Payment	<u>5,710,000</u>	CVP Payment	<u>51,168,000</u>
Benefit, 1972 -		Benefit, Apr.	
Apr. 1976	16,038,000	1971 - Apr. 1976	35,928,000
<u>1976 - 1981</u>		<u>Apr. 1976 - Apr. 1981</u>	
Only minor		Alternate Cost(9)	74,031,000
purchases.	0	CVP Payment	<u>45,530,000</u>
		Benefit, Apr. 1976 -	
		Apr. 1981	28,501,000
		Subtotal, CVP Hydro	64,429,000
<u>3. ENERGY ACCOUNT NO. 1</u>		<u>3. ENERGY ACCOUNT NO. 1</u>	
<u>Apr. 1971 - Apr. 1981</u>		<u>Apr. 1971 - Apr. 1981</u>	
Alternate Cost(4)	23,671,000	Alternate Cost(11)	46,920,000
Payment at 2.81		Payment at 2.81	
mills	<u>6,778,000</u>	mills	<u>6,778,000</u>
Loss(5)	<u>-16,893,000</u>	Benefit(12)	<u>40,142,000</u>
<u>4. TOTAL BENEFIT (1+2+3)</u>		<u>4. TOTAL BENEFIT (1+2+3)</u>	
Benefit, 1971 - 1981	<u>\$51,430,000</u>	Benefit, 1971 - 1981	<u>\$240,715,000</u>

6-15-76

TABLE B - SPLIT RATECENTRALIA RATE REVIEWESTIMATED BENEFITS OF PG&E AND CVP CUSTOMERS
FROM PURCHASE OF CENTRALIA AND CVP HYDRO POWER

--1971 - 1981--

PG&E BENEFITS1. CENTRALIA PURCHASES1972 - Apr. 1976

Alternate Cost(1)	\$92,280,000
Centralia Payment	<u>32,859,000</u>
Benefit, 1972 - Apr. 1976	59,421,000

Apr. 1976 - Apr. 1981

Alternate Cost(2)	73,529,000
Centralia Payment	<u>55,940,000</u>
Benefit, Apr. 1976 - Apr. 1981	17,589,000

Subtotal, Centralia Benefit	77,010,000
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2. CVP HYDRO PURCHASES & N.W. DUMP1972 - Apr. 1976

Alternate Cost(3)	21,748,000
Payment	<u>5,710,000</u>
Benefit, 1972 - Apr. 1976	16,038,000

1976 - 1981

Only minor purchases.	0
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3. ENERGY ACCOUNT NO. 1Apr. 1971 - Apr. 1981

Alternate Cost(4)	23,671,000
Payment at 2.81 mills	<u>6,778,000</u>
Loss(5)	-16,893,000

4. TOTAL BENEFIT (1+2+3)

Benefit, 1971 - 1981	<u>\$76,155,000</u>
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CVP CUSTOMERS' BENEFITS(6)1. CENTRALIA PURCHASES1972 - Apr. 1976

Alternate Cost(7)	\$ 39,734,000
Customers' Payment(8)	<u>10,853,000</u>
Benefit, 1972 - Apr. 1976	28,941,000

Apr. 1976 - Apr. 1981

Alternate Cost(9)	259,378,000
Centralia Cost(10)	<u>176,950,000</u>
Benefit, Apr. 1976 - Apr. 1981	82,478,000

Subtotal, Centralia Benefit	111,419,000
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2. CVP HYDRO PURCHASESApr. 1971 - Apr. 1976

Alternate Cost(7)	87,055,000
CVP Payment	<u>51,163,000</u>
Benefit, Apr. 1971 - Apr. 1976	35,923,000

Apr. 1976 - Apr. 1981

Alternate Cost(9)	74,031,000
CVP Payment	<u>48,635,000</u>
Benefit, Apr. 1976 - Apr. 1981	25,395,000

Subtotal, CVP Hydro	61,323,000
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3. ENERGY ACCOUNT NO. 1Apr. 1971 - Apr. 1981

Alternate Cost (11)	46,920,000
Payment at 2.81 mills	<u>6,778,000</u>
Benefit(12)	40,142,000

4. TOTAL BENEFIT (1+2+3)

Benefit, 1971 - 1981	<u>\$212,884,000</u>
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6-15-76

TABLES A AND B

Footnotes:

- (1) PGandE's alternate costs were based on the as constructed cost of Moss Landing Unit Nos. 6 and 7. The as constructed cost was \$163.3 million including production plant, step-up transformation, general plant, and transmission. Capacity costs were calculated using an annual cost percentage of 14% which includes all costs on an annualized basis except fuel costs. The resulting cost of capacity, including 20% for reserves, was \$1.55/kw-mo. Commercial operation was December 10, 1967, and August 16, 1968, for Unit Nos. 6 and 7, respectively. A heat rate for the combined units of 9,000 BTU/kwh was used. The historical heat rate for 1975 was 8996 BTU/kwh, net. The historical, as burned, gas and oil fuel costs for these units in mills/kwh are as follows:

1972	3.61 mills/kwh
1973	4.58 mills/kwh
1974	9.66 mills/kwh
1975	14.63 mills/kwh

- (2) Alternate cost based on:

- a) For capacity with energy at 80% capacity factor - Moss Landing Unit Nos. 6 and 7 as in footnote (1) above with assumed average fuel costs of \$15.50/Bbl. (22.3 mills/kwh) for 1976-1981. Moss Landing Unit Nos. 6 and 7 were also used for the 1976-1981 period because as a practical matter, this choice would have been made prior to the Centralia unit becoming operational in 1972. If Diablo Canyon Unit Nos. 1 and 2 (nuclear), which are nearing completion, were selected as the alternative during this period, PGandE's alternate cost would be lower than the \$73,529,000 obtained using the Moss Landing units.
- b) For capacity without energy - San Francisco gas turbines. Capital cost of \$125/kw; annual charge rate of 15.8%; capacity cost w/20% reserves = \$1.97/kw-mo.

- (3) Alternate cost based on costs at Moss Landing Unit Nos. 6 and 7 as in footnote (1) above. This assumed alternative results in a PGandE alternate cost that is too high, since PGandE's alternate cost for this surplus/dump energy was, in most instances, less than the cost of thermal production. However, for ease of calculation, Moss Landing costs have been assumed.
- (4) Alternate cost based on estimated average cost of energy generation on PGandE system as follows:

1971	2.81 mills/kwh
1972	3.81 mills/kwh
1975	8.44 mills/kwh
1976 and thereafter	11.00 mills/kwh

- (5) Estimated loss of \$16,893,000 is for period April 1971 - April 1981. Estimated additional loss for sales from Energy Account No. 1 from April 1981 until the bank account is depleted is \$86,479,000.
- (6) CVP customer benefits are estimated on the basis of the benefits derived from the increased capability of the USBR to serve customer load above 460 megawatts due to the firming support of contractual arrangements with PGandE. The customer load level has been assumed to be 925 MW until 1977 and gradually increasing to 1050 MW in 1981. It is assumed that without such contractual arrangements between the USBR and PGandE, the CVP customers would have constructed fossil generation to serve their increased loads. See footnotes (7) and (9).
- (7) Alternate cost based on Moss Landing Unit Nos. 6 and 7 as in footnote (1) above with public agency ownership. Cost of money of 4%. Annual charge rate of 6.25% which results in a capacity rate of \$0.70/kw-mo., including 20% reserves. This alternative cost results in a conservative estimate of the preference customers' cost because it assumes an exact resource/load fit without staged resource additions and the resulting overbuild.
- (8) Based on customer payments at CVP rates, the USBR's cost for Centralia during 1972 - March 1976 of approximately \$132,724,000 exceeded the total payment by PGandE and the CVP customers by approximately \$89,000,000.
- (9) Alternate cost based on Moss Landing Unit Nos. 6 and 7 with public agency ownership and assumed average fuel costs of \$15.50/Bbl. for 1976-1981. See footnotes (1) and (7).
- (10) The estimated cost to the CVP customer for Centralia power for 1976-1981 has been calculated by subtracting PGandE's estimated payment from the estimated total cost of Centralia to the USBR so that the USBR's total costs are recovered. (The amount shown is not the amount of the customers' payments for Centralia power at CVP rates.)
- (11) Alternate cost based on Moss Landing Unit Nos. 6 and 7 with assumed average fuel costs of \$15.50/Bbl. (22.3 mills/kwh) for 1976-1981.
- (12) Estimated benefit of \$40,142,000 is for period April 1971 - April 1981. Estimated additional benefit to the customers from sales from Energy Account No. 1 (at an assumed alternate cost of 22.3 mills/kwh) from April 1981 until the bank account is depleted is \$206,035,000.

Mr. GREENE. You might also return to document D [see p. 10]. We will be discussing that as well.

Mr. FRIZZELL. Yes, sir. I have both documents, Mr. Greene.

Mr. GREENE. If you will turn your attention to page 6 of the P.G. & E. letter, June 25, 1976.

Mr. FRIZZELL. Yes, sir.

Mr. GREENE. It is sent to Mr. Kleppe.

Mr. FRIZZELL. All right.

Mr. GREENE. Looking at the first full paragraph, Mr. Frizzell, the last two sentences indicate P.G. & E.'s analysis of its own alternate costs with respect to power coming in from the Centralia plant during the 1976-81 period. Would you please read those two sentences for us?

Mr. FRIZZELL. The full paragraph, then. You are talking about the first paragraph on page 6?

Mr. GREENE. Yes. Read the last sentence.

Mr. FRIZZELL. "Even if it is assumed that the split rate is adopted, P.G. & E.'s estimated savings are only \$17,589,000 as compared to the \$82,478,000 savings the preference customers realize from the purchase from Centralia."

Mr. GREENE. You have P.G. & E., clearly an interested party, saying under the split rate they would save approximately \$17 million over their alternate costs. Is that right?

Mr. FRIZZELL. And in addition thereto, pointing out that the preference rate customers would save \$82 million, or about five times as much.

Mr. GREENE. I understand that. Your decision related only to sales to P.G. & E.

Mr. FRIZZELL. But I had to take all matters into consideration to come up with a fair and equitable decision.

Mr. GREENE. But it is correct they estimated that their savings on the split rate would be \$17 million, and if you turn to the previous line you will note that they indicate their losses, even by their own admission under the passthrough or full cost method, would have been approximately \$7 million as opposed to the alternate rate.

Mr. FRIZZELL. Does that appear in the same paragraph?

Mr. GREENE. Yes; in the preceding sentence.

Mr. FRIZZELL. That is correct.

Mr. GREENE. Turning now, Mr. Frizzell, to the last sentence in the second paragraph on that page, beginning "Savings to P.G. & E. are small." Would you read that?

Mr. FRIZZELL. "Savings to P.G. & E. are small by comparison, \$51,430,000 if the passthrough rate is adopted, \$76,155,000 if the split rate prevails. This result clearly is at odds with a fair and equitable standard of the contract."

Mr. GREENE. So if one took a 10-year period, the period from 1971 through 1981, they would under both options be well ahead of the game, \$51 million versus \$67 million. Is that correct?

Mr. FRIZZELL. By taking a look at both 5-year periods going back to 1971?

Mr. GREENE. That is my understanding of this.

Mr. FRIZZELL. I think your statement is correct. However, I have to point out that the Solicitor's Office advised me during the same period

of time that I could not take into consideration what happened between 1971 and 1976.

Mr. GREENE. We will get to that.

Mr. FRIZZELL. All right.

Mr. GREENE. But they do state, do they not, in the penultimate sentence, savings to P.G. & E. are small by comparison, \$51 million if the passthrough rate is adopted and \$76 million if the split rate prevails?

Mr. FRIZZELL. That is what they say in their letter on page 6, second paragraph.

Mr. GREENE. Would you regard \$51 million as a small amount of money offhand?

Mr. FRIZZELL. No; nor do I regard as small the 8 million customers they have. I can't comprehend those kinds of figures. I have never been involved with congressional budgets, I guess.

Mr. GREENE. Let me turn you back to Document D [see p. 10]. I direct your attention to page 6 of that document. This is a letter from Spiegel & McDiarmid.

Looking down at paragraph marked D it states, "Looking to the future the same relationship applies. Total estimated estimates equal to the cost of service are for the 16-month period as follows:".

Mr. FRIZZELL. Go to the next page?

Mr. GREENE. Yes. You will note that Spiegel & McDiarmid, on behalf of Northern California Power Agency, estimates P.G. & E.'s ultimate cost at \$125 million, far in excess of the passthrough rate. Is that correct?

Mr. FRIZZELL. It states, "P.G. & E. alternate cost, \$125,254,000, combustion turbine."

Mr. GREENE. Let me turn you to Document K in your packet.

Mr. FRIZZELL. Yes, sir.

[Document K, referred to, follows:]

DOCUMENT K

Draft
CL Rose:rod 6-29-76

Subject: PG&E Rate Determination - CVP (Response to Under Secretary's
May 27, 1976, Memorandum)

A review of alternative costs to PG&E for capacity and energy shows:

1. Alternative costs to PG&E for capacity are less costly than the proposed passthrough rate to PG&E for NW capacity, about one-half as costly.
2. Alternative costs to PG&E for energy are more costly than the proposed passthrough rate to PG&E for NW energy, about 2.3 times as costly.
3. The cost to PG&E during the 1976-1981 period for alternative capacity and energy equivalent to that assumed to be delivered to it by the CVP would be about the same as the cost for NW power from the CVP with the passthrough rate (\$81,500,000) and about 44 percent more than the suggested split rate (\$56,500,000).
4. However, the NW import delivered to PG&E is more variable in occurrence than alternative sources. This is because PG&E receives only the residual NW capacity and energy after the needs of the project and the preference customers have been met.
5. PG&E, in its June 25, 1976, letter to the Secretary, contends that the proposed passthrough rate is not fair and equitable and develops a substantial argument in favor of a lower rate, primarily on the basis that greater benefits have accrued to the other project customers than it has realized. While this may be true, the base upon which the benefits are measured is not the same. PG&E shows that the preference customer benefits would be 4.7 times the PG&E benefits with the passthrough rate; however, since the preference customers receive 5.2 times as much energy, the indicated benefits per kWh are greater to PG&E.
6. PG&E further shows in its June 25, 1976, letter that 10-year benefits to it would be about \$51,430,000 with the passthrough rate. Furthermore, that the suggested split rate would produce even greater benefits which it estimates to be \$76,155,000.

Mr. GREENE. Document K is a draft response to a request you made on May 27 for alternate cost information.

Mr. FRIZZELL. That I made?

Mr. GREENE. That you requested.

Mr. FRIZZELL. This doesn't show who is the author of this document.

Mr. GREENE. You will note at the top it states "Draft." Then it is marked "C. L. Rose." That is Clark Rose of the Bureau staff.

Mr. FRIZZELL. Sorry?

Mr. GREENE. Mr. Clark Rose of the Bureau staff.

Mr. FRIZZELL. Bureau of Reclamation staff?

Mr. GREENE. Yes.

Mr. FRIZZELL. Thank you.

Mr. GREENE. If you will turn to paragraph No. 3 of that document, it states: "The Bureau staff, an independent party to this proceeding, estimated that P.G. & E.'s alternative costs were approximately the same as the price reflected in the passthrough rate." Is that a correct summary?

Mr. FRIZZELL. That is what it states.

Mr. GREENE. Thank you, Mr. Frizzell.

Now if you will turn to Document L in your packet.

[Document L, referred to, follows:]

DOCUMENT L

CL Rose:rod 7-1-76

DEPARTMENT OF THE INTERIOR
Office of the Secretary

FINAL POSITION ON AN
ADJUSTMENT IN RATES TO THE PACIFIC GAS AND ELECTRIC COMPANY
FOR NORTHWEST CAPACITY AND ENERGY

On February 20, 1976, we issued a statement setting forth our "Proposed Adjustment in Rates to the Pacific Gas and Electric Company for Northwest Capacity and Energy," under Contract No. 14-06-200-2948A, noting that comments would be received until March 24, 1976. In response, comments were timely submitted by the Pacific Gas and Electric Company (PG&E); the Northern California Power Agency and the cities of Biggs, Gridley, Palo Alto, Redding, Roseville, and Santa Clara, California, and the Plumas-Sierra Rural Electric Cooperative, Inc. (NCPA); the Federal agencies that are customers of the Central Valley Project (Federal agencies); the California Public Utilities Commission (PUC); the Arvin-Edison Water Storage District (Arvin-Edison); the Sacramento Municipal Utility District (SMUD); and the National Aeronautics and Space Administration, Ames Research Center (NASA).

On March 30, 1976, PG&E requested at least a 30-day delay before we announced our final decision and agreed that the rate, when finally determined, would be retroactive to April 1, 1976. That request was granted and subsequently several meetings were held during April and May with PG&E and with representatives of the preference customers. At those meetings, the possibility of a third alternative rate to PG&E was discussed. One of the possible alternatives suggested would involve PG&E paying for capacity from the Northwest at two different rates. The alternative discussed would separate the total Northwest capacity into two parts, one part (that associated with energy at load factor) would be charged at the peak rate; the balance of the capacity would be charged at the CVP rate. (During the discussions, impacts of this "split rate" were discussed based on 60 percent load factor, and it was assumed that the CVP rate would be \$1.75/KW/mo.)

In general, PG&E argues that the proposed capacity and energy charges for the "passthrough" rate are too high and that it should be charged the same rate for Northwest power as for project power. Most of the preference customers contend that the "passthrough" rate is too low and that any "split rate" is completely inappropriate. NASA supports our "efforts to equitably and fairly distribute the actual costs of Northwest power among the Bureau's customers." After reviewing the arguments pro and con, we have concluded that our proposed rate was a proper one and here reaffirm it with several minor clarifications. This position has been discussed with PG&E, which informally advises us that it cannot agree to it. Consequently, if this PG&E position is confirmed, the matter will be submitted to the Federal Power Commission for final decision in accordance with article 32 of the contract."

PG&E expresses uncertainty as to the identity of the costs which would be used for determining the capacity and energy charges. With respect to the Centralia plant, these are described in the agreements relating to the plant, particularly the Disposition Agreement of December 26, 1967, Contract No. 14-06-200-3613A, and Supplemental Agreement No. 1 dated December 30, 1968. The amounts paid to the Bonneville Power Administration are governed principally by the Memorandum of Understanding of March 13, 1972, Contract No. 14-06-200-5715A. Arrangements could be made to enable PG&E to inspect and audit the Centralia plant's books and records if this is desired.

The minor clarifications of the earlier proposal resulting from PG&E's comments are embodied in attachment A, attached hereto, which is a revision of exhibit A attached to the February 20 statement.

PG&E points out that article 32 of the contract provides that the rate for Northwest capacity and energy shall be "adjusted" on April 1, 1971, and "every five years thereafter." This implies that the rate should be fixed for every 5-year period rather than adjusted annually as we have proposed. We believe the annual adjustment would be fairer to the parties because a fixed 60-month "passthrough" rate would need to allow for future unknown Centralia cost charges that cannot now be estimated with accuracy. Overestimates would be unfair to PG&E while underestimates would be unfair to the CVP and its preference customers.

PG&E argues that the "passthrough" rate, based on actual Centralia costs, is not fair and equitable and that it instead should be charged the same rate as the other customers. This obviously is not in accord with the intent of the contract because, if both rates were the same, there would be no purpose in differentiating and separately stating them. It is apparent that the contract authors intended that the two rates would be different after cost experience was obtained. On the subject of fairness, the NCPA brief contains calculations indicating that, at anticipated capacity factors, the "passthrough" rate for Centralia power is comparable to or less than what PG&E would be expected to pay for power from coal-fired steam-plants or combustion turbines.

During the meetings in April and May, there was further discussion regarding the cost to PG&E of alternatives for Northwest power and how such costs might relate to the rates being considered. In SMUD's letter of May 21, 1976, and NCPA's letter of May 24, 1976, estimated costs of alternatives were given which far exceed the cost of capacity and energy to PG&E with the "passthrough" rate. In PG&E's letter of June 25, 1976, it gives its estimate of alternative costs both for it and the preference customers. PG&E's estimates are that its alternative costs for the 1976-1981 period would be a little less than the cost to it with the "passthrough" rate. However, the data presented by PG&E in its June 25, 1976, letter show that while PG&E will have received lesser dollar benefits than the preference customers will receive, the base upon which those benefits are measured is not the same. PG&E shows that the preference customer benefits are 4.7 times the PG&E benefits ($\$240,715,000 \div \$51,430,000$) with the "passthrough" rate; however, since the preference customers receive 5.2 times as much energy, the benefits are greater to PG&E, measured on a per kW basis.

Our exclusion of the Intertie costs in California from the cost calculation has been challenged by the preference customers. If included and assigned entirely to capacity, these costs would add about 30 cents a month to the capacity charge per kW, if assigned to energy, about one-half mill per kWh. We recognize that normally transmission expenses are considered part of the delivered cost of power. However, we cannot be sure that the contract intends that these costs should be included in the rate under article 22(b)(2). Thus, there is no reference there or in the definition of Contract Dependable Capacity to delivery costs; in article 19(d), the phrase "using transmission capability available to the United States" and

the reference to availability of Northwest capacity and energy at the Oregon-California border suggest that the United States is to absorb the Intertie costs in California. Giving PG&E the benefit of the doubt on this point, we believe it is appropriate to exclude these costs.

The briefs of SMUD, NCPA, and the Federal agencies urge that the rate should be set high enough to recover alleged losses on the sale of Centralia capacity and energy to PG&E from the time such imports began through the end of March 1976. It is estimated by NCPA and SMUD that these "losses" amount to \$74 million. SMUD argues that we have admitted that retroactive recovery is required or at least appropriate because of our reference to the language in article 32 that says that the joint review "shall take into account substantial savings accruing to either party . . . during the preceding five years." SMUD misconstrues our reference and the contract. We find no authority whatsoever in the contract for a retroactive recovery of costs or losses. The reference to "substantial savings" does not support such recovery. It operates only prospectively as a factor to take into consideration in setting new rates for the next 5-year period. Thus, it serves to counterbalance PG&E's plea that, for various reasons, the rate we propose is unfair to it. Even assuming arguendo that there is some merit to the contention that the rate is unfair when viewed in isolation, this must be weighed against the substantial savings that PG&E has enjoyed over the past 4 years.

We, therefore, reaffirm that the rate to PG&E for Northwest capacity and energy will be as announced on February 20, 1976.

Secretary of the Interior

Date

METHODOLOGY FOR CALCULATING CAPACITY AND ENERGY CHARGES FOR
NORTHWEST POWER SOLD TO PACIFIC GAS AND ELECTRIC COMPANY

The annual cost of capacity will be calculated as the sum of:

- a. 100 percent of annual fixed cost of the Centralia facilities
- b. 65 percent of the annual O&M cost of the Centralia facilities
- c. 10 percent of the annual fuel cost for the Centralia facilities
- d. That part of wheeling and capacity reserve annual cost paid to BPA proportional to the capacity component of the total capacity and energy cost of Centralia.

The monthly capacity charge per kilowatt will be the total annual cost for Northwest capacity divided by 12 and then by 382,000 kilowatts, the Northwest capacity delivered to the CVP load center at Tracy.

The annual cost of energy will be calculated as the sum of:

- a. 35 percent of the annual O&M cost of the Centralia facilities
- b. 90 percent of the annual fuel cost of the Centralia facilities
- c. That part of the wheeling and capacity reserve annual cost paid to BPA proportional to the energy component of the total capacity and energy cost of Centralia
- d. Estimated annual energy support purchased from the Northwest

The energy charge per kilowatthour will be the total energy cost divided by the Centralia energy delivered to the CVP load center at Tracy.

Not later than October 1 of each year, Reclamation will prepare and furnish to PG&E estimated energy and capacity charges for Northwest power determined on this basis. These charges will apply to sales to PG&E during the following year. Annually, during January, the billing to PG&E for the previous year will be adjusted as necessary based on actual billing of Northwest power cost to CVP.

Mr. GREENE. That is a draft document prepared by the Bureau with respect to the Centralia rate.

Mr. FRIZZELL. Unsigned and undated. My copy is, anyway. Evidently the draft never was issued, I assume.

Mr. GREENE. That is my understanding. I would like to know what happened to this.

Mr. MOSS. It is dated.

Mr. FRIZZELL. I meant on the last page as to when it might have been signed it is undated.

Mr. GREENE. Let's clarify that. You will note at the top righthand corner of the page it is marked "C. L. Rose," again Mr. Clark Rose of the Bureau staff, dated July 1, 1976.

Mr. FRIZZELL. Yes.

Mr. GREENE. As you suggested earlier, it is not signed nor is it dated.

Mr. FRIZZELL. That is right.

Mr. GREENE. There is a space for the date and signature. Is that correct?

Mr. FRIZZELL. Yes.

Mr. GREENE. The second full paragraph on page 1 indicates generally there had been a 30-day delay, a series of alternatives had been discussed.

Then on the second page, first full paragraph, approximately eight lines down, there is a sentence which states, "After reviewing the arguments pro and con"—parenthetically with regard to the split and pass-through rate—"we conclude the rate was a proper one and here reaffirm it with several minor clarifications."

Is that a correct reading?

Mr. FRIZZELL. I respectfully say no, Mr. Greene. That is not a proper reading.

Mr. GREENE. Would you give it to me, then?

Mr. FRIZZELL. You injected at one point that they had reviewed two rates?

Mr. GREENE. Yes. Why not just read the document?

Mr. FRIZZELL. Actually they reviewed three rates—what you and I are talking about as a passthrough rate, which would have resulted in about a 44-percent increase to the preference customers and—to P.G. & E. Just a moment. These rates start running together. Let me select them out and get the rates straight.

The passthrough rate was one of three.

Mr. GREENE. All right.

Mr. FRIZZELL. It resulted in a 44-percent increase to preference customers.

Then the split rate that you and I have talked about would have resulted in about a 55-percent increase in rates to the preference customers.

Mr. GREENE. Sixty-six percent is my understanding.

Mr. FRIZZELL. No. There was a third rate called the project rate, one that I did not choose, which would have resulted in a 66-percent increase in rates to the preference customers.

Mr. GREENE. Is my—

Mr. FRIZZELL. I chose the middle selection, not the high or low one.

Mr. GREENE. We are focusing on this document. After reviewing the arguments pro and con—

Mr. FRIZZELL. Of all three.

Mr. GREENE. We have concluded our proposed rate, which was, as you will recall from the February 20 document we have looked at, the passthrough rate, it was "a proper one and here reaffirm it." Is that correct?

Mr. FRIZZELL. That is a logical interpretation; yes.

Mr. GREENE. Turning to document M, Mr. Frizzell. I believe that is unfortunately a very bad copy. It is a Department of Interior document dated July 9.

[Document M, referred to, follows:]

DOCUMENT M

United States Department of the Interior
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

JUL 9 1976

Memorandum

To: Assistant Secretary--Program Development and Budget

From: Under Secretary

Subject: Pacific Gas and Electric Company (PG&E) Rate Determination

On February 20, 1976, the Department announced a proposed adjustment in the rates to be paid by PG&E in California for capacity and energy imported from the Northwest by the Bureau of Reclamation. PG&E, in large, criticized the proposed rates as being inconsistent with the terms of the contract which, inter alia, states that rates for PG&E will be "fair and equitable." Since that time, the Assistant Secretary--Land and Water Resources, and the Bureau of Reclamation, have reviewed the proposed rates and other rate alternatives. PG&E and the preference customers of the Bureau of Reclamation in California, the parties affected by the PG&E rates, have submitted comments and analyses for the Department's consideration in reaching a final decision.

Before I reach a final conclusion on this matter, I would like you to review the rates proposed by the PG&E and the preference customers and, in addition, the analysis (also attached) prepared by the Bureau. Based on your review, you should recommend to me the basis for the final rates to PG&E.

A number of considerations are germane to this rate setting. There are, however, two issues which appear most important and these warrant your specific consideration:

1. Whether the rate charged for capacity should be based on cost or the amount of energy produced. The rates proposed by the Department set the charge for capacity on the basis of cost which was estimated at \$4.33 per kw/mo. This rate reflected an average cost per kw/mo of 400 MW of capacity imported by the Bureau from the Northwest. PG&E has argued that this charge is unfair because the contractual arrangement does not enable the company to obtain energy in amounts approaching typical load factors. The Bureau of Reclamation has estimated that the capacity available to PG&E will have associated energy at an average load factor of about 20 percent over the period 1975-1981. The load factor applicable to the capacity and energy available to the preference customers over the same 5-year period is anticipated to be about 60 percent. PG&E asserts that the capacity it receives is worth less than the Department's

proposed \$4.35/kw/yr. The preference customers representatives assert that the rate set per unit of capacity is independent of the amount of energy that accompanies it and that PGE should pay the full cost of service rate of \$4.30/kw/mo.

2. How to account for "savings" that have accrued to the PGE and the preference customers in setting the rates to the PGE. Under the terms of the contract, the savings that have accrued to PGE and the Department over the preceding five-year period are to be taken into account in adjusting the rates to PGE for capacity and energy. The particular savings that are appropriate to consider, their dollar magnitude, and the manner in which the rates to PGE are to reflect savings, is not fully agreed upon. The different views of the PGE and the preference customers on savings to be considered are expressed in the attached materials.

A report on this review including your recommendations for final rates for capacity and energy to the PGE with supporting arguments should be submitted to me by July 19. I have requested that the Assistant Secretary, Land and Water Resources, the Solicitor, and the Commissioner provide whatever assistance you may need in conducting your review.

Deputy Under Secretary

Enclosures

cc:
Executive Assistant to the Secretary
Solicitor
Assistant Secretary LW
Commissioner, LW
Deputy Under Secretary
Executive Secretariat

LW:BEikenberry:gev 7/7/75

Mr. FRIZZELL. I hope I will be able to read along with you. It is a poor copy; yes.

Mr. GREENE. This is a memorandum from the Deputy Under Secretary to the Assistant Secretary for Program Development and Budget.

Mr. FRIZZELL. That is correct.

Mr. GREENE. Basically, what this document suggests is that the Assistant Secretary should prepare information on the various options involved and give some information with respect to alternate costs. Is that correct?

Mr. FRIZZELL. I have not read it but that is my recollection of what happened in a memo on or about that date.

Mr. GREENE. Turning to N in your packet, again this is a bad copy——

[Document N, referred to, follows:]

DOCUMENT N

PACIFIC GAS AND ELECTRIC COMPANY RATE DETERMINATION

PDB STAFF ANALYSIS

1976-1981 Rates

The rate charged to PG&E should be based solely on the contract between the Bureau of Reclamation and PG&E. The Preference Customers (PCs) are not a party to that contract. While they certainly have a stake in the outcome because any costs of Northwest Power not paid by PG&E must be borne by the PCs, the rate which will be paid by the PCs is irrelevant in determining the rate to be paid by PG&E. The interests of the PCs were represented at the time of execution of the contract, and are represented throughout the life of the contract, by their wholesaler, Reclamation. The contractual provision that "rates shall be fair and equitable" requires merely that rates fairly and equitably reflect costs. It does not require the application of some unspecified concept of fairness and equity to divide the costs between the PCs and PG&E. If it did, the contract would be essentially useless in determining the proper rate. In fact, the contract actually provides, as Reclamation correctly interprets it, that the rate charged for Northwest Power is to be based on the cost of Northwest Power.

Since the procedures for determining the amounts of energy and capacity to be purchased by PG&E are specifically set forth in the contract, the only issue in setting the rates for power purchased by PG&E in the 1976-1981 period is whether the rates set for capacity and for energy fairly and equitably reflect the costs of such capacity and energy. The methodology used by Reclamation to calculate the "pass-through" rate appears to conform to standard industry practice in that regard.

PG&E's interpretation of the contract such that it should only be charged for capacity in proportion to the energy it receives is clearly wrong. Capacity and energy are frequently sold separately, and PG&E has paid separately for capacity and energy without objection since the inception of the contract in 1967.

PG&E further argues that it should not be charged rates which are sufficient to cover the costs of the capacity and energy it has contracted to purchase.

PG&E believes the amount of capacity it has contracted to purchase is not adequately supported by the amount of energy it has contracted to purchase. However, capacity at a low load factor has value in that it can be used during the utility's peak period. It is not uncommon for utilities to build capacity which is used very infrequently and at low load factors. Utilities will build this capacity to improve their generating reserve (peaking reserve) and to improve total system reliability.

Clearly PG&E's argument that the amount of capacity it has contracted to purchase is not adequately supported by the amount of energy it has contracted to purchase is not a challenge to the rates, but is a challenge to the amounts of energy and capacity it agreed to buy under the contract. PG&E is essentially arguing against the contract itself. Good business practice dictates that PG&E be held to its contract regardless of whether in retrospect it appears to be a good deal for PG&E.

Even a retrospective look at this contract, however, shows that the expected benefits to PG&E at the execution of the contract could easily have exceeded the expected costs. PG&E got free interconnection to the Pacific Northwest-Southwest Intertie, which brought increased system reliability. PG&E also got the benefit of being able to purchase relatively cheap Northwest Imports to tide it over while it brought nuclear plants on line, and an agreement that

Reclamation would buy this power back from PG&E when PG&E expected to have surplus nuclear energy. In short, the contract saved PG&E from having to build additional capacity which it would need for only a few years. The provision of the contract in which PG&E agreed to purchase a certain amount of energy and capacity was part of this larger package, and its fairness can only be judged in the context.

Even looking at this provision alone, however, PG&E's probable expectations appear to have been more than fulfilled. The contractual formula for determining the amounts of energy and capacity to be purchased by PG&E, and historical and projected purchases are displayed in Table I. PG&E is billed for residual energy and capacity of the combined CVP hydropower plus imported Northwest power, after the energy and capacity used by the PCs is deducted. In 1971-1976, the residual energy gave PG&E's purchased capacity a 69.9% load factor. In 1976-1981 the projected load factor to PG&E is 18.1%. This difference is primarily because the load factor in 1971-1976 was higher than probably anticipated by PG&E at the execution of the contract since during the period 1971-1976 1) Northwest energy was delivered at higher than required load factors and 2) the amount of energy generated by the CVP hydro plants was greater than projections of average energy generation would anticipate. The difference between PG&E's load factors in 1971-1976 and 1976-1981 indicates that PG&E did better than expected during 1971-1976 and not that it will be doing any worse than expected in 1976-1981. So, even looking at this one provision of the contract alone, the long-term outcome probably more than meets PG&E's expectations at the execution of the contract.

TABLE I
Estimated Average Monthly Allocations of CVP Hydro + Northwest Imports

	1971-1976		1976-1981		Load Factor
	Capacity (mw)	Energy (gwh)	Capacity (mw)	Energy (gwh)	
CVP Hydro (less project load)	954	368	927	282	46.7%
Northwest Imports	354	219	302	224	80.1%
TOTAL CVP Power	1308	587	1209	506	57.1%
Billed to Preference Customer	924	442	975	475	66.7%
Billed to PG&E	284	145	234	31	18.1%

NOTE: The procedures for determining the amounts of capacity and energy that are billed to PG&E are clearly specified in the contract. Once the amounts of capacity and energy are determined the contract requires that the rates fairly and equitably reflect costs.

We have argued that 1) the contract itself should be the sole determinant of the rate charged to PG&E; 2) the contract as a whole provides substantial benefits to PG&E; and the fact that PG&E is projected to receive energy at a lower load factor during 1976-1981 than it did during 1971-1976, when viewed in the context of the entire contract, must be viewed as fair; and 3) even the projected outcome under the provision of the contract which sets the amounts of energy and capacity to be purchased by PG&E, when isolated, has probably more than met PG&E's expectations at the execution of the contract. Notwithstanding these arguments, and not withstanding that the rates should not be set to satisfy some unspecified concept of fairness and equity, the new rates, overall, appear to fairly allocate the burden of increased costs between PG&E and the PCs.

The contract provided for a rate adjustment in April 1, 1971. At that time, however, Centralia was not in service, so accurate estimates of costs were not available, so the adjustment was not made. Had costs been accurately forecast in 1971 and the rate set on that basis, however, Table 2 shows that PG&E would have paid \$103 million over the five year period rather than the \$37 million it did pay.

TABLE 2

Estimated Allocations of Northwest Import Costs
(MILLIONS OF DOLLARS)

	Actual Allocation Based on Projected Costs 1971-1976	Estimated Allocation Based on Actual Costs 1971-1976	Pass-Through 1976-1981	Pass-Through Plus Savings 1976-1981
Total Northwest Costs	148	148	240	240
Costs Allocatable to PG&E	37	103	84	150
Costs Allocatable to PCs	111	45	156	90

NOTE: The above amounts are FDE estimates based on incomplete Reclamation data. If our recommendations are adopted we suggest that these amounts be accurately calculated.

When viewed in comparison to what PG&E should have paid in 1971-1976, the pass-through rate actually provides for a decrease in total payments from PG&E to Reclamation for purchases in 1976-1981. This is fair and equitable,

however, since PG&E will be purchasing less energy and less capacity.

Table 2 shows that total Northwest costs are projected to increase in 1976-1981.

Table 3 shows that the increased costs are primarily in the fuel component of

Northwest costs. Since only 10% of fuel costs are allocated to capacity and

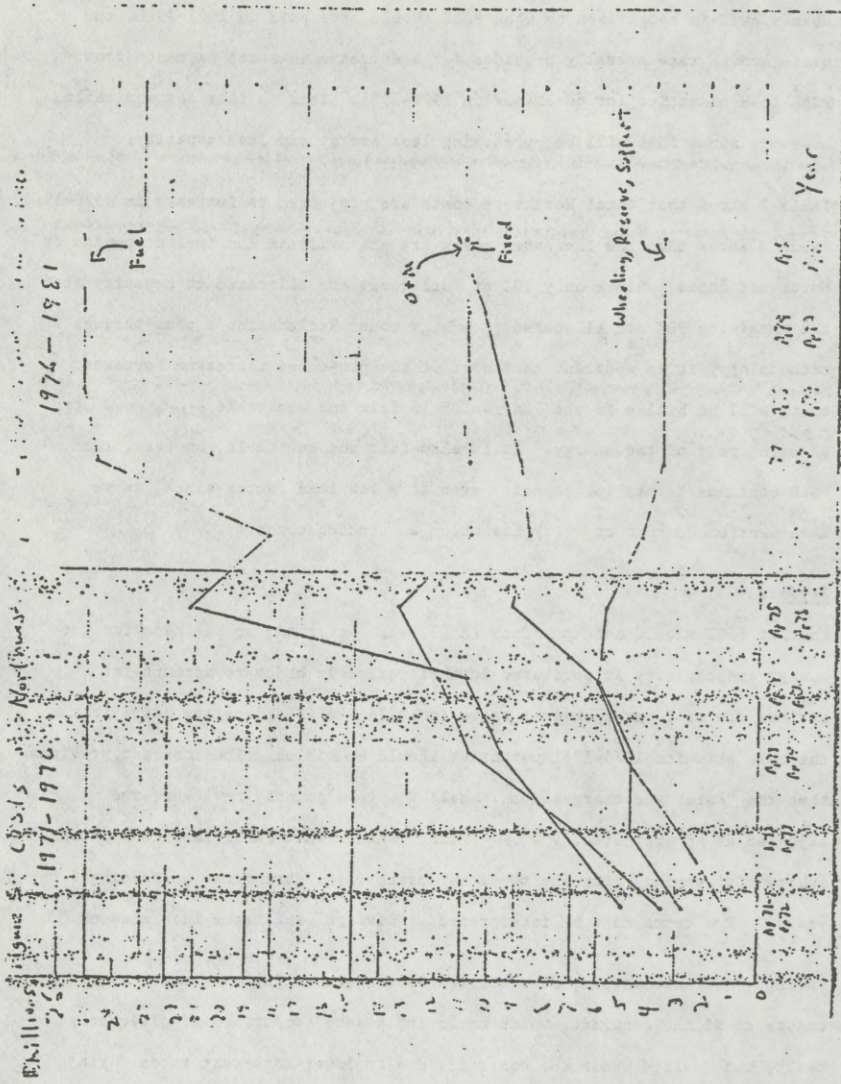
the remaining 90% are allocated to energy under Reclamation's pass-through methodology, it is apparent that most of the projected increased Northwest costs will be billed to the PCs, which is fair and equitable since they will be using most of the energy. It is also fair and equitable, however, that

PG&E continue to pay for capacity even at a low load factor since, as we have mentioned, such capacity has value as peaking capacity.

Savings

Whether PG&E should make payments in 1976-1981 over and above those for the energy and capacity it purchases in that period in order to account for savings due to lower-than-cost rates in 1971-1976 is a separate issue from the rate at which 1976-1981 purchases should be billed. The contract provides that the "Rates and charges . . . shall . . . be jointly reviewed, and - adjusted as appropriate . . ." and that "such review shall take into account substantial savings accruing to either party . . . during the preceeding five years." Two terms must be interpreted. "Savings" and "take into account."

Savings, in this context, does not mean savings accruing by virtue of the existence of the contract, which would imply some comparison of alternative costs, but savings under the contract, due to lower-than-cost rates during



1971-1976. This must have been the intention of the parties at the time of execution because alternative costs, especially when the value of the interest is included, are impossible to accurately estimate. Witness the disagreements between PG&E and the PCs in this regard.

"Take into account" does not mean that the savings are to be used as one factor in making a decision based on some unspecified concept of fairness and equity.

This is a strained interpretation of the contract. It is hard to imagine that the parties intended to establish a five year rate which, if in error, could never be rectified. The most reasonable interpretation of this provision is that it was intended to allow such rectification. Given this interpretation, "take into account" means that payments by PG&E in 1976-1981 should be higher,

by whatever amount PG&E underpaid in 1971-1976. These savings have been variously estimated at 50-75 million dollars. Our own estimate, based on incomplete data, is that the savings are 66 million dollars. On this basis, estimated payments by PG&E in 1976-1981 would be as shown in the last column of Table 2, labeled "Pass-Through Plus Savings". We suggest that savings be more accurately calculated if our recommendation is adopted.

One of the arguments which has been given for not including these savings in the new rates is that Reclamation and its PCs are also "savings" since they anticipate enjoying lower than alternative costs for the energy they will withdraw from PG&E's Energy Account #1, for which the rate is fixed in the contract at 2.8 mills/kwh. This is no excuse, however, for not holding PG&E to its contract, since the charges for withdrawals from Energy Account #1, as well as the inclusion of savings during 1971-1976 in the 1976-1981 charges, are both part of the package PG&E agreed to, presumably in an effort to further its own interests.

It could also be argued, since under the "no deficit" provision of the Reclamation law, the PCs will eventually end up bearing the cost of any present increase in charges to PG&E in the form of higher future charges

for energy withdrawn from Energy Account #2, that it makes no difference whether PG&E is billed for the 66 million dollars in savings or not. Following this argument to its logical conclusion, it could make no difference whether

PG&E pays anything at all for the Northwest Imports it buys, since eventually any charges to PG&E will be repaid in the future by the PCs. It is obvious that the parties to the contract did not adopt such a scheme because they saw some benefit in having PG&E pay the costs of Northwest Imports as it used them and having the PCs repay PG&E these costs as they used the power.

Although it is impossible to know for certain which benefits the parties had in mind, we can think of at least three reasons why the pay-as-you-go scheme might have been adopted: 1) the cash flow corresponds with the power flow, 2) present retail customers pay for the present use of power, and 3) retail rates more accurately reflect the actual costs of power, so the retail customer is not induced to use too much or too little power. We recommend that PG&E be billed in 1976-1981 for the savings it realized in 1971-1976, not only to fulfill the agreement made by PG&E and Reclamation, but because the reasons on which the agreement was probably based are sound.

Aside from the proper rate, which we have discussed, there may be some interest in charging a lower than proper rate in order to avoid an appeal to the Federal Power Commission. We recommend against such a course, because: 1) the costs of an appeal are negligible to Reclamation compared to the revenues at stake, 2) the ability of Reclamation to hold contractors to their contracts in the future will be weakened, and 3) the decision will probably be appealed in any case.

Mr. FRIZZELL. Does it say Pacific Gas & Electric Co., staff analysis?

Mr. GREENE. Yes.

Mr. FRIZZELL. I have it.

Mr. GREENE. It is marked in the upper righthand corner July 22, 1976.

Mr. FRIZZELL. All right.

Mr. GREENE. If you will turn to page 8.

Mr. FRIZZELL. Page numbers are not even legible. You say page 8?

Mr. GREENE. Yes.

Mr. FRIZZELL. Yes; I do have it now. I believe it is the next to the last page.

Mr. GREENE. That is right, Mr. Frizzell. You will notice that in the penultimate line, first paragraph, they suggest what was referred to then as the passthrough plus savings rate. Is that correct?

Mr. FRIZZELL. I recall that as being the recommendation at that time.

Mr. GREENE. Could you describe for us what the passthrough plus savings rate would have been?

Mr. FRIZZELL. In an abbreviated version, to the best of my recollection, Mr. Greene, it would, in fact, have been the passthrough rate which we have discussed here this morning plus a rate that would have "recouped," approximately—

Mr. GREENE. A \$70 million or so loss from the previous period.

Mr. FRIZZELL. During 1971-76 timeframe. However, as you know, they later came off that position. This was at a later time upon further reevaluation.

Mr. GREENE. We will be getting to that.

Mr. FRIZZELL. All right.

Mr. GREENE. Document O in your packet briefly suggests—it is on Department of the Interior stationery.

[Document O, referred to, follows:]

DOCUMENT O

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON, D.C., 20240

August 10, 1976

Memorandum

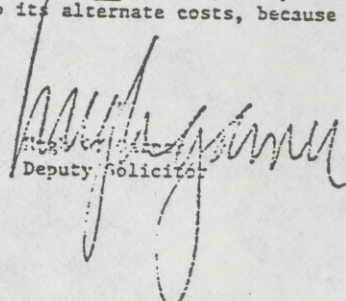
To: Deputy Under Secretary
From: Deputy Solicitor

Subject: Pacific Gas and Electric (PG&E) Rate Determination
Your memorandum of August 4th requested our interpretation of Article 32 of the PG&E contract in view of Program Development and Budget's assertion that the only factor to consider under the "fair and equitable" test is the Department's costs.

We think that PDB's view is improperly restrictive, and that it is appropriate to consider PG&E's alternate costs as well. The operative language in Article 32 can be expressed as follows:

"Rates and charges under this contract shall be fair and equitable [taking] into account substantial savings accruing to either party and applicable costs of construction and production."

Had the parties intended to provide only that rates should be based on the "applicable costs of construction and production", it would not have been necessary to include the provision that the rates be "fair and equitable" and the reference to "substantial savings." Consideration of PG&E's alternate costs is fairly implied by both terms. Thus, in considering fairness and equity between two parties, it is appropriate to consider the position of both parties, not just one; and the savings to PG&E logically can be determined only by reference to its alternate costs, because this is what it saves.


Deputy Solicitor

Mr. GREENE. It is a memo from the Deputy Solicitor to the Deputy Under Secretary. Basically it suggests the PDB analysis might have been somewhat restrictive and one should look, at least in part, toward alternate costs. Is that correct?

Mr. FRIZZELL. Yes.

Mr. GREENE. Turning to Document P——

[Document P, referred to, follows:]

DOCUMENT P

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

Memorandum

August 25, 1976

Assistant Secretary, Land and Water Resources
Assistant Secretary, Program Development and Budget
Solicitor
Commissioner, Bureau of Reclamation

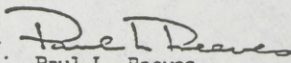
From: Executive Secretary

Subject: Decision Process for Pacific Gas and Electric
(PG&E) Rate Determination

The Department has analyzed factors related to a rate determination for PG&E under Contract No. 14-06-200-2948a with the Bureau of Reclamation. Each of your offices has played an important role in the analysis.

Attached is a document that identifies the two viable rate determination options, principal arguments in their favor and the price implications of each option. Also attached are memoranda that provide a key legal interpretation of the contract.

In order to permit the Under Secretary to know which option you recommend please indicate in a memorandum to Deputy Under Secretary Lyons the option you recommend with a succinct statement describing the rationale for your position. This memorandum with copies to the Executive Secretary should be provided to Deputy Under Secretary Lyons by close of business August 30, 1976.


Paul L. Reeves

Enclosures

Assistant Secretary, Energy and Minerals
Assistant Secretary, Management
Special Assistant for Consumer Affairs (AM)
Assistant Secretary, Fish and Wildlife and Parks
Director, Office of Communications

Mr. FRIZZELL. I have it.

Mr. GREENE. This is a document from the Executive Secretary, presumably on behalf of the Secretary of the Interior, to four persons—the Assistant Secretary for Land and Water Resources; Assistant Secretary for Program Development and Budget; the Solicitor; a Commissioner for the Bureau of Reclamation. Is that correct?

Mr. FRIZZELL. Yes.

Mr. GREENE. In the first full paragraph, last sentence, it states, "Each of your officers has played an important role in the analysis." Is that a correct quotation?

Mr. FRIZZELL. Where are you reading now?

Mr. GREENE. Last sentence, first paragraph.

Mr. FRIZZELL. Yes.

Mr. GREENE. Then the first sentence of the last paragraph states, "In order to permit the Under Secretary to know which option to recommend, please indicate in a memorandum," and so on. Is that correct?

Mr. FRIZZELL. That is correct.

Mr. GREENE. This group represented the reservoirs of expertises inside the agency for those rates. Is that correct?

Mr. FRIZZELL. I am sorry. I was writing when I should have been listening.

Mr. GREENE. Those individuals, those four individuals named earlier, would not be the responsible parties in the Department of the Interior at that time for setting rates. Is that correct?

Mr. FRIZZELL. Indeed.

Mr. GREENE. Let us now bring together four documents. Pick up Document C [see p. 10] from your previously used papers.

Mr. FRIZZELL. Yes.

Mr. GREENE. Document R.

Mr. FRIZZELL. All right.

Mr. GREENE. Document S, which is from the Assistant Secretary of Land and Water Resources to Deputy Under Secretary Lyons.

Mr. FRIZZELL. I have all three.

Mr. GREENE. And Document T.

[Documents R, S, and T, referred to, follow:]

DOCUMENT R

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

AUG 31 1976

Memorandum

To: Deputy Under Secretary

Through: Executive Secretary

From: Assistant Secretary-Program Development and Budget

Subject: Recommendations for rate to be charged Pacific Gas and Electric (PG&E) Company under Contract No. 14-06-200-2948a

As requested in the Executive Secretary's memorandum of August 25, 1976, we have reviewed the two rate determination options (The split-rate and pass-through rate) presented by Assistant Secretary-Land and Water Resources. I recommend that PG&E be charged the pass-through rate.

The pass-through option provides for rates based on the actual per unit costs of northwest capacity and energy that PG&E is expected to receive. The only other option presented by Assistant Secretary-Land and Water Resources, the split-rate, is lower than the pass-through rate because it is based partly on low cost hydro-electric power rather than the actual costs of northwest capacity and energy. The split-rate implies that PG&E should only be charged for capacity in proportion to the energy it receives.

I believe the pass-through option should be adopted because:

- 1) Capacity has significant value to PG&E even at very low load factors. It improves their peaking reserve and total system reliability. Furthermore, it is not uncommon for utilities to build capacity which is used very infrequently (i.e., at low load factors).
- 2) Under the contract, PG&E received free interconnection to the Pacific Northwest-Southwest Intertie to further improve system reliability, access to low cost northwest power, and an agreement from Reclamation to buy back power from PG&E when PG&E is expected to have surplus nuclear energy. The split-rate ignores the value to PG&E of any of these services.
- 3) PG&E has already received lower-than-costs rates between 1971-1976. Although the preference customers, under the "no deficit" provision of the reclamation law, will eventually bear the cost of any present increase in rates to PG&E, these higher rates (pass-through option) should be adopted. The pass-through rate will allow the cash flow to correspond more closely with the power flow, and rates (and therefore power use) will more accurately reflect the actual costs of power to the customers currently consuming it.

Ronald M. Coleman

DOCUMENT S

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

AUG 31 1976

Memorandum

To: Deputy Under Secretary Lyons
From: Assistant Secretary - *Jack Horton* Land and Water Resources
Subject: Power Rate Determination--PG&E Contract No. 14-06-200-2914A

The Executive Secretary has requested that we advise you of our recommendation on the two options contained in our memorandum dated August 25, 1976.

We recognize that the value of northwest capacity which PG&E purchases is related to the amount of energy that accompanies that capacity. However, when the benefits that have accrued to both parties as a result of the contract are considered, the "pass-through" option is more appropriate, and I recommend that you select the "pass-through" rate.

DOCUMENT T

United States Department of the Interior

OFFICE OF THE SOLICITOR
WASHINGTON, D.C. 20540

SEP 1 1976

Memorandum

To: Deputy Under Secretary

From: Solicitor

Subject: Decision Process for Pacific Gas and Electric (PG&E)
Rate Determination, Central Valley Project

In response to the Executive Secretary's memorandum of August 25, 1976, on referenced subject, we recommend that the Under Secretary decide in favor of the passthrough rate on the grounds that it is fully supported on the record in this proceeding and is the only rate that can be supported on the record.

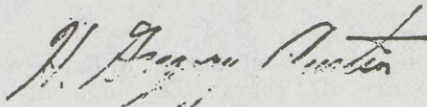
The public record in this proceeding consists of the NCPA brief and engineering studies of January 19, 1976; the Assistant Secretary's February 29, 1976, statement setting forth the proposed position; the comments received thereon from PG&E, NCPA, the Federal agencies, the California PUC, Arvin-Edison, CVPD, and NASA; the transcripts of the meetings in Sacramento on April 26th and in San Francisco on May 14th discussing the split rate; and the comments on the split rate submitted by PG&E's letter of May 5th, NCPA's letter of May 24th (corrected), the Federal agencies' statement of May 25th, and PG&E's letter of June 25th. 1/

The standard by which the decision is to be made is the operative thought in Article 32 of the contract, which, as stated in our memorandum of August 18, can be expressed as follows:

1/ NCPA's rebuttal of July 14 to the PG&E letter does not add anything useful and may be disregarded.

"Rates and charges under this contract shall be fair and equitable [taking] into account substantial savings accruing to either party and applicable costs of construction and production."

If the only provision in Article 32 was that the rate should be "fair and equitable" for the next five years, then there would be some merit to PG&E's argument that the passthrough rate is too high because it receives a low, varying and unreliable quantity of energy with each kilowatt of firm capacity that it is required to purchase under the contract. However, by PG&E's own calculations, this fact is more than offset by the "substantial savings" that accrued to it in the 1972-76 period. The figures in PG&E's June 25 letter show that its total savings over the nine-year 1972-80 period would be such that it would pay only about 60% of its alternative cost, whereas the preference customers would be required to pay 2/ about 84% of their alternative costs. Thus, when past savings are taken into consideration, as required by Article 32, using the company's figures, the passthrough rate favors the company and discriminates against the preference customers.


Solicitor

cc: Assistant Secretary, Land and Water Resources
Assistant Secretary, Program Development and Budget
Commissioner of Reclamation
Solicitor's Reading File
RKPelz
DER SOL
DER Reading File
DER WP File
DER WP Reading
Power

Pocket

2/ Assuming that the preference customers have to absorb all Centralia costs not picked up by PG&E.

Mr. FRIZZELL. I have it.

Mr. GREENE. These memoranda represent the collective judgment of those who had the responsibility for setting rates in the Interior Department, as you previously testified.

Mr. FRIZZELL. The last part of your statement again.

Mr. GREENE. These individuals are in fact those who had principal responsibilities for the setting of rates in the Department of the Interior as you already testified. Is that correct?

Mr. FRIZZELL. I can't agree that all of these individuals have primary and major responsibilities with regard to setting of rates in the Department of the Interior. Most of them did.

For instance, the Assistant Secretary for Program Development and Budget would not normally be in the line of authority for a decision of this kind.

I did refer the matter asking his judgment.

Mr. GREENE. The Assistant Secretary had been incorporated into the process——

Mr. FRIZZELL. Normally he is not.

Mr. GREENE. Let's go through these. First, dated August 30, 1976, from the Acting Commissioner of Reclamation, recommends the passthrough rate.

Mr. FRIZZELL. Correct.

Mr. GREENE. The second document, dated August 31, from the Assistant Secretary of Program Development and Budget, he recommends the passthrough rate. Is that correct?

Mr. FRIZZELL. And that is without the recouping of the \$70-some million.

Mr. GREENE. He does recommend, however, the passthrough rate.

Mr. FRIZZELL. Yes.

Mr. GREENE. The third document, also dated August 31, 1976, from the Assistant Secretary for Land and Water Resources, recommends the passthrough rate. Is that correct?

Mr. FRIZZELL. Correct.

Mr. GREENE. The fourth document from the Solicitor recommends the passthrough rate and states additionally, "The passthrough rate is the only rate that can be supported on the record." Is that correct?

Mr. FRIZZELL. That is what he states in that memorandum, but as you know it was superseded by a subsequent memorandum stating just the opposite.

Mr. GREENE. So we have in hand, Mr. Frizzell, a unanimous recommendation.

Mr. FRIZZELL. That is right, at that time.

Mr. GREENE. The passthrough rate is the way to go.

Mr. FRIZZELL. Yes.

Mr. GREENE. Turning to Document U.

[Document U, referred to, follows:]

OFFICE OF
UNDER SECRETARY

DOCUMENT U

UNITED STATES
DEPARTMENT OF THE INTERIOR
WASHINGTON

September 1, 1976

Memorandum

To : Under Secretary

From : Deputy Under Secretary

Subject: Pacific Gas and Electric (PG&E) Rate Determination

- Attachments:
- (1) Options Paper, dated August 25, 1976, prepared by the Assistant Secretary--Land and Water Resources
 - (2) Memorandum, dated August 25, 1976, from the Executive Secretary requesting recommendations on options and responses from:
 - (a) Assistant Secretary--Land and Water Resources
 - (b) Assistant Secretary--Program Development and Budget
 - (c) Solicitor
 - (d) Commissioner of Reclamation
 - (3) Memorandum, dated August 4, 1976, to the Deputy Solicitor, and memorandum, dated August 10, 1976, from the Deputy Solicitor, relative the above-noted subject

Reference: Contract with PG&E for the sale, interchange and transmission of electric capacity and energy, Department of the Interior, Bureau of Reclamation, Central Valley Project, California, Contract No. 14-06-200-2948a.

Your decision is sought on the determination of the rate to be charged to Pacific Gas and Electric (PG&E) under Contract No. 14-06-200-2948a with the Bureau of Reclamation.

The attached options paper describes the two options regarding the subject rate determination and concludes that the principal arguments have been made and further analysis is not necessary.

The two options are:

- Option 1: Pass-through rate. Under this option, PG&E pays for the capacity and energy at rates which reflect the actual costs of the relatively high cost thermal power from the Northwest.

Option 2: Split-rate. Under this option, PG&E pays a "split-rate" based partly on the pass-through costs of thermal power and partly on the project rate which predominantly consists of the low cost hydroelectric power.

The Deputy Solicitor has interpreted Article 32 of the PG&E/Reclamation contract as follows:

"Rates charged under this contract shall be fair and equitable /taking/ into account substantial savings accruing to either party and applicable costs of construction and production."

The Assistant Secretaries, Land and Water Resources and Program Development and Budget, the Solicitor, and the Commissioner of Reclamation recommend that you select Option 1--the pass-through rate.

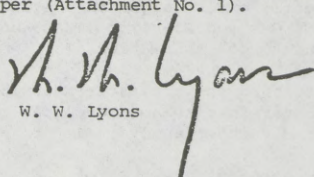
I believe that the test of "fair and equitable" under the terms of the contract can best be met by setting rates for northwest capacity and energy that reflect the alternative costs to PG&E of capacity and energy similar in amount and dependability to that which will be provided to PG&E over the next five years. The alternative costs concept requires that the rates we set for PG&E accurately reflect the value of northwest energy and capacity it receives. The rate, therefore, should appropriately account for capacity with energy at low-load factors on an undependable schedule. I would not provide special rate adjustments for savings inasmuch as substantial savings under the northwest power arrangement have accrued to both parties in amounts that appear to be approximately offsetting. In light of this, I recommend that you select Option 2--the split-rate.

The selected option will become effective retroactive to April 1, 1976. It will also become the basis for announcing the Central Valley Project (CUP) rate now scheduled to become effective in March 1977.

Under the two options, the approximate increase in rate to the CUP preference customers would be as follows:

Option 1 - 44%
Option 2 - 56%

Following your review of all relevant factors, would you please indicate your decision on page 3 of the options paper (Attachment No. 1).


W. W. Lyons

Enclosure

cc: Solicitor
Executive Assistant to the Secretary
Assistant Secretary--Land and Water Resources
Assistant Secretary--Program Development and Budget
Commissioner of Reclamation
Executive Secretary

Mr. FRIZZELL. Before we go on, might I make one short comment here on your last statement?

Mr. GREENE. You have answered my question. Let us go on to the next question.

Mr. FRIZZELL. All right. Now we are looking at Document Q?

Mr. MOSS. "U."

Mr. FRIZZELL. Very well.

I have it.

Mr. GREENE. Document U is a memorandum from Deputy Under Secretary Lyons, who was your deputy, as I understand it.

Mr. FRIZZELL. Correct.

Mr. FRIZZELL. Correct.

Mr. GREENE. Page 2. Mr. Lyons is the only one to recommend the split rate. Is that correct?

Mr. FRIZZELL. Correct.

Mr. GREENE. He does so in the second paragraph which appears on the second page on the basis of alternate costs. Is that correct?

Mr. FRIZZELL. He also adds a second criterion, a fair and equitable test.

Mr. GREENE. He is relying upon alternative costs to reach that judgment.

Mr. FRIZZELL. Yes.

Mr. GREENE. Am I correct in my understanding of this document that it does not include either the PDB analysis, the Bureau of Reclamation analysis, the Northern California Power Agency analysis with respect to alternative costs, or P.G. & E.'s analysis of alternative costs? Is that correct?

Mr. FRIZZELL. You mean the two-page memorandum from my Deputy does not contain——

Mr. GREENE. Does not reference any specific information with respect to alternative costs which had been developed previously. Is that correct?

Mr. FRIZZELL. I would have to read the whole thing. If you say it does not reference it, I take your word for it.

Mr. GREENE. All right, Mr. Frizzell.

Turning Document V, this is a memorandum from you to the Solicitor. Is that correct?

[Document V, referred to, follows:]

Mr. FRIZZELL. Dated September 8, 1976?

Mr. GREENE. Yes.

Mr. FRIZZELL. "V" as in Victor? I have it.

Mr. GREENE. Essentially, as I understand this document, you are asking the Solicitor to reconsider his opinion of September 1 and give you the opportunity, at least the go-ahead, with respect to a statement from him that both options, the split rate and passthrough options, were allowed on the basis of the record then available to the Department. Is that correct?

Mr. FRIZZELL. Partially but not completely accurate. What I was also expressing was my disdain for what was stated at a meeting of all of the parties in the Department of the Interior when we were discussing possible decisions on the options, and when a representative of the Solicitor's office—the Solicitor not being there—indicated, as was also indicated in one of the communications we have looked at here today, that the record supported only one decision, the pass-through rate. Then I became very angry and said, "Then why are you taking my time if I don't have a decision? If there is only one decision, why bring it up to me?"

I resented that the Solicitor had represented that I had a decision and an option to make, and then said, "On the record you can pull only one leg. You can go only one way." That is not decisionmaking. I dismissed the meeting and said, "Don't come back on another one like this because you are not welcome."

Then I got the clarification memo from the Solicitor saying that his subordinate was wrong when he represented that only one option was legally sufficient by the record.

Mr. GREENE. But you did ask for a redetermination at that time?

Mr. FRIZZELL. Yes.

Mr. GREENE. In fact, you were somewhat disturbed at the fact that your legal counsel said that you would be acting illegally if you went with the passthrough rate. Is that right?

Mr. FRIZZELL. He didn't say that. He said, "You can go only one way."

Mr. GREENE. You can go only one way. Presumably that means you cannot go the other way. Is that correct?

Mr. FRIZZELL. That is the way I interpreted it, just like you did, Mr. Greene. I couldn't understand what the exercise we had been going through for the last 6 months was all about then.

Mr. Moss. Mr. Frizzell, the Chair has tried to be, and I think those who have attended hearings I have conducted over the years will tell you that I have been, unusually considerate of you. You have abused every opportunity this committee has afforded you.

I am going to insist that you answer only the questions put to you and do it as concisely as possible.

I am not accustomed to the kind of show you are attempting to put on here today. I am cautioning you not to continue it.

I am not interested in long discourses in response to questions which are not asked.

Mr. FRIZZELL. I respectfully disagree, Mr. Chairman.

Mr. Moss. I don't give a dam whether or not you disagree. You will, however, obey the admonition of the Chair.

Mr. GREENE. Mr. Frizzell, let's go ahead fairly quickly. [NOTE.—In order to expedite the hearing, Document W was not introduced into the record.]

Turning to Document X, a document dated September 28—

Mr. FRIZZELL. "X"?

Mr. GREENE. Yes.

[Document X, referred to, follows:]

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON, D.C. 20240

DOCUMENT X

SEP 28 1976
OFFICE OF THE
UNDER SECRETARY

Memorandum

SEP 28 1976

To: Under Secretary
From: Solicitor
Subject: Pacific Gas & Electric (PG&E) Rate
Determination

I am writing in response to your memorandum of September 8, 1976, referencing the above matter and asking from a legal standpoint if both the pass-through and the split rate can be supported by the record.

We have reviewed the file again, with representatives of the Assistant Secretary, Land & Water Resources, and the Bureau of Reclamation and are of the opinion that from a legal point of view, both the pass-through and the split rate can be supported on the record in this proceeding. Both rates are discussed at length in the record. However, as you are aware, the record does reflect the strong feeling of some Departmental officials in favor of the pass-through rate, and accordingly, there is significantly more discussion of the pass-through rate rather than the split rate in the record.

Please advise if we can be of further assistance in this matter.

H. Gregory Austin

Mr. GREENE. It is on Department of the Interior stationery from the Solicitor to the Under Secretary. It should be a one-page document.

Mr. FRIZZELL. I have it.

Mr. GREENE. With this document the legal roadblock represented by the previous Solicitor's opinion is lifted. The Solicitor here says you can go either way. Is that correct?

Mr. FRIZZELL. Yes. It states the split rate can be supported by the record and both the passthrough and split rate can be supported.

Mr. GREENE. With that out of the way—by the way, the gentleman you referred to as having originally rendered the legal opinion with respect to your having only one legal option, who was that person?

Mr. FRIZZELL. Mr. Pelz. I think his title was Assistant Solicitor.

Mr. GREENE. To your knowledge did Mr. Pelz write this second opinion?

Mr. FRIZZELL. I have no idea. It is signed by Mr. Austin, the Solicitor. his boss.

Mr. GREENE. Finally, Mr. Frizzell, turn to Document Y.

[Document Y, referred to, follows:]

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

DOCUMENT Y

AUG 25 1976

Memorandum

To: Under Secretary

Deputy

From: Assistant Secretary—Land and Water Resources

Subject: PG&E Rate Determination—Contract No. 14-06-200-2948a

We have thoroughly reviewed the factors behind the proposed decision announced February 20, 1976, listened to the subsequent arguments presented by the preference customers and PG&E concerning the proposed rate determination, read recent letters following a meeting with both PG&E and the preference customers, and considered internal memoranda from PDB and the Deputy Solicitor. We believe that the principal arguments regarding the rate determination issue have been made and that further analysis is not necessary.

We suggest that this memorandum become the decision document for a secretarial decision on either the "pass-through" or the "split-rate" options previously presented. The decision must be based on the record consisting of all options and the considerations and documents mentioned above. The two viable options are summarized in this memorandum.

Two considerations are paramount to this rate setting and have been analyzed and reflected in the two options; i.e., (1) whether the rate charged for capacity should be based on average unit costs or value reflecting less than proportional amounts of energy and (2) how to account for "savings" that have accrued to the PG&E and to preference customers in setting the rate to PG&E.

Option "Pass-Through"

Under this option PG&E pays for the capacity and energy at rates which reflect the actual costs of the relatively high cost thermal power from the northwest. (This would not include the costs of transmission capacity from the Oregon border to the Tracy substation.) Estimated rates: Capacity of \$4.38/kw/mo; energy 9.925 mills/kwh with a 60-month revenue of \$32 million.

The principal arguments for this option are:

The pass-through rate is based on the actual per unit costs of northwest capacity and energy that PG&E is expected to receive. The pass-through rate is consistent with a cost-of-service approach to rate setting, the traditional way rates are determined.

The increase in rates to PG&E entailed in this option is "fair and equitable" considering the savings (\$65-\$74 million) that PG&E and its customers enjoyed over the last 4 years.

Option "Split-Rate"

Under this option PG&E pays a "split-rate" based partly on the pass-through costs of thermal power and partly on the project rate which predominantly consists of the low cost hydroelectric power. Quantities of capacity which can be associated with energy at 60 percent load factor and all energy from Centralia would be sold at the pass-through rates. The remaining capacity would be sold at the project rate. Estimated rates: Average capacity \$2.60/kw/mo; energy 9.925 mills/kwh; with a 60-month revenue of \$56 million.

The principal argument for this option is:

The value of northwest capacity that PG&E purchases is related to the amount of energy that accompanies that capacity. Since PG&E will receive energy at an average load factor of about 20 percent as opposed to their system load factor of about 60 percent the value of the capacity that PG&E will receive under the contract should be sold at a lesser price than that purchased with a high capacity factor. The rates to PG&E entailed in this option are "fair and equitable" because they are approximately consistent with what PG&E would have been willing to pay for comparable power from alternative sources.

We propose that both options will permit PG&E to select whether they want one fixed rate for the contract period or an annually adjusted rate based on the latest cost factors. The selected option will become effective retroactive to April 1, 1976. It will also become the basis for announcing the proposed CVP rate now scheduled to become effective in March 1977.

Under the two alternatives the approximate final wholesale rates chargeable to the preference customers would be as follows:

	<u>Pass-through</u>	<u>Split-rate</u>
Energy	4.2 mills/kwh	4.4 mills/kwh
Capacity - avg.	1.70/kw/mo	1.75/kw/mo
Increase	44%	56%

By copy of this memorandum we are notifying the Special Assistant for Consumer Affairs that the short-range effect of the two options on the California consumers approximate the following increases in cost:

	<u>PG&E consumers (8 million)</u>	<u>Preference consumers (600 thousand)*</u>
Split-rate option	1.5%	8 to 19%
Pass-through option	3 %	7 to 16%

Following your decision you will be presented with a formal "final rate determination" for signature based on the option selected.

Secretarial Decision

Pass-through option

Split-rate option ✓ *Kenn. Duggell*

*The percentage varies depending on the amount of the WP power allocation to the wholesale customer.

Approval _____

Date November 9, 1976

cc: PDB (Burke)

Solicitor (Garnett)

Exec Sec

✓ Deputy Under Secretary

Ass't to the Secretary for
Consumer Affairs

Mr. GREENE. It is from the Assistant Secretary, Land and Water Resources, to you as the Under Secretary. This is a so-called decision document.

If you will turn to the last page, with a checkmark you go with the split rate option and did so apparently on November 9, 1976.

Mr. FRIZZELL. That is correct.

Mr. GREENE. And on December 14, as I understand it, you announced your final decision [Document Z] with respect to the split rate.

Mr. FRIZZELL. The Department announced it. I don't think I did personally.

Mr. GREENE. The last document I have is marked "AA." This begins with "U.S. Department of the Interior" at the top. It is a memorandum from the Director of Audit and Investigations to the Secretary. It is dated January 31, 1978, this year.

[Documents Z and AA, referred to, follows:]

DOCUMENT Z

DEPARTMENT OF THE INTERIOR
Office of the Secretary

DEC 14 1976

FINAL POSITION ON AN ADJUSTMENT
IN RATES TO THE PACIFIC GAS AND ELECTRIC COMPANY
FOR NORTHWEST CAPACITY AND ENERGY

The purpose of this statement is to announce the final decision regarding power rates to PG&E for capacity and energy imported from the Northwest under Contract No. 14-06-200-2948A, in connection with the Central Valley Project in California.

On February 20, 1976, the Assistant Secretary Land and Water Resources issued a statement setting forth our "Proposed Adjustment in Rates to the Pacific Gas and Electric Company for Northwest Capacity and Energy" under Contract No. 14-06-200-2948A, noting that comments would be received until March 24, 1976. This announced that the Department proposed to support a "pass-through" rate reflecting the actual cost of thermal power. The rate stated was initially to be \$4.28 per kilowatt month for capacity and 9.03 mills per kilowatthour for energy and was subject to annual adjustment.

I have examined the record regarding the February 20, 1976, proposed decision on PG&E power rates, reviewed both oral and written comments presented by the preference customers and PG&E, considered internal staff documents concerning the proposed rate adjustment, and have concluded that the "split" rate is the appropriate rate for PG&E to pay for Northwest power.

The initial charge for April through December 1976 for capacity with energy will now be \$4.12 per kilowatt month and 7.70 mills per kilowatthour for energy. These rates which are different from those shown in our February 20, 1976 announcement are based on more recent cost data. The charge for capacity without energy would be the Central Valley Project rate for capacity.

The method of determining the charges to PG&E for this rate is shown in Exhibit A.

Under this rate PG&E will be charged the "pass-through" or-cost-of service rate for energy actually received but will pay the pass-through capacity charge for only that portion of capacity associated with energy at a 60 percent load factor. The balance of the Northwest capacity delivered to PG&E will be charged at the Central Valley Project rate.

The value of Northwest capacity that PG&E purchases is directly related to the amount of energy that accompanies that capacity. Since PG&E is expected to receive Northwest power at an annual load factor decreasing from about 35 percent during 1976 to 12 percent during 1980, as opposed to their system load factor of about 60 percent, the value of the capacity that PG&E will receive under the contract will be less. Therefore, the capacity sold to PG&E should be sold at a lesser price than that purchased with a high capacity factor.

The preference customers contended in support of the imposition of full "pass-through" rate that the cost to PG&E of alternative sources of generation was considerably more expensive than Northwest power. Alternative costs are, in the view of the Department's Solicitor, an appropriate consideration in the determination of "fair and equitable" rates under Article 32 of the Contract.

Data developed by the Department indicate that the average cost of capacity under the "split" rate would be somewhat above the cost of 20 percent load factor peaking facility and somewhat below the cost of a base load facility operated at 80 percent load factor which the company presumably would have built in lieu of the purchase of Northwest imports.

Analyses prepared by the Department indicate that the appropriate alternative would be either an oil fired baseload plant with an 80 percent load factor or a peaking plant with a 20 percent load factor. The baseload alternative would cost the company approximately 25 mills per kilowatthour for power while the peaking alternative would approach 44 mills per kilowatthour. The "split" rate

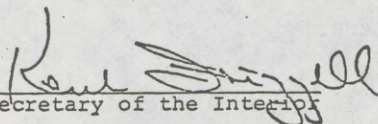
as developed by the Department at 20 percent load factor would cost PG&E approximately 27 mills per kilowatthour, slightly more than the baseload alternative.

Moreover, the weight of the evidence supports the "split" rate, in that there can be no guarantee that energy accompanying Northwest power will actually be available to PG&E at any load factor. Since there can be no guarantee of any Northwest energy, it is reasonable that it cost less than firm power available to PG&E.

Over the next five years preference customers demands for power are anticipated to be such that the amount of energy sold to PG&E will decrease annually at a much greater rate than the decrease in capacity sold to PG&E. It would therefore be unfair and inequitable to require PG&E and its customers to pay a high baseload rate with no assurance that the company could purchase high quality baseload energy. While the "split" rate accords no assurance that baseload energy will be supplied from Northwest sources to the company, it does assure that the costs which the company incurs and passes through to its customers will more truly reflect the value of energy actually delivered to the company for its use.

The Department of the Interior has determined that this document does not contain a major proposal requiring preparation of an Inflation Impact Statement under Executive Order 11821 and OMB Circular A-107.

Under


Secretary of the Interior

Date

12-14-76

Exhibit A

Rate for Northwest Power Under
Article 22.(b) (2) after April 1, 1976

PG and E would be charged for Northwest power sold to it by the USBR after April 1, 1976, as follows:

(i) For capacity and energy from the Northwest:

(A) Capacity with Energy - For the Northwest capacity accompanied by energy, PG and E will pay the Bureau the cost of Northwest capacity as determined by Exhibit B. The amount of capacity paid for at this rate, in any month, shall be that amount of capacity, not to exceed Contract Dependable Capacity, accompanied by energy at 60 percent load factor.

(B) Capacity without Energy - For any remaining capacity not purchased under (A), PG and E will pay the CVP (Project) capacity rate, provided that the total amount of capacity purchased under A) and B) shall not exceed Contract Dependable Capacity.

(C) Energy - PG and E will pay for Northwest energy at rates as determined by Exhibit B.

Exhibit B

METHODOLOGY FOR CALCULATING CAPACITY AND ENERGY CHARGES
FOR NORTHWEST POWER SOLD TO PACIFIC GAS AND ELECTRIC
COMPANY

The annual cost of capacity will be calculated as the sum of:

- a. 100 percent of annual fixed cost of the Centralia facilities.
- b. 65 percent of the annual O&M cost of the Centralia facilities.
- c. 10 percent of the annual fuel cost for the Centralia facilities.
- d. That part of wheeling and capacity reserve annual cost paid to BPA proportional to the capacity component of the total capacity and energy cost of Centralia.

The monthly capacity charge per kilowatt will be the total annual cost for Northwest capacity divided by 12 and then by 382,000 kilowatts, the Northwest capacity delivered to the CVP load center at Tracy.

The annual cost of energy, up to 7,050 kWh/kW/year, will be calculated as the sum of:

- a. 35 percent of the annual O&M cost of the Centralia facilities.
- b. 90 percent of the annual fuel cost of the Centralia facilities.
- c. That part of the wheeling and capacity reserve annual cost paid to BPA proportional to the energy component of the total capacity and energy cost of Centralia.
- d. Estimated annual energy support purchased from the Northwest.

The energy charge per kilowatthour will be the total energy cost divided by the Northwest energy delivered to the CVP load center at Tracy.

Not later than October 1 of each year, Reclamation will prepare and furnish to PG&E estimated energy and capacity

Exhibit B

charges for Northwest power determined on this basis. These charges will apply to sales to PG&E during the following year. Annually, during January, the billing to PG&E for the previous year will be adjusted, as necessary, based on actual billing of Northwest power cost to CVP.

The rate for Northwest energy in excess of 7,050 kWh/kW/yr will be determined by the cost as purchased from the Northwest and adjusted upward for losses to the CVP load center at Tracy.

DOCUMENT AA



United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

January 31, 1978

Memorandum

To: The Secretary

From: Director of Audit and Investigation

Subject: Report on Audit of the Central Valley Project, Bureau of Reclamation (LBR)

The enclosed report responds to your request of May 19, 1977 for a review of financial aspects of the Central Valley Project (CVP), and to part of the President's recommendation on the Auburn Project and the CVP power account in his April 18, 1977 Statement on Water Projects. The review disclosed that revenue and repayment prospects for all reimbursable functions of the CVP are in serious financial trouble now and for the foreseeable future absent changes in basic operating policies, contracts, and possibly governing laws as well. This is the cumulative result of many years and it is shown in the report that LBR, the Department, and the Congress must share responsibility for the situation.

We found that there is considerable elasticity between the current and proposed power rates and the actual value of power. Similarly, water is worth more than is being charged. Thus, the potential for overcoming the deficit situation exists. Also, should the Auburn Dam project proceed, the added investment and costs could be recovered through higher but still competitive rates.

The constraint has been the failure to develop valid power rate increase proposals which withstand challenges, and to establish terms in long-term power and water sales contracts which provide needed flexibility to recover cost increases. CVP is required by law to sell power at the lowest possible prices consistent with sound business principles. We believe that the audit results show that the "sound business principles" portion of the Law has not been sufficiently considered. In our opinion, this is the primary cause of the deteriorating financial situation.

The report identifies a number of recommended actions for improving the financial outlook for the power function. This audit was undertaken

before creation of the Department of Energy, but recommendations relating to the power function require the attention of Interior and the Department of Energy.

We are recommending action by Interior to facilitate the recovery of costs of the (i) municipal and industrial and (ii) irrigation water functions. Also, included is an analysis of the financial impacts of completing the Auburn Dam. Further, the report sets forth our opinion on CVP's statement of income and expenses for the 15 month period ended September 30, 1976.

A. L. Reynolds

Enclosures

cc: Department of Energy

The PG&E contract thus provides CVP with an outlet for power purchased from the Northwest in excess of its immediate customer needs. And so a power purchase contract was entered into with the owners of the Centralia coal fired thermal plant in the Pacific Northwest on December 26, 1967. Under contract arrangements covering 1972 through 1981, CVP would have to purchase annually 382 MW of capacity and 2,693 GWh of energy.

The effect of these arrangements, at the time these contracts were negotiated in 1967, was that on the one hand, CVP agreed to buy power at rates predicated upon the power supplier's (PG&E and Centralia) costs at the time of purchase by CVP; while on the other hand, when CVP became the power supplier it agreed to sell power at rates which were based upon a fixed rate rather than costs at the time of sale. The PG&E contract provided some relief from this situation in that rates it would pay CVP for power could be adjusted at 5 year intervals, beginning in 1971.

We recognize that the magnitude of increases in purchased power costs after 1971 could not have been anticipated by CVP. However, it appears that both PG&E and Centralia were concerned about recovering their costs and provided in the contracts that power rates would be based upon costs at the time of sale. In 1971, when the PG&E contract provisions covering rates could be adjusted, CVP had the opportunity to provide similar protection by taking into consideration cost recovery of brokered power.

In our opinion, when CVP acts in the capacity of a power broker we see little need for the project to assume any risks associated with the brokering transactions. As a result of not passing on to its customers the risks of cost increases involved in the acquisition and sale of power, CVP purchased power from Centralia, between January 1972 and March 1976, at a cost of \$106 million and sold it at a price of \$33 million, or a loss of \$73 million.

In 1976 the rate to PG&E for Centralia power was increased, but was not adequate to cover that portion of the Centralia power sold to PG&E. The Commissioner indicated that LBR recommended fully compensatory rates but it was a Departmental decision to charge PG&E a lower rate.

In response to the issue of purchasing power for preference customers above a project's hydroelectric generation ability, the Acting Commissioner of Reclamation stated the following in April 1973:

"The basic marketing policy of Reclamation has been to market power from its projects under two set conditions; (a) limit contracts for firm capacity (kw) to that hydroelectric capacity available during an adverse or critical water year, and (b) limit contracts for firm energy (kw-hr) to that hydroelectric energy available during an average water year. . . . There have been two main exceptions to this policy; (a) the Central Valley Project where Congress directed that thermal energy be purchased for certain preference customers whose contracts expire in 2004, and (b)

Historically, when Reclamation initiated a power marketing program for a project, there was surplus power above the preference customers requests and it took some time before the preference customers could use all the hydroelectric power generated. Now Reclamation power has all been used or will be used by preference customers in the near future.

Mr. FRIZZELL. What exhibit are you calling that?

Mr. GREENE. That is "AA."

Mr. FRIZZELL. It was not marked, but I do have it. I have not seen it before.

Mr. GREENE. For your own background, Mr. Frizzell, this is an audit report of the Department of the Interior with respect to its own activities with respect to the Central Valley project?

If you will turn to the fourth page in, page 24——

Mr. FRIZZELL. Can you explain to me? The first two pages contain a memorandum, as you indicated.

Then the third and fourth pages are numbered——

Mr. MOSS. The last page, Mr. Frizzell.

Mr. FRIZZELL. I would like to ask what that document appended is. If that is a fair question.

Mr. GREENE. That document, for your background, is a document of many pages.

Mr. FRIZZELL. I can see that.

Mr. GREENE. I was prepared by the Department of the Interior audit team. It is an audit of the Central Valley project finances and various activities which have taken place in the CVP.

Mr. FRIZZELL. Why just two pages?

Mr. MOSS. Because that is all we need for our purpose. We will address our questions to those two pages.

Mr. FRIZZELL. Which page?

Mr. GREENE. The last page of the document.

Mr. FRIZZELL. All right; I have it.

Mr. GREENE. Mr. Frizzell, would you read the first two paragraphs of that document?

Mr. FRIZZELL [reading]:

In our opinion, when CVP acts in the capacity of a power broker, we see little need for the project to assume any risk associated with brokering transactions. As a result of not passing onto its customers the risks of cost increases involved in acquisition of sale of power, CVP purchased power from Centralia between January of 1972 and March of 1976 at a cost of \$106 million and sold it at a price of \$83 million, or a loss of \$73 million.

In 1976 the rate to the PG and E for Centralia power was increased but was not adequate to cover that portion of the Centralia power sold to PGandE. The Commissioner indicated that the Bureau of Reclamation recommended fully compensatory rates but it was a departmental decision to charge P.G. & E. a lower rate.

Mr. GREENE. Thank you.

Mr. Chairman, I have no further questions of this witness.

Mr. MOSS. Mr. Santini, have you any questions?

Mr. SANTINI. Yes, Mr. Chairman.

Mr. Frizzell, it would be helpful for at least this member if I were a bit better acquainted with your background.

I gather from the adroit manner in which you respond to questions that you are a lawyer by profession. Would that be true?

Mr. FRIZZELL. I have been accused of not responding too directly today but your conclusion that I am a lawyer is correct, yes.

Mr. SANTINI. And both judgments, I think, are supported. How long have you been a lawyer, Mr. Frizzell?

Mr. FRIZZELL. Since I graduated from law school in 1955.

Mr. SANTINI. And I am informed that you are also, as the result of a political transition in 1976, now engaged as a legal professor in Tulsa, Okla. Is that correct?

Mr. FRIZZELL. That is not correct.

Mr. SANTINI. Please advise me.

Mr. FRIZZELL. I accepted the position as a professor of law, director of the Energy Law and Policy Institute at the University of Tulsa, in April of 1976, win, lose, or draw in the November election of 1976. So it was not as a result of any political consequence in November that I am in Tulsa.

Mr. SANTINI. I commend you upon your new position and your foresight. It is true, however, you are a legal professor. Is that correct?

Mr. FRIZZELL. That is correct.

Mr. SANTINI. When did you first receive notice of the fact that the Oversight and Investigations Subcommittee was going to be examining the issue on which you are testifying this morning?

Mr. FRIZZELL. I believe, Mr. Santini, it was March 10, 1978; last month. You want me to go on? It was via a telephone call by Mr. Sims, one of the staff members.

Mr. SANTINI. Had you had occasion since your departure in April of 1976 to March of 1978 to examine or to consider any of the facts relative to this proposition?

Mr. FRIZZELL. Not ever. I was pleased to be able to forget them and leave Washington.

Mr. SANTINI. I can understand that, Mr. Frizzell.

And with regard to this particular issue, did you have occasion to discuss it with anyone from March 10 to April 28, 1978?

Mr. FRIZZELL. With many people.

Mr. SANTINI. Would you identify who those people were?

Mr. FRIZZELL. I shared with all of my colleagues at the University of Tulsa College of Law that I had been contacted by a staff member, and that I had indicated that I was unwilling to let him come out and spend a day talking to me and representing my point of view; that I would prefer to do so on the record at a public hearing.

He later called me back and indicated that I had my desire.

Then I indicated that I frankly did not have the time to go through the voluminous records—

Mr. SANTINI. We are getting away now. To whom did you talk?

Mr. FRIZZELL. Members of the faculty.

Mr. SANTINI. Members of the faculty.

Mr. FRIZZELL. I want to be accurate here, so I will try to reconstruct.

Mr. SANTINI. Certainly.

Mr. FRIZZELL. My wife.

Mr. SANTINI. Mrs. Frizzell?

Mr. FRIZZELL. Shirley.

My five children.

Mr. SANTINI. All five children sat down and discussed this with you?

Mr. FRIZZELL. They knew Daddy was going to be subpoenaed by Congressman Moss and be required to leave for 2 days.

Mr. Moss. I think, Mr. Frizzell, the record should show that you were subpoenaed by the Oversight and Investigations Subcommittee of the U.S. House of Representatives.

Mr. FRIZZELL. I stand corrected, Mr. Chairman.

Then, let's see, I did call one of my former deputies by the name—Deputy Under Secretary—by the name of Fred Kareem, in Lexington,

Ky., who is now in the private practice of law. You don't care what was said.

I contacted Mr. William Lyons, also one of my former Deputy Under Secretaries now in Portland, Oreg., by telephone.

Mr. SANTINI. Is that the same W. W. Lyons identified during the course of your testimony?

Mr. FRIZZELL. It is.

Mr. SANTINI. On how many occasions did you confer with Mr. Lyons prior to your testimony here today?

Mr. FRIZZELL. One telephone call long distance.

Then I contacted just yesterday or the day before Mr. Fred Craft, minority counsel to the Senate Energy Committee.

Then, when I walked in this hearing room today, I saw and talked for the first time since 1976 to the attorney for P.G. & E. who sat next to me and we exchanged pleasantries.

Mr. SANTINI. Who is the attorney for P.G. & E. with whom you conferred this morning?

Mr. FRIZZELL. Now you embarrass me. Mr. Kuder, I believe his name is. He left me and went to talk to the chairman, Mr. Moss.

Mr. SANTINI. The gentleman has waved his hand.

Could you identify yourself?

Mr. KUDER. William B. Kuder.

Mr. Moss. I might add that he is an old friend and a very competent counsel and an excellent adversary.

Mr. SANTINI. Is Mr. Kuder a gentleman with whom you had had conversations in the past?

Mr. FRIZZELL. Only with respect to this matter when it was pending before the Department of the Interior.

Mr. SANTINI. On how many occasions did you confer with Mr. Kuder by estimation between the date March 1976 and the present date?

Mr. FRIZZELL. I am guessing but I will come as close as I can. Approximately four times, three of those between March of 1976 and July of 1976 and once here this morning for 2 minutes.

Mr. SANTINI. In the conversations between March and July of 1976, those three conversations, where did they take place?

Mr. FRIZZELL. I believe that two of them were in Washington, D.C. at the Department of the Interior and one was out here in Sacramento when I came from Washington to hear the objections of the preference customers.

I believe Mr. Kuder was here to represent P.G. & E. at that hearing.

Mr. SANTINI. The two conversations in Washington took place at your office.

Mr. FRIZZELL. No. One of them may have, but the initial meeting was where we had all of the affected departmental officials in what we call the PCC room, Mr. Santini. I am trying to recall why it was called that. It is a general meeting room on the fifth floor of the Department.

Mr. SANTINI. Aside from the significance of the title of the room, did you ever have occasion to meet with Mr. Kuder in a private circumstance at any time between March of 1976 and September of 1976?

Mr. FRIZZELL. No, sir.

Mr. SANTINI. Then you received these documents which you mentioned from Mr. Sims. When did you receive those?

Mr. FRIZZELL. They came in the afternoon mail last Monday, whatever date that is, of this week.

Mr. SANTINI. Monday of this week?

Mr. FRIZZELL. Yes.

Mr. SANTINI. I believe it was your testimony at the inception of the hearings that you just did not have time nor opportunity to look at those documents. Is that correct?

Mr. FRIZZELL. Looked at them. There are a number of documents. I looked at two of them only.

Mr. SANTINI. Which two documents did you examine?

Mr. FRIZZELL. I examined two I have in the other file, one of them being a copy of a letter on stationery of the Department of the Interior, Office of the Solicitor, dated January 19, 1977, a multiple-page letter, 19 pages in fact, and signed by Hugh C. Garner, Deputy Solicitor. I reviewed that.

The other document I reviewed—and in fairness to Mr. Sims I would like to amend my statement. All of these documents came last Monday. He did send me a copy of the GAO report previous to that time, and I have reviewed it. I refer to the November 1977 report.

Mr. SANTINI. You indicated at the outset of your testimony, and I believe I quote you exactly, that you are not an expert in this area, don't pretend to be, and never have.

Mr. FRIZZELL. That is correct.

Mr. SANTINI. And you received your appointment on November of 1975 as Under Secretary, or sworn in as Under Secretary in November of 1975?

Mr. FRIZZELL. Yes.

Mr. SANTINI. So when all of this question in issue arose you had been on the job about 4 months as a nonexpert in this particular subject area. Is that correct?

Mr. FRIZZELL. As Under Secretary. I had been Solicitor for the Department for 2 years prior thereto, since April of 1973, and an Assistant Attorney General at the Department of Justice in the Land and Natural Resources Division since January of 1972, and an attorney general of the State of Kansas during the 1960's, and a member of the State senate for 4 years and chairman of the oil and gas Committee. I have some background.

Mr. SANTINI. That is a matter of public record. Getting back to the point here, since you were not an expert in this area, and do not pretend to be and never had, you had been on the job approximately 4 months when all of this controversy at least erupted in the form of your letter of April 1?

Mr. FRIZZELL. That is correct.

Mr. SANTINI. What are the general responsibilities of the Deputy Secretary, the Under Secretary working with the Secretary in this organizational chart?

Mr. FRIZZELL. As Secretary Kleppe indicated, obvious on the organization chart, "Mr. Frizzell, we are in the same box. My action is yours and yours is mine, and we will work together as a team."

That is the best way I can answer your question. I was officially the No. 2 ranking official within the Department of the Interior, the

No. 1 ranking official obviously being the Secretary. At that time it was Mr. Kleppe.

Mr. SANTINI. Certainly it could not have been the Department of Energy since you were not an expert in this area and do not pretend to be.

Mr. FRIZZELL. Mr. Santini, I have to clarify. My answer on not being an expert—

Mr. SANTINI. You are volunteering again. Please, Mr. Frizzell. Let's pursue the question and answer. You are most familiar with the ordinary processes of direct and cross examination.

Mr. FRIZZELL. I am not an electrical engineer.

Mr. SANTINI. You are volunteering again. As a law professor and lawyer of long standing, you know you are. You are going on long tangents and playing little games. You know that is inappropriate.

Mr. FRIZZELL. I am giving answers.

Mr. SANTINI. You are playing games.

Mr. FRIZZELL. I am being led.

Mr. SANTINI. With regard to the letter of April 1, 1976, you have had a recommendation from your Assistant Secretary of Land and Water Resources supporting the passthrough rate. Your response to that recommendation is your letter of April 1. That date may prove more significant in terms of selection than we realize now.

Mr. FRIZZELL. Can you tell me what exhibit you are on now? I would like to refer to it.

Mr. SANTINI. Yes; I refer to "H."

Mr. FRIZZELL. All right.

Mr. SANTINI. In your April 1 letter you reject the recommendation of Assistant Secretary Morton and direct that alternative courses of action or options be considered.

On what evidence did you base that deduction on April 1, 1976?

Mr. FRIZZELL. On the basis of a meeting held, I believe, the day before, although I am not sure of that date. I think it was March 30 or 31. I also refer to representations made there plus—

Mr. SANTINI. Who attended the meeting the day before?

Mr. FRIZZELL. It included the departmental officials and the P.G. & E. representatives, including Mr. Kuder, who is here, as I recall. He was at that meeting.

The purpose of the meeting was to extend the April 1 deadline so that additional information could be presented with the agreement that if extended whatever decision was made by me would be retroactive back to April 1, 1976, so no time or moneys or rate increases would be lost.

Mr. SANTINI. Mr. Frizzell, what compelling evidence was presented on March 31 to you which suggested that an extension of time was in order?

Mr. FRIZZELL. I can read it, Mr. Santini, but the compelling arguments made to me on that day are contained verbatim in the GAO report on certain pages. I can reference those to you or I can read them.

Mr. SANTINI. You can summarize those arguments because obviously if they were compelling enough to get a departmental reevaluation, they are certainly ones which would stay with you. What were those compelling arguments presented on March 31, 1976, to you, without reading a GAO report which was nonexistent at that time?

Mr. FRIZZELL. My memory is not that good. I had to read this to refresh my recollection, and I would now again for you.

Mr. SANTINI. May we leave it, then, at this point you have no independent recollection at this time of what it was on March 31, 1976, that compelled the letter of April 1, 1976, directing that other options be pursued?

Mr. FRIZZELL. No; that is not accurate, either.

Let me answer it this way: In part, the compelling reasons were—and I will state those for you now from my memory—there were additional reasons that refreshed my recollection, and I recalled upon reading of the GAO report which you don't want me to read.

Mr. SANTINI. There you go with your little gratuitous injections, Mr. Frizzell.

Mr. FRIZZELL. Don't we all do that from time to time?

Mr. SANTINI. This is inappropriate at any trial or in administrative procedure. You are treating this as a matter of cute colloquy rather than as a matter of serious substance with regard to a judgment in which you played a key role.

Mr. FRIZZELL. I couldn't be more serious, Mr. Santini.

Mr. SANTINI. You don't act like it. Please respond to my questions.

Mr. FRIZZELL. My recollection of partial arguments made that led me to grant an extension, knowing that any extension would be retroactive and the Government would lose nothing thereby—

Mr. SANTINI. Except \$73 million.

Mr. FRIZZELL. Oh, no. That had been done long before I came to the Department of the Interior, Mr. Santini.

Mr. SANTINI. All right.

Mr. FRIZZELL. I had no part in that. Nor was it in my power to make it up. We were not reviewing the overall rates to both preference customers and P.G. & E.

Mr. SANTINI. We are digressing again.

Mr. FRIZZELL. I would like to have recouped everything from both sides.

Mr. SANTINI. I am sure.

Mr. FRIZZELL. I don't like Government subsidy.

Their argument that was compelling was on the issue of capacity versus energy, which we have discussed here. That was compelling. There was the fact that neither party hereto had received a rate increase since 1945. This made me want to look into it a little further and make sure of the equities. I thought that was rather strange with the rising costs of energy in the last 30 years.

The fact that P.G. & E. had 8 million customers in the State of California that were going to be affected by this decision, and that some official in the State of California had testified strongly for the same position that P.G. & E. was urging also made me willing to reconsider because this decision didn't—that is an anomaly that it affected P.G. & E. It affects 8 million customers of P.G. & E.

Mr. SANTINI. And you were concerned about these customers?

Mr. FRIZZELL. I certainly was. I wasn't concerned about P.G. & E.

Mr. SANTINI. Of course not.

Mr. FRIZZELL. That is right.

I was concerned because at that hearing statements by Mr. Pelz, Assistant Solicitor who had formerly worked for me in the Solicitor's de-

partment, and I knew well, appeared to me not balanced but those of an advocate for one side only.

Mr. SANTINI. Who is that gentleman again?

Mr. FRIZZELL. Mr. Pelz, P-e-l-z, Assistant Solicitor within the Solicitor's office.

I also realized that at the late date I was hearing from only one side, P.G. & E., and I wanted to hear from the other side, the preference rate customers. To be able to do so I couldn't make a decision effective April 1 and hear out both sides. I didn't want to hear from one side and make a decision because then my decision would have been subject to criticism no matter what it was.

So, for those and other reasons I granted a delay.

Mr. SANTINI. A laudable concern. I refer particularly to the latter one.

Did you ever have occasion during your period of service as the Under Secretary to make a decisive judgment with regard to any other power or ratesetting?

Mr. FRIZZELL. No. My understanding is that there were none to be made, that normally FPC makes them.

Mr. SANTINI. So there were no other decisions?

Mr. FRIZZELL. Not while I was Under Secretary.

Mr. SANTINI. During the period of time you were Under Secretary?

Mr. FRIZZELL. Not that I recall.

Mr. SANTINI. During the period of your service as Under Secretary, do you recall any other example of a decision that you rendered, that ran contrary to the recommendations of the Bureau of Reclamation, the Assistant Secretary of Land, Water, and Resources; Assistant Secretary of Land and Minerals; Assistant Secretary of Program Development and Budget; and the Solicitor, at least the first time?

Mr. FRIZZELL. Many times, Mr. Santini.

Mr. SANTINI. When were those decisions? What were those decisions?

Mr. FRIZZELL. I don't recall which ones they were.

Mr. SANTINI. You have no present recollection, then, of any specific instance in which you interposed your individual judgment in contradiction of the decisionmaking of at least a most significant realm of the entire Department of the Interior?

Mr. FRIZZELL. Yes; I do have one specific now that I refresh my recollection. I think it was in regard to when I was Acting Secretary in the absence of Secretary Morton or Secretary Hathaway. This was on the decision to ban joint bidding by major oil companies on the Outer Continental Shelf.

Representations made to me from four or five of the Assistant Secretaries were contrary to my decision, and, as I indicated then, we don't—

Mr. SANTINI. What month and year would that have been, approximately?

Mr. FRIZZELL. In 1975. Rogers Morton resigned May 1, Secretary Hathaway came in. I was Acting Secretary in between those two gentlemen, and Secretary Kleppe's appointment was in about October of 1975.

As we indicated then to the troops assembled, we don't count votes; we weigh them. If I think everybody is wrong, I am not going to be swayed by the fact it is a 4-to-1—

Mr. SANTINI. You have one example now. Do you have any other examples?

Mr. FRIZZELL. Not that I recall at this time.

Mr. SANTINI. With regard to administrative judgmentmaking?

Mr. FRIZZELL. No.

Mr. SANTINI. Is it the ordinary course of decisionmaking within the Department of the Interior or most any other bureaucratic structure to have an executive representative countermanding five Assistant Secretaries or four Assistant Secretaries and a Solicitor in the judgment process?

Mr. FRIZZELL. I don't believe there were four Assistant Secretaries involved here; only two.

Mr. SANTINI. The two Assistant Secretaries, Assistant Secretary of Energy and Minerals, Assistant Secretary of Program Development and Budget, Assistant Secretary of Land and Water—this makes three.

Mr. FRIZZELL. Energy and minerals were not involved in this, were they? Assistant Secretary for Land and Water and Assistant Secretary of Program Development and Budget.

Mr. SANTINI. Two Assistant Secretaries, the Bureau of Reclamation—

Mr. FRIZZELL. Who works for one of those Assistant Secretaries.

Mr. SANTINI. But supposedly the arena of expertise, and since you were not an expert in this subject, that you could rely on as an Under Secretary a basis for making your judgments as a nonexpert about what would be a fair rate here.

Mr. FRIZZELL. Not an expert on the engineering aspects of the program but an expert, I submit, on what is fair and equitable, more so than the Commissioner of Reclamation or the Assistant Secretary for Land and Water Resources.

Mr. SANTINI. You are an expert, then, in fairness and equity but you are not an expert in this area, "I don't pretend to be and never have been in this area," as ratesetting.

Mr. FRIZZELL. I think as a lawyer you know what the words "fair and equitable" mean from a judicial standpoint. Since neither of those people were lawyers, I had more expertise therein.

Mr. SANTINI. You are an expert in fairness and equity above and beyond the experts in fairness and equity in program development and budget, and the Assistant Secretary of Land and Water and the Bureau of Reclamation?

Mr. FRIZZELL. That is your characterization, not mine.

Mr. SANTINI. I am just borrowing your words. It is not an ordinary kind of administrative decisionmaking process.

Mr. FRIZZELL. I admit to that.

Mr. SANTINI. Thank you.

Mr. FRIZZELL. Perhaps it should be, however.

Mr. SANTINI. If this is any example, God, I would hope not.

Mr. MOSS. Mr. Sims?

Mr. SIMS. Mr. Frizzell, I would like to clarify one point, if I may, for the record here.

Mr. FRIZZELL. Fine, sir.

Mr. SIMS. Mr. Santini had asked you about the compelling argument which was made to you on the 31st of March 1976, on or about that date, by P.G. & E.

Mr. FRIZZELL. Yes.

Mr. SIMS. Just to clarify this in my own mind and for the record, could you tell me how you as a nonexpert could judge P.G. & E.'s argument compelling on this date or 1 day after this date, especially in view of your lack of expertise and the fact that all the other people who had made a recommendation at that time in the Department recommended the other way?

Mr. FRIZZELL. You have to remember, Mr. Sims, this was the first time that the matter had come before me. All of the work that had gone into the issue by the Department prior thereto was done by other individuals. It was just now coming to my office for decision. That is why at that time I was a nonexpert.

I later educated myself, as you have done for the Congressman when this hearing was called.

Mr. SIMS. My question is this: I go to the point of what was it on that day, after 1 day or possibly 2 days of discussions with P.G. & E., what was it that compelled you? This is your term and not mine. What compelled you to stop the process, to in effect reverse the recommendations of the others? That is the point I can't glean from your testimony.

Mr. FRIZZELL. I thought I answered that.

Mr. SIMS. I was hoping you could shed light on that.

Mr. FRIZZELL. I would give the same answers to you I gave Mr. Santini. I wasn't stopping anything. The decision had not yet been made. It was just then before me. It was the first time I had had an opportunity to review it. There was no harm going to be done by postponing it because P.G. & E. stipulated and agreed that any decision would be retroactive to April 1.

Mr. SIMS. I have no further questions, Mr. Chairman.

Mr. FRIZZELL. Because I was uneducated I wanted to get educated.

Mr. MOSS. Mr. Frizzell, I have chaired committees of the House for 24 years. I have had some witnesses who on occasion have been rather boorish. But today I am pleased to award you the honor of being the most boorish of any that I have ever had to content with.

Mr. FRIZZELL. The feeling is mutual, Mr. Chairman.

Mr. MOSS. We are in the position fortunately of commenting upon the entirety of the record. We felt it appropriate to go directly to you for a careful explanation which would constructively contribute to the work of the committee. It seems to have been rather a forlorn hope.

The record is there. It speaks eloquently of your attitude and of your actions. We will comment on those.

With that, you are now excused.

Mr. FRIZZELL. Thank you. Inasmuch as I was subpoenaed—

Mr. MOSS. You are excused—

Mr. FRIZZELL. Good.

Mr. MOSS [continuing]. From the subpoena at this point. If we want you again, we will resubpoena you.

The Chair now would ask that the following panelists come forward to be sworn. We will hear the statements and then proceed with the examination by committee members and counsel.

Mr. Davidson, of the NCPA; Mr. Kuder, of P.G. & E.; Mr. Kaplan, of SMUD; Mr. Hoffner, of the Department of Defense, U.S. Navy. Gentlemen, you will be sworn, please.

Do you and each of you solemnly swear that the testimony you are about to give this subcommittee shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. DAVIDSON. I do.

Mr. KUDER. I do.

Mr. KAPLAN. I do.

Mr. HOFFNER. I do.

Mr. Moss. Identify yourselves to the hearing reporter, name and address and occupation for the hearing record.

TESTIMONY OF DAVID S. KAPLAN, GENERAL COUNSEL, SACRAMENTO MUNICIPAL UTILITY DISTRICT; CARLTON C. HOFFNER, JR., DIRECTOR, UTILITIES DIVISION, WESTERN DIVISION, NAVAL FACILITIES ENGINEERING COMMAND, DEPARTMENT OF DEFENSE; WILLIAM B. KUDER, COUNSEL, PACIFIC GAS & ELECTRIC CO., ACCOMPANIED BY JESSE E. HELLER, SUPERVISING CIVIL ENGINEER; AND DANIEL I. DAVIDSON, SPECIAL COUNSEL, NORTHERN CALIFORNIA POWER AGENCY, AND THE CITIES OF BIGGS, PALO ALTO, REDDING, ROSEVILLE, AND SANTA CLARA, CALIF., AND THE PLUMAS-SIERRA RURAL ELECTRIC COOPERATIVE

Mr. KAPLAN. My name is David Kaplan. I am general counsel for the Sacramento Municipal Utility District, 6210 S Street, Sacramento.

Mr. HOFFNER. Carlton C. Hoffner, Jr., of the Western Division, Naval Facilities Engineering Command, Utilities Division Director, with P.O. Box 727 in San Bruno, Calif.

Mr. KUDER. I am William B. Kuder, counsel for Pacific Gas & Electric Co.

Mr. DAVIDSON. I am Daniel I. Davidson, member of the law firm of Spiegel & McDiarmid of Washington, D.C. I am here in behalf of the Northern California Power Agency.

Mr. Moss. If you gentlemen would be seated, I assume we can start from either right or left.

We will start with Mr. Kaplan and go right down the table.

Gentlemen, if you desire, we extend to you the normal courtesy of the committee which we extend to all witnesses—either you may present your statement in full or you may summarize it if you choose.

If you choose to summarize it, the entirety of the statement will be placed in the record at the appropriate point in the record.

With that, Mr. Kaplan, we are pleased to recognize you and we are pleased to have each of you present here with us.

STATEMENT OF DAVID S. KAPLAN

Mr. KAPLAN. Thank you Mr. Chairman.

I have a prepared statement [see p. 108]. I shall omit portions of it in the interest of time.

My name is David Kaplan. I am general counsel of the Sacramento Municipal Utility District.

The Sacramento Municipal Utility District, commonly referred to as SMUD, purchases 360,000 kilowatts of Central Valley project

power at the district's monthly system load factor under a contract executed on December 12, 1952, and revised on January 26, 1954. SMUD also has a hydroelectric project of its own with an installed capacity of 649,000 kilowatts and a nuclear generating plant with a capacity of approximately 913,000 kilowatts. SMUD has a contract with Pacific Gas & Electric Co. providing for coordinated operation of the company and district systems and for sales by the district to the company of short term surplus power from the district's nuclear plant.

I will comment briefly on three topics: the "no-deficit-year" concept adopted by the Department of the Interior in its document titled 730 DM 4.8; the decision made by the Department of the Interior on December 14, 1976, to sell Northwest capacity to Pacific Gas & Electric Co. at less than cost; and the recent reduction in Project Dependable capacity from 849 megawatts to 554 megawatts.

The "no-deficit-year" concept is a concept adopted by the Department in connection with its current attempt to raise rates. Essentially it is that rates must be set at a level to cover operating costs in each and every year and that averaging over a period of years will not be accepted. This concept is inconsistent with prior practices of the Department of the Interior and inconsistent with practices used in other projects.

The averaging concept had been accepted by the House Interior Committee in a report cited in my prepared statement.

All of these materials were reviewed by the Comptroller General in 1973 in a report entitled B-125042. It was there stated:

The no-deficit-year concept used in the CVP's rate and repayment study is not consistent with the criterion used by other Federal power projects or with congressional statements as to the concepts which should be used in preparing a rate and repayment study.

The Comptroller General also stated that he believed that the sole basis intended for testing the adequacy of the power rate is that stated in the House report cited above in the following language:

As long as the unamortized investment is less than the allowable unamortized investment, this demonstrates that each generating project, and each increment of investment in the transmission system, is being repaid within the allowable period.

The Sacramento office of the Western Area Power Administration has prepared an alternative study, alternative to the study upon which their present rate increase proposal is based, based on the criterion outlined in the Comptroller General's report. That study results in an energy rate that is approximately half a mill lower than the rate called for in the CVP's September 1977 tentative power rate adjustment study. We hope the Department of Energy will abandon the "no-deficit-year" concept and return to the traditional criterion approved by the House Interior Committee in the report cited above.

The second topic in my statement is the topic Mr. Frizzell has testified to. I shall omit a couple pages where I review some of the matters which have been testified to at length.

Our primary concern runs to the future and not to the past, and our primary interest runs to the rates we will be charged rather than to the rates charged to Pacific Gas & Electric Co. We intend, in the rate increase proceeding now in progress, to make the following contention for which we believe there is a sound legal basis:

The contract through which SMUD purchases Central Valley project power was executed by the United States pursuant to section 9(c) of the Reclamation Act, and the provisions of that act and of all other pertinent statutes must be deemed incorporated into that contract.

Section 9(c), which is quoted earlier in this statement, contemplates that all sales of project power shall be at rates sufficient to enable the Government to recover its cost. The Under Secretary's decision of December 14, 1976, which the Department's Solicitor originally concluded could not be supported, was therefore not only a violation of section 9(c) but also a breach of the SMUD contract for which the district is entitled to recover damages. The measure of those damages will be that portion of the proposed rate increase which results from the failure of the Department of the Interior to recover from Pacific Gas & Electric Co. the full cost of Centralia capacity sold to the company.

We hope that the officials of the Department of Energy, who were not responsible for the December 14, 1976 decision, will recognize the merits of our position and will not seek to recover from the Central Valley project's public agency customers the losses incurred by the Government as the result of the arrangements made with a private utility by the former Under Secretary of the Interior.

I will now comment on the recent reduction in Project Dependable capacity.

The Central Valley project includes seven powerplants and two pumping-generating plants with a total installed capacity of approximately 1,400 megawatts. These facilities are operated in conjunction with the generating system of Pacific Gas & Electric Co. under an integration contract entered into on July 31, 1967.

Among other things, the contract provides that energy and capacity generate by the CVP system, along with power imported from the Northwest, which is in excess of the CVP's customer load requirements shall be sold to P.G. & E.

Since there is not enough water available to operate the CVP powerplants all of the time, the amount of capacity with which those plants should be credited had to be established through negotiation when the 1967 contract and a predecessor 1951 contract were developed.

Basically, the concept adopted was that Project Dependable capacity should be established by assuming reservoir inflow equivalent to that in the 1930-33 dry period, and determining the quantity of megawatts the project could generate with that inflow for periods long enough to be useful to the northern California area load. In the spring of 1977, Project Dependable capacity stood at 849 megawatts.

Section 11(b)(2) of the 1967 contract provides that if because of inadequate water supply the project plants are incapable of operating for the periods contemplated by the contract, Project Dependable capacity shall be reduced to a lesser figure, and shall remain at that figure for 5 years "unless otherwise agreed."

Because of the 1976-77 drought, project dependable capacity was reduced from 849 megawatts to 554 megawatts in June of 1977. In the CVP's September 1977 tentative power rate adjustment study, it is assumed that project dependable capacity will remain at 554 megawatts for the full 5-year period referred to in the 1967 contract. This assumption has the effect of increasing the rates to be charged to

preference customers since, under the study assumptions, any reduction in revenues from power sales to Pacific Gas & Electric Co. must be compensated for by an increase in revenues obtained from the preference customers.

We do not believe that CVP rates to SMUD and the other public agency customers should be set today on the assumption that Project Dependable capacity will remain at the unrealistically low figure of 554 megawatts for the full 5 years. Pacific Gas & Electric Co. has not stated that it will insist on pressing its contract rights to the ultimate, and we do not believe that it should or will.

The essentials of the situation are, one, that there is no generally accepted practice of rating a hydroproject solely on the basis of the driest year of record, and that, on the contrary, Federal Power Commission publication FPC P-35, 1967, states:

In cases where the streamflow records indicate that the most adverse flows are not likely to occur except at long intervals of time and are likely to be of very short duration, such abnormal limitation may be treated as a condition to be covered by the reserve capacity.

Two, the 1930-33 period used as a basis for establishing Project Dependable capacity was not the driest period of record, and that this shows that the company and the Government did not contract on the premise that Project Dependable capacity should be determined solely on the basis of the driest year of record;

Three, that current CVP studies show that reservoir levels are sufficient to support a Project Dependable capacity at essentially the predrought level for the remainder of 1978 and through 1979;

Four, that the provision in the contract that the 5-year waiting period shall apply only "unless otherwise agreed" was intended to have some meaning and that, if it is not to be treated as a nullity, it should be applied to the unusual situation in which we find ourselves today; and

Five, that it is neither fair nor equitable that Pacific Gas & Electric Co. be permitted to schedule approximately 1,400 megawatts of capacity with energy sufficient to make over 800 megawatts of that capacity dependable under any reasonable criteria but to make payment on the assumption that the government should be credited for only 554 megawatts.

The Western Area Power Administration has requested, in a letter to the company dated April 19, 1978, that Project Dependable capacity be restored to its predrought level effective July 1, 1978. For the reasons outlined above, we believe that to be a fair and reasonable request.

We would hope that the committee will support the Western Area Power Administration in the position it has taken. Moreover, whether or not the Western Area Power Administration request is granted immediately, we would hope that CVP rates to the preference customers will not be set today on the assumption that Project Dependable capacity will remain at 554 megawatts until 1982. As stated above, Pacific Gas & Electric Co. has not indicated that it will take so extreme a position.

We have appreciated the opportunity to submit these comments and hope they will be helpful to the committee.

[Mr. Kaplan's prepared statement follows:]

UNITED STATES HOUSE OF REPRESENTATIVES
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE
OVERSIGHT AND INVESTIGATIONS SUBCOMMITTEE
HON. JOHN E. MOSS, CHAIRMAN

Statement of David S. Kaplan
for
SACRAMENTO MUNICIPAL UTILITY DISTRICT

Mr. Chairman and Members of the Committee:

My name is David S. Kaplan. I am General Counsel of the Sacramento Municipal Utility District.

The Sacramento Municipal Utility District, commonly referred to as "SMUD", purchases 360,000 kilowatts of Central Valley Project power at the District's monthly system load factor under a contract executed on December 12, 1952, and revised on January 26, 1954. SMUD also has a hydroelectric project of its own with an installed capacity of 649,000 kilowatts and a nuclear generating plant with a capacity of approximately 913,000 kilowatts. SMUD has a contract with Pacific Gas & Electric Company providing for coordinated operation of the Company and District systems and for sales by the District to the Company of short term surplus power from the District's nuclear plant.

I will comment briefly on three topics: the "no deficit year" concept adopted by the Department of the Interior in its document titled 730 DM 4.8, the decision made by the Department of the Interior on December 14, 1976, to sell Northwest capacity to Pacific Gas & Electric Company at less than cost, and the recent reduction in Project Dependable Capacity from 849 megawatts to 554 megawatts.

The "no-deficit year" concept.

In a Departmental document titled 730 DM 4.8, the Department of the Interior adopted the concept that projected annual revenues must be sufficient to meet all costs in the year they occur except investment and replacement costs and except that current interest may be deferred in unusual circumstances for a short period of time. This concept derives from an opinion issued by the Department's Assistant Solicitor, Power, on February 15, 1974.

The applicable statute, Section 9(c) of the Reclamation Act, provides that

"Any sale of electric power ... made by the Secretary ... shall be ... at such rates as in his judgment will produce power revenues at least sufficient to cover an appropriate share of the annual operation and maintenance cost, interest on an appropriate share of the construction investment at not less than 3 per centum per annum, and such other fixed charges as the Secretary deems proper."

Until the current attempts to increase Central Valley Project rates commenced, the Department of the Interior had construed this language to permit averaging year to year variations in costs and revenues over the repayment period. This administrative interpretation of the statute had Legislative support. House of Representatives Report No. 1409, 89th Congress, Second Session, pages 9-10 (1966) contains the following language:

"The test of the sufficiency of revenues is whether the capital investment can be repaid within the overall repayment period established for each power project, each increment of investment in the

transmission system, and each block of irrigation assistance. Hence, repayment may proceed at a faster or slower pace from year to year as conditions change. Annual operating costs and revenues, of course, may vary from year to year since they are affected by weather conditions, streamflows, current economic conditions, changing markets, and the absorption of new projects into the system.

"This approach to repayment scheduling has the effect of averaging the year-to-year variations in costs and revenues over the repayment period. This results in a uniform cost per unit of power sold, and permits the maintenance of stable rates for extended periods."

Reviewing these materials, the Comptroller General concluded in a 1973 report (B-125042) to the Conservation and Natural Resources Subcommittee, Committee on Government Operations:

"The no-deficit year concept used in the CVP's rate and repayment study is not consistent with the criterion used by other Federal power projects or with Congressional statements as to the concepts which should be used in preparing a rate and repayment study."

The Comptroller General also stated that he believed that the sole basis intended for testing the adequacy of the power rate is that stated in the House Report cited above in the following language:

"As long as the unamortized investment is less than the allowable unamortized investment, this demonstrates that each generating project, and each increment of investment in the transmission system, is being repaid within the allowable period."

The Sacramento office of the Western Area Power Administration has prepared an alternative study, designated E2R1, based on the criterion outlined in the Comptroller

General's report. That study results in an energy rate that is approximately half a mill lower than the rate called for in the CVP's September 1977 tentative power rate adjustment study. We hope the Department of Energy will abandon the "no-deficit-year" concept and return to the traditional criterion approved by the House Interior Committee in the report cited above.

The December 14, 1976, decision to
sell Northwest Capacity to Pacific
Gas & Electric Company at less than
cost.

The CVP's September 1977 tentative power rate adjustment study states, on Page A-4, that one of the factors creating a need for a rate increase is the December 14, 1976, decision of the Department of the Interior to sell some of the capacity purchased by the CVP from the Northwest to Pacific Gas & Electric Company at Project capacity rates. These rates are lower than the rates at which the CVP purchases Northwest capacity.

SMUD and the other public agency customers filed briefs with the Department opposing the proposal to sell Northwest capacity at less than cost, and there seems no purpose in reiterating the arguments made in those briefs. We will merely point out (1) that the Assistant Secretary of the Interior in his proposed decision on February 20, 1976, concluded that Pacific Gas & Electric Company should be required to pay cost for Northwest capacity, (2) that in a memorandum dated July 22, 1976, the Program Development and Budget Section of

the Department recommended not only that PG&E be required to pay cost for Northwest capacity purchased between 1976 and 1981, but also that the rates set during the 1976-1981 period be sufficient to enable the United States to recover the losses it had incurred prior to 1976 through the sale of Northwest capacity to PG&E at less than cost, (3) that in a memorandum dated August 30, 1976, the Acting Commissioner of Reclamation urged that PG&E be required to pay cost for Northwest capacity, (4) that in a memorandum dated August 31, 1976, the Assistant Secretary - Program Development and Budget recommended that PG&E be required to pay cost for Northwest capacity, (5) that in a memorandum dated August 31, 1976, the Assistant Secretary - Land and Water Resources recommended that PG&E be required to pay cost for Northwest capacity, and (6) that in a memorandum dated September 1, 1976, the Solicitor of the Department not only recommended that PG&E be required to pay cost for Northwest capacity, but went on to state that a rate that would enable the Government to recover the cost of Northwest capacity sold to Pacific Gas & Electric Company was "the only rate that can be supported on the record."^{1/} Nevertheless, disregarding all of these recommendations, the Under Secretary decided, on December 14, 1976, that a portion of the CVP sales of Northwest capacity to Pacific Gas & Electric Company should be on a "less than cost" basis.

^{1/} In a second memorandum, dated September 28, 1976, after further inquiry from the Under Secretary, the Solicitor altered his opinion and said that a "less-than-cost" rate could also be supported on the record. The Solicitor did not alter his recommendation that Pacific Gas & Electric Company be required to pay cost.

Our primary concern runs to the future and not to the past, and our primary interest runs to the rates we will be charged rather than to the rates charged to Pacific Gas & Electric Company. We intend, in the rate increase proceeding now in progress, to make the following contention for which we believe there is a sound legal basis: The contract through which SMUD purchases Central Valley Project power was executed by the United States pursuant to Section 9(c) of the Reclamation Act, and the provisions of that Act and of all other pertinent statutes must be deemed incorporated into that contract. Section 9(c), which is quoted earlier in this statement, contemplates that all sales of Project power shall be at rates sufficient to enable the Government to recover its cost. The Under Secretary's decision of December 14, 1976, which the Department's Solicitor originally concluded could not be supported, was therefore not only a violation of Section 9(c) but also a breach of the SMUD contract for which the District is entitled to recover damages. The measure of those damages will be that portion of the proposed rate increase which results from the failure of the Department of the Interior to recover from Pacific Gas & Electric Company the full cost of Centralia capacity sold to the Company.

We hope that the officials of the Department of Energy, who were not responsible for the December 14, 1976, decision, will recognize the merits of our position and will not seek to recover from the Central Valley Project's public agency customers the losses incurred by the Government as

the result of the arrangements made with a private utility by the former Under Secretary of the Interior.

The recent reduction in
Project Dependable Capacity.

The Central Valley Project includes seven powerplants and two pumping-generating plants with a total installed capacity of approximately 1400 megawatts. These facilities are operated in conjunction with the generating system of Pacific Gas & Electric Company under an integration contract entered into on July 31, 1967. Among other things, the contract provides that energy and capacity generated by the CVP system, along with power imported from the Northwest, which is in excess of the CVP's customer load requirements shall be sold to PG&E. Since there is not enough water available to operate the CVP powerplants all of the time, the amount of capacity with which those plans should be credited had to be established through negotiation when the 1967 contract and a predecessor 1951 contract were developed. Basically, the concept adopted was that Project Dependable Capacity should be established by assuming reservoir inflow equivalent to that in the 1930-33 dry period and determining the quantity of megawatts the Project could generate with that inflow for periods long enough to be useful to the Northern California area load. In the spring of 1977, Project Dependable Capacity stood at 849 megawatts.

Section 11(b)(2) of the 1967 contract provides that if because of inadequate water supply the Project plants

are incapable of operating for the periods contemplated by the contract, Project Dependable Capacity shall be reduced to a lesser figure and shall remain at that figure for five years "unless otherwise agreed." Because of the 1976-1977 drought, Project Dependable Capacity was reduced from 849 megawatts to 554 megawatts in June of 1977. In the CVP's September 1977 tentative power rate adjustment study, it is assumed that Project Dependable Capacity will remain at 554 megawatts for the full five year period referred to in the 1967 contract. This assumption has the effect of increasing the rates to be charged to preference customers since, under the study assumptions, any reduction in revenues from power sales to Pacific Gas & Electric Company must be compensated for by an increase in revenues obtained from the preference customers.

We do not believe that CVP rates to SMUD and the other public agency customers should be set today on the assumption that Project Dependable Capacity will remain at the unrealistically low figure of 554 megawatts for the full five years. Pacific Gas & Electric Company has not stated that it will insist on pressing its contract rights to the ultimate, and we do not believe that it should or will. The essentials of the situation are (1) that there is no generally accepted practice of rating a hydroproject solely on the basis of the dryest year of record and that, on the contrary, Federal Power Commission Publication FPC P-35 (1967) states:

"In cases where the streamflow records indicate that the most adverse flows are not likely to occur except at long intervals of time and are likely to be of very short duration, such abnormal limitation may be treated as a condition to be covered by the reserve capacity."

(2) that the 1930-33 period used as a basis for establishing Project Dependable Capacity was not the dryest period of record, and that this shows that the Company and the Government did not contract on the premise that Project Dependable Capacity should be determined solely on the basis of the dryest year of record, (3) that current CVP studies show that reservoir levels are sufficient to support a Project Dependable Capacity at essentially the pre-drought level for the remainder of 1978 and through 1979, (4) that the provision in the contract that the five year waiting period shall apply only "unless otherwise agreed" was intended to have some meaning and that, if it is not to be treated as a nullity, it should be applied to the unusual situation in which we find ourselves today, and (5) that it is neither fair nor equitable that Pacific Gas & Electric Company be permitted to schedule approximately 1400 megawatts of capacity with energy sufficient to make over 800 megawatts of that capacity dependable under any reasonable criteria but to make payment on the assumption that the Government should be credited for only 554 megawatts.

The Western Area Power Administration has requested, in a letter to the Company dated April 19, 1978, that Project Dependable Capacity be restored to its pre-drought level effective July 1, 1978. For the reasons outlined above, we

believe that to be a fair and reasonable request. We would hope that the Committee will support the Western Area Power Administration in the position it has taken. Moreover, whether or not the Western Area Power Administration request is granted immediately, we would hope that CVP rates to the preference customers will not be set today on the assumption that Project Dependable Capacity will remain at 554 megawatts until 1982. As stated above, Pacific Gas & Electric Company has not indicated that it will take so extreme a position.

Conclusion

We have appreciated the opportunity to submit these comments and hope they will be helpful to the Committee.

* * * *

Mr. Moss. Thank you very much.
Mr. Hoffner?

STATEMENT OF CARLTON C. HOFFNER, JR.

Mr. HOFFNER. Mr. Chairman and gentlemen, I appear as a representative of the Department of Defense, General Services Administration, National Aeronautics and Space Administration, all Federal agency preference customers of the Central Valley project. My comments represent the position of these agencies. Attachment "A" [see p. 120] is a listing of the major groups of preference customers served by the Central Valley project.

The Federal agencies account for approximately 20 percent of the total project kilowatt hour sales and supply approximately 22 percent of the project revenue.

At the interim rates which are to go into effect on May 25, 1978, the Federal agencies expect to purchase approximately \$9.6 million of service from the Central Valley project annually. Attachment "B" [see p. 120] lists the specific Federal installations which receive service from the Central Valley project.

The current rate adjustment procedure is a direct outgrowth of a customer's lawsuit—*Northern California Power Agency, et al., v. Rogers C. B. Morton*—which successfully challenged the Bureau of Reclamation's 1973 proposed rate increase. The procedures which were adopted in response to the court suit, while a significant advance over the previous unwritten procedures, still fall short of the full procedural safeguards common to other utility ratesetting bodies, such as the Federal Energy Regulatory Commission and State public utilities commissions. The procedures do not contain provisions for sworn testimony, cross-examination, or truly independent decisionmaking. The newly formed Department of Energy has, for the present, retained these procedures for the pending Central Valley project rate adjustment. It is our hope that in time the Department of Energy will rectify the procedural deficiencies in the existing rate adjustment process, and institute formal ratemaking procedures as used by the Federal Energy Regulatory Commission and previously recommended by the Federal agencies.

The present ratesetting procedures not only raise the possibility of an inequitable decision, but have a more practical disadvantage. It is not clear whether the current procedural rules could successfully resist a legal challenge. A court reversal could again invalidate a rate adjustment and force the Central Valley project to refund the amount of the increase, as occurred with the 1973 rate adjustment. It would appear to be in the Department of Energy's own best interest to insure that the rate adjustment procedures complied beyond a doubt with the requirements of due process to eliminate even the possibility of a reversal.

The second element of concern in the ratesetting procedure is the reliance upon the average rate and repayment study in determining a rate. The average rate and repayment study estimates both the expenses and revenues of the project over its future remaining life—usually 50 years—and determines what average charge would recoup all project costs during that period.

The problems of estimating labor and material costs for 50 years into the future are obvious. Another problem is that small changes in assumptions when compounded over 50 years can have a major impact on the repayment. The central problem is the inherent assumption in the study that a fixed rate is appropriate for 50 years.

This is a completely unrealistic expectation in view of the past and future expectation of inflation. No other utility would seriously consider establishing a fixed price for service over the next 50 years. The average rate and repayment study may have had some validity during periods of stable prices, but it is inappropriate in the present inflationary climate.

The relationship between the Central Valley project and Pacific Gas & Electric Co. is of concern because it determines, in a large part, the costs which are to be recovered from the preference customers and also the amount of power which is available for preference customers. The Central Valley project's failure to aggressively assert its rights with respect to Pacific Gas & Electric Co. has cost both the preference customers and the U.S. Treasury millions of dollars.

The Bureau of Reclamation in April 1971 failed to adequately set the rate for the sale of Pacific Northwest power to Pacific Gas & Electric Co. for the following 5-year interval.

During that period, the project was forced to sell Pacific Northwest power to Pacific Gas & Electric Co. at far below its cost to the project, losing, by the Bureau's own calculations, \$44 million from 1972 through June 30, 1975. At the next opportunity to adjust the price for Northwest power, the Department of Interior, rejecting the advice of the Bureau of Reclamation and all the preference customers, again chose to sell Northwest power to Pacific Gas & Electric Co. at below cost. The Department of Interior acknowledged that the decision to sell power to Pacific Gas & Electric Co. below cost would result in an additional loss of \$26 million over the next 5 years to the Central Valley project.

Pacific Gas & Electric Co. has not, however, adopted the same indulgent attitude toward the project. In July of 1977, due to the extreme drought conditions then prevailing in California, the project was forced to reduce dependable capacity. The return of normal rainfall in the beginning of 1978 has since replenished the project reservoirs, enabling normal power production.

Pacific Gas & Electric Co. has, however, insisted upon a contract provision which would not permit the restoration of the project dependable capacity for 5 years, regardless of the actual physical production.

The contract provision, according to Department of Energy experts, was never envisioned as applying to capacity reductions but rather intended to provide Pacific Gas & Electric Co. a period for planning during capacity increases. The result of Pacific Gas & Electric Co.'s rigid interpretation of the contract provision is an estimated loss of at least \$32 million in revenue to the project.

We would recommend that the project adopt a more aggressive ratemaking policy toward Pacific Gas & Electric Co. A policy which would utilize an open formal ratesetting procedure including the resolution of disputes before the Federal Regulatory Commission where applicable. Such a policy would permit the preference customers, who

ultimately bear the burden of project costs, to participate actively in defending the project interests.

The Federal agencies were among the original preference customers of the Central Valley project and have received excellent low-cost electric service from the project for the past 30 years.

It is important to note that even with the current operating deficits, the Central Valley project has through 1976, repaid to the U.S. Treasury 80 percent of the total investment allocated to power. The project repayment has been far more rapid than required by law.

In addition during this period the project has amassed a vast reservoir of prepaid power which is not reflected in the financial report. The project has currently accrued rights to over 2 years of energy at 2.8105 mills per kilowatt-hour, representing over \$20 million at current rates. The interim rates which will go into effect in May will drastically reduce the current operating deficit.

We believe that reformation of the ratesetting policy for both the preference power customers and Pacific Gas & Electric Co. will restore the project to financial health.

[Attachments A and B referred to follow :]

CENTRAL VALLEY PROJECT PREFERENCE POWER CUSTOMERS

	Sales (thousand kilowatt hours)	Percent of total	Revenue ¹ (thousands of dollars)	Percent of total
Municipals.....	1,907,000	34.6	\$14,285	33.3
Sacramento Municipal Utility District.....	1,915,000	34.8	14,786	34.4
Shasta Dam Public Utility District.....	31,000	.6	241	.6
Plumas Sierra Rural Electric District.....	78,000	1.4	563	1.3
Federal agencies.....	1,109,000	20.2	9,419	21.9
Irrigation districts.....	354,000	6.4	2,827	6.6
State agencies.....	109,000	2.0	824	1.9
Total.....	5,503,000	100.0	42,945	100.0

¹ Based on average projected consumption 1978-81 using May 1978, interim rates.

FEDERAL AGENCY CUSTOMERS OF THE CENTRAL VALLEY PROJECT

Agency	Consumption (thousand kilowatt hours)	Cost ¹
Federally supported lab:		
Lawrence lab.....	164,900	\$1,270,860
Site 300.....	12,200	94,960
Slac.....	217,500	1,586,380
Total.....	394,600	2,952,200
NASA: Ames.....	234,000	2,567,660
Navy:		
Mare Island.....	105,100	858,780
NAS Lemoore.....	57,500	447,150
NAS Moffett.....	24,500	196,310
NCS Stockton.....	16,800	163,860
Navradsta Dixon.....	15,200	107,800
WPNSTA Concord.....	11,800	98,400
Total.....	230,900	1,872,300
Air Force:		
AFB Beale.....	100,000	817,410
AFB Castle.....	28,400	227,270
AFB Mather.....	44,800	353,120
Mather Wherry.....	5,100	45,810
AFB Travis.....	62,500	473,490
Travis Wherry.....	6,800	56,770
Total.....	247,600	1,973,870

FEDERAL AGENCY CUSTOMERS OF THE CENTRAL VALLEY PROJECT

Agency	Consumption (thousand kilowatt hours)	Cost ¹
Army:		
Sharpe Depot.....	8,600	\$98,490
Tracy Depot.....	11,600	102,620
Total.....	20,200	201,110
Others:		
USIA Dixon.....	5,000	49,440
Camp Parke.....	780	6,740
Job Corp Lewiston.....	650	5,350
Total.....	6,430	61,530
Total.....	1,133,530	9,628,670

¹ At May 1978 interim rates.

Mr. MOSS. Thank you very much. Mr. Kuder?

Mr. KUBER. May we have a brief recess. Mr. Chairman? We have been here a long time.

Mr. MOSS. Res; indeed. We will recess for 10 minutes.

Mr. KUDER. Thank you very much.

[Brief recess.]

Mr. MOSS. The subcommittee will be in order.

TESTIMONY OF WILLIAM B. KUDER

Mr. KUDER. I shall proceed with the parts of my statement with regard to background, at the beginning of page 3.

Mr. MOSS. Your statement in its entirety will be included in the record [see p. 125]

Mr. KUBER. The Centralia rate and PDC arise from the contractual relationship between the United States and P.G. & E.

Under the contract, the Central Valley project receives firming support and reserves which permit it to serve twice as much preference customer loads as it could otherwise serve.

We have estimated that this will result in an overall savings to the preference customers of about \$213 billion for the period, 10-year period, 1971-81. Their savings over the life of the contract will be far greater.

Any analysis of the contractual arrangement between the United States and the P.G. & E. must recognize two very significant benefits provided to preference customers. The first benefit is derived from energy account No. 1. The Department can buy energy from this account at far less cost than from Centralia or any other source.

The second significant benefit springs from the other two bank accounts in the contract, energy account No. 2 and the capacity account.

These accounts provide that the Department can sell variable and unpredictable power to P.G. & E. when there is a surplus available.

At a later time, when it needs power to serve the preference customers, it can withdraw as much power as it needs from the account. The power it withdraws is firm power backed up by the entire P.G. & E. area system.

It is far better power than that originally deposited. Nevertheless, the Department is required to pay P.G. & E. only the same price

charged P.G. & E. when the power was banked, plus an adjustment to reflect changes in production costs and a modest service charge.

To the extent that power is sold into the bank account at less than the Department's cost, the so-called loss is recovered when the power is unbanked at a lower repurchase price. The assured market and continuing course of low-cost power provided by P.G. & E. through the banking arrangements are significant benefits. This should be kept in mind when considering the Centralia rate and Project Dependable capacity.

The Centralia rate issues were not only whether the Department should recover its costs, but also whether the several million consumers served by P.G. & E. should pay for power used by the power consumers of the relatively few preference customers served by CVP.

In a telegram to the Secretary of the Interior in 1976, the president of the California Public Utilities Commission stated:

There is no justification in law or public policy for such discrimination against the 6 million nonpreference power consumers in northern and central California.

We urge you to adopt and announce a policy of allocating the cost of Centralia capacity to the consumers who use it.

The so-called split rate adopted by the Secretary accomplishes this goal. Moreover, the rate represents a full cost of service rate for the power sold to P.G. & E.

The Department purchases Northwest capacity having 80 percent capacity factor energy. This is high quality power, and its quality is reflected in the price the Department pays for it.

The Department resells this power first to the preference customers to the extent it is needed by them; and second, whatever is left, if any, goes to P.G. & E.

As a result, the preference customers get support for their loads, no matter what kind of power P.G. & E. has received in the first place.

Obviously, these two kinds of power are different. Cream and skim milk do not sell for the same price, although they come from the same source. Neither Should different kinds of power be sold at the same price.

P.G. & E. has explained that the value of capacity is related to the amount of energy which accompanies that capacity. P.G. & E.'s customers should not be charged high baseload capacity rates for Centralia capacity without the offsetting benefit of purchasing baseload quantities of energy at reasonable prices.

If the large quantities of energy that normally accompany baseload capacity are not available for sale to P.G. & E., then the "fair and equitable" standard of the contract would require that the rate for Centralia capacity be reduced accordingly. The rate agreed to by the Department of Energy and P.G. & E. reflects this difference in quality by charging Centralia "passthrough" capacity costs for that portion of capacity associated with energy at a 60-percent capacity factor. The balance of the capacity, without energy, is sold at a lower rate.

In light of the above analysis, it is clear that the Centralia rate meets the "fair and equitable" standard of contract 2948A, even when the rate is subjected to the alternative cost test suggested by some of the preference customers.

In P.G. & E's June 26, 1976, written comments in the CVP rate adjustment proceeding, we pointed out that, compared to alternative

costs, the preference customers' total benefits between 1971 and 1981 under the "split rate" would be \$213 million, while the benefit to P.G. & E.'s customers would be only \$76 million.

Under the so-called passthrough rate, the difference in benefits would be even more inequitable; that is, \$240 million for the preference customers versus \$51 million for the P.G. & E. customers.

In this connection we point out that P.G. & E. makes no profit on the power it purchases from CVP. The cost of this power is an operating cost, like, for example, the cost of oil or other fuel.

Under utility regulation the company can attempt to earn a return only on its prudent investment of capital in generating plants or other electric facilities. Power purchased by the company is resold to its customers at the same price the company paid without any markup. To the extent that such power costs less than power from other sources, the customers, not the company, benefit from the transaction.

Most of the Centralia power will be purchased by the preference customers, not P.G. & E. between April 1, 1976, and the termination of Centralia purchases by WAPA at the end of 1981.

According to GAO, there will be prospective losses on sales to the preference customers of about \$214 million, and \$12 million on sales to P.G. & E. In fact, there will be no loss on sales to P.G. & E. at the split rate.

I now return to Project Dependable Capacity.

The Department CVP rate adjustment study has been criticized on the grounds that its assumed levels for Project Dependable capacity are too low.

The dependable capacity of a hydroelectric plant is generally defined as the capacity the plant is assured of having available during the most adverse hydrologic period of record. Thus, dependable capacity, that is Project Dependable Capacity, determines the amount of capacity the project owner can count on to use or market, even under the most severe hydrologic conditions. The project owner can defer investment in additional generation and be reasonably assured that even in a severe drought he will be able to meet his power commitments. This also applies to a purchaser of firm power from the project owner.

The recent drought in California caused the Department to declare a reduction in Project Dependable Capacity to 554 megawatts as of July 1, 1977.

On July 12, 1977, the Department requested that a redetermination study be performed to see what adjustment, if any, should be made to the 554 megawatts figure. P.G. & E. agreed.

In a letter dated April 19, 1978, the Department requested that P.G. & E. waive the 5-year provision of the contract and increase Project Dependable Capacity effective July 1, 1978, stating that it would require about 2 years to complete the studies required for a project dependable capacity redetermination.

P.G. & E. has not yet answered the Department's letter. However, our initial reaction is that the request is premature. The parties should be given an opportunity to complete a reasonable engineering review of the drought and its effect on PDC before being asked to increase PDC.

The 2-year drought, albeit an unfortunate event, has clearly shown that the previous assumptions regarding hydrology were unrealistic and resulted in PDC levels which were too high. Thus, in effect, the Department had been marketing more dependable capacity than it really had.

P.G. & E. adjusted its resource planning to recognize the availability of only 554 megawatts in a critical year instead of 849 megawatts previously assumed to be available in 1977.

To compensate for this loss of nearly 300 megawatts of the CVP dependable capacity. P.G. & E. may have to increase in alternate generation or purchase capacity. For example, P.G. & E. was required to purchase capacity from others during 1977.

P.G. & E. is willing to work diligently with the Department in studying the effect of the drought on project dependable capacity. However, it must be recognized that these studies will take some time to complete. The progress and ultimate completion of the current PDC redetermination study are controlled largely by the amount of time required to assemble and study necessary data.

Before the effect of the drought can be assessed, the hydrologic data for the 1976-1977 drought period and a reasonable period thereafter must be assembled. Further, in order to make an accurate evaluation of PDC we must know what changes, if any, the USBR might take in its water operations policy as a result of the drought. P.G. & E. has requested this information of WAPA.

Until a full analysis is made, and all factors are considered, it would be too soon to say whether it would be appropriate for P.G. & E. to agree to waive the 5-year contract provision. We suggest that the prudent course would be for both parties to proceed expeditiously with the redetermination studies. Appropriate decisions can be made when all the facts are in and studies are completed.

Even if CVP power rates are increased as proposed by WAPA, the general public will suffer. National Economic Research Associates, Inc., in 1967 estimated that Federal power sold at less than its true cost by 1980 will soon be subsidized by taxpayers of the United States and local governments in the amount of \$4 billion. The NERA study should be reviewed and brought up to date by an appropriate Federal agency so that Congress and the Nation's taxpayers will know the present size of this subsidy. The taxes of all the people made possible the CVP and other Federal water and power projects in the United States. All the people should benefit from their investment, not just those who happen to be customers of preference agencies.

Any review of Federal electric power rates should take into account this increasing burden on taxpayers who do not share in the benefits of Government power sold at less than its true cost.

Moreover, the need for conservation of energy which will be with us during the foreseeable future justifies elimination of any subsidy which encourages increased demand for electric power.

In the copies of my statement submitted, the date was 1976. It was a misprint and it should be April 25, 1978, Mr. Chairman.

Thank you.

[Mr. Kuder's prepared statement follows:]

STATEMENT BY PACIFIC GAS & ELECTRIC CO. BEFORE THE HOUSE OF REPRESENTATIVES SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS OF THE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE ON THE PROPOSED CENTRAL VALLEY PROJECT RATE ADJUSTMENT

Pacific Gas and Electric Company (P.G. & E.) is pleased to have this opportunity to present our views concerning the proposed Central Valley Project (CVP) power rate adjustment (CVP Rate Adjustment).

Congressman Moss' letter of April 18, 1978, to P.G. & E.'s President, John F. Bonner, stated that these hearings would address various issues concerning the interim and final CP rate adjustments. Namely, the assumptions and accounting methodology used in the repayment study, the appropriateness of the rate setting process, the size of the final rate and historical and physical factors that should be considered in the final rate.

Concerning the first two areas of investigation, the rate making methodology and procedure, P.G. & E. has only a brief comment to offer. We believe that the CVP is in need of a rate increase.

We have pointed out in our December 22, 1977, written comments in the CVP Rate Adjustment proceeding that we do not endorse, all the assumptions used by the Department of Energy (DOE), Western Area Power Administration (WAPA) in the repayment study. Many of WAPA's assumptions result in lower rates than would more conservative assumptions. We also wish to point out that the CVP Rate Adjustment does not consider other factors such as conservation and elimination of taxpayer subsidies, which would demand a higher CVP rate than the one proposed.

P.G. & E. has no quarrel with the procedures used by DOE and WAPA in the CVP Rate Adjustment process. We have found the procedures to be a reasonable way of giving all parties an opportunity to express their views. To confirm this, one need only look to the record in the rate adjustment proceeding, which now contains literally thousands of pages of hearing transcripts and written argument addressing all relevant issues.

There have been numerous public hearings where interested parties were given an opportunity to question WAPA and DOE officials concerning the rate adjustment and to present oral argument. Further, the procedures have provided an opportunity to submit comments in writing. For four years the various customer groups have taken full advantage of these opportunities.

In considering the second two areas of investigation, the historical and physical factors affecting the final rate and the size of the rate, there are two matters concerning P.G. & E. which have been the subject of discussion in the CVP Rate Adjustment proceeding that seem appropriate for discussion here. These are (1) the rate P.G. & E. pays for the power CVP imports from the Northwest (Centralia), and (2) Project Dependable Capacity (PDC). These matters have been discussed at length before Congressional committees in 1974 and during the ongoing CVP Rate Adjustment proceeding. Further, P.G. & E. submitted its views on these matters to the Director of Audit and Investigation of the Department of the Interior in March 1978, and on the Centralia rate to the Comptroller General in October 1977. Copies of P.G. & E.'s statements concerning PDC and Centralia have been supplied to your staff. Therefore, this statement will only summarize our views on those matters.

I. BACKGROUND

The Centralia rate and PDC are only two of the elements among many that in combination make up the single function carried out by WAPA in acquiring and disposing of electric power in connection with the CVP. These two elements must be considered with the other elements in order to analyze in a meaningful way their effect on the proposed rate adjustment.

The Centralia and PDC issues arise from the contractual relationship between the United States and P.G. & E. The contract underlying this relationship (Contract 2948A), executed on July 31, 1967, continued and expanded upon an earlier contract arrangement which was entered into in 1951 and was to terminate on April 1, 1971. Under Contract 2948A the CVP receives firming support and reserves which permit it to serve twice as much preference customer load as it could otherwise serve. We have estimated that this will result in an overall savings to the preference customers of about \$213 million for the period 1971-1981. Their savings over the life of the contract will be far greater.

Any analysis of the contractual arrangement between the United States and P.G. & E. must recognize two very significant benefits provided to preference customers.

The first benefit is derived from Energy Account No. 1. That account was originally established in the 1951 contract. P.G. & E. agreed to carry the account forward into Contract 2948A, thereby extending a very valuable benefit to CVP which otherwise would have been lost when the 1951 contract expired in 1971. WAPA can buy energy from this account at far less cost than from Centralia or any other source.

The second significant benefit springs from the other two bank accounts in Contract 2948A, Energy Account No. 2 and the Capacity Account. These accounts provide that WAPA can sell variable and unpredictable power to P.G. & E. when there is a surplus available. At a later time, when WAPA needs power to serve the preference customers, it can "withdraw" as much power as it needs from the accounts. The power it "withdraws" is firm power, backed up by the entire P.G. & E. area system. It is far better than the power originally "deposited." Nevertheless, WAPA is only required to pay P.G. & E. the same price charged P.G. & E. when the power was banked, plus an adjustment to reflect changes in production costs and a modest service charge. To the extent that power is sold into the bank account at less than WAPA's cost, the so-called loss is recovered when the power is unbanked at a lower repurchase price. The assured market and continuing source of low cost power provided by P.G. & E. though the banking arrangements are significant benefits indeed. This should be kept in mind when considering the two specific items, the Centralia rate and PDC, discussed below.

II. RATE TO PG&E FOR CENTRALIA POWER

At the outset it should be clear that P.G. & E. does not consider the rate charged P.G. & E. for Centralia power to be a relevant issue in the CVP Rate Adjustment proceeding. P.G. & E. has purchased WAPA's surplus Centralia power for two years under a binding agreement with the United States. Accordingly, the Centralia rate question is moot. Nevertheless, we offer the following comments in support of the Centralia rate agreement.

The rate charged P.G. & E. for Centralia power since April 1, 1976, is "fair and equitable" as required by Contract 2948A and permits WAPA to recover its full costs by allocating those costs to the customer group using the power.

The Centralia rate issues were not only whether WAPA should recover its costs, but also whether the several million consumers served by P.G. & E. should pay for power used by the power consumers of the relatively few preference customers served by CVP. In a telegram to the Secretary of the Interior on February 10, 1976, the President of the California Public Utilities Commission stated:

"There is no justification in law or public policy for such discrimination against the six million non-preference power consumers in Northern and Central California.

We urge you to reconsider this drastic move and to adopt and announce a policy of allocating the cost of Centralia capacity to the consumers who use it."

The so-called "split-rate" adopted by the Secretary accomplishes this goal. Moreover, the rate represents a full cost of service rate for the power sold to P.G. & E.

Consideration of WAPA's costs of the Centralia power sold to P.G. & E. also requires examination of the character of that power. Inasmuch as reliability is a key to the value of a power supply, the value of an unpredictable supply is considerably below that of power which can be counted on in advance.

WAPA purchases Northwest capacity having 80 percent capacity factor energy. This is high quality power, and its quality is reflected in the price WAPA pays for it. WAPA resells this power first, to the preference customers to the extent it is needed by them, and second, whatever is left (if any) to P.G. & E. The preference customers can purchase capacity and energy in any combination that is needed to meet their loads. P.G. & E. must purchase whatever capacity and energy are left after the preference customers are provided for. Often what it gets is capacity with little or no energy.

Accordingly, the preference customers receive a better product than WAPA buys from Centralia, and P.G. & E. receives a poorer one. Any calculation of WAPA's cost of those two wholly different qualities of power must reflect this situation. The GAO report, which erroneously alleged a \$73 million loss to the government on sales of Centralia power to P.G. & E. between 1971 and 1976, ig-

nore the above facts. Cream and skim milk do not sell for the same price, although they come from the same source.

P.G. & E. has explained that the "value" (price) of capacity is related to the amount of energy which accompanies that capacity. P.G. & E.'s customers should not be charged high base-load capacity rates for Centralia capacity without the offsetting benefit of purchasing base-load quantities of energy at reasonable rates. If the large quantities of energy that normally accompany base-load capacity are not available for sale to P.G. & E., then the "fair and equitable" standard of the Contract would require that the rate for Centralia capacity be reduced accordingly. The rate agreed to by DOE and P.G. & E. reflects this difference in quality by charging Centralia "pass-through" capacity costs for that portion of capacity associated with energy at a 60 percent capacity factor. The balance of the capacity, without energy, is sold at a lower rate.

Therefore, the rate agreed to by DOE and P.G. & E. recognizes this difference in quality by accurately reflecting the Department's costs related to the power P.G. & E.'s customers actually receive. This is true even without considering the other benefits received by WAPA from P.G. & E. under Contract 2948A.

In light of the above analysis, it is clear that the Centralia rate meets the "fair and equitable" standard of Contract 2948A, even when the rate is subjected to the "alternative cost" test suggested by some of the preference customers. In P.G. & E.'s June 26, 1976, written comments in the CVP rate adjustment proceeding we pointed out that, compared to alternative costs, the preference customers' total benefits between 1971 and 1981 under the "split-rate" would be \$212,884,000, while the benefits to P.G. & E.'s customers would be only \$76,155,000. Under the so-called "pass-through" rate, the difference in benefits would be even more inequitable, i.e., \$240,715,000 for the preference customers versus \$51,430,000 for P.G. & E.'s customers.

As an additional point, the Centralia rate for the 1976-1981 period does not take into account the so-called "losses" from sales to P.G. & E. during the 1971-1976 period. As we have pointed out, WAPA buys back the power it sells to P.G. & E. at a price based on the sale price to P.G. & E. Therefore, if the sale price to P.G. & E. is low, the repurchase price is also low.

In this connection we point out that P.G. & E. makes no profit on the power it purchases from CVP. The cost of this power is an operating cost like, for example, the cost of oil or other fuel. Under utility regulation, the Company can attempt to earn a return only on its prudent investment of capital in generating plants or other electric facilities. Power purchased by the Company is resold to its customers at the same price the Company paid without any mark up. To the extent that such power costs less than power from other sources, not the Company benefit from the transaction.

As a final point, GAO estimates show that the Centralia rate charged P.G. & E. has a relatively insignificant effect on the proposed rate when compared to sales of Centralia power to the preference customers. Since the April 1, 1976, increase in the rate to P.G. & E. for Centralia power, the rate charged P.G. & E. has been far higher than the rate charged the preference customers. Moreover, most of the Centralia power will be purchased by the preference customers, not P.G. & E., between April 1, 1976, and the termination of Centralia purchases by WAPA at the end of 1981. According to GAO there will be prospective "losses" on sales to the preference customers of about \$214 million, and \$12 million on sales to P.G. & E. In fact, there will be no loss on sales to P.G. & E. at the split-rate.

In summary, the split-rate for the Centralia power meets all the requirements of Contract 2948A and permits WAPA to equitably recover its costs from the consumers of all CVP customers, once WAPA increases its rates to the preference customers.

III. PROJECT DEPENDABLE CAPACITY

WAPA's CVP Rate Adjustment study has been criticized on the grounds that its assumed levels for PDC are too low.

The dependable capacity of a hydroelectric plant is generally defined as the capacity the plant is assured of having available during the most adverse hydrologic period of record. Thus, dependable capacity (e.g., PDC) determines the amount of capacity the project owner can count on to use or market, even under the most severe hydrologic conditions; the project owner can defer investment in additional generation and be reasonably assured that even in a severe drought he will be able to meet his power commitments. This also applies to a purchaser of firm power from the project owner.

PDC represents the amount of dependable CVP capacity WAPA has available to market. PDC was originally established by Contract 2948A at 875 megawatts.

It was increased to 025 megawatts when the Trinity Project tests were completed. It was not changed again until 1975 when, by a letter-agreement dated January 22, 1977, the parties agreed gradually to reduce PDC for the years 1975 through 1979, primarily because of increases in project load.

The recent drought in California caused WAPA to declare a reduction in PDC to 554 megawatts as of July 1, 1977. Therefore, under the present criteria for operating the CVP, WAPA can now only rely on 554 megawatts being available at all times, and P.G. & E. can count only on the same amount in developing future generating resource plans for Northern and Central California.

On July 12, 1977, WAPA requested that a redetermination study be performed to see what adjustment, if any, should be made to the 554 mw figure. P.G. & E. agreed. Under Contract 2948A, any adjustment would not take effect until five years following the date of the request (i.e., July 1982) unless the parties agree otherwise. In a letter dated April 19, 1978, WAPA requested that P.G. & E. waive the five-year provision and increase PDC effectively July 1, 1978, stating that it would require about two years to complete the studies required for a PDC redetermination.

P.G. & E. has not yet answered WAPA's letter. However, our initial reaction is that the request is premature. The parties should be given an opportunity to complete a reasonable engineering review of the drought and its effect on PDC before being asked to increase PDC.

The two-year drought, albeit an unfortunate event, has clearly shown that the previous assumption regarding hydrology were unrealistic and resulted in PDC levels which were too high. Thus, in effect, WAPA had been marketing more "dependable" capacity than it really had. P.G. & E. adjusted its resource planning to recognize the availability of only 554 megawatts in a critical year instead of 849 megawatts previously assumed to be available in 1977. To compensate for this loss of nearly 300 mw of CVP dependable capacity, P.G. & E. may have to invest in alternate generation or purchase capacity. For example, P.G. & E. was required to purchase capacity from others during 1977.

P.G. & E. is willing to work diligently with WAPA in studying the effect of the drought on PDC. However, it must be recognized that these studies will take some time to complete. The progress and ultimate competition of the current redetermination study are controlled largely by the amount of time required to assemble and study necessary data. Before the effect of the drought can be assessed, the hydrologic data for the 1976-1977 drought period and a reasonable period thereafter must be assembled. Further, in order to make an accurate evaluation of PDC we must know what changes, if any, the USBR might make in its water operations policy as a result of the drought. P.G. & E. requested this information of WAPA.

Until a full analysis is made, and all factors are considered, it would be too soon to say whether it would be appropriate for P.G. & E. to agree to waive the five-year contract provision. We suggest that the prudent course would be for both parties to proceed expeditiously with the redetermination studies. Appropriate decisions can be made when all the facts are in and studies are completed.

IV. CONCLUSION

Even if CVP power rates are increased as proposed by WAPA, the general public will suffer. National Economic Research Associates, Inc. (NERA) in 1967 estimated that federal power sold at less than its true cost by 1980 will soon be subsidized by tax payers of the United States and local governments in the amount of four billion dollars. (Hearings, on H.R. 14221, House Interior Subcommittee, May 20, 1974, pp. 135-146.) The NERA study should be reviewed and brought up to date by an appropriate federal agency so that Congress and the nation's tax payers will know the present size of this subsidy. The taxes of all the people made possible the CVP and other federal water and power projects in the United States. All the people should benefit from their investment, not just those who happen to be customers of preference agencies.

Any review of federal electric power rates should take into account this increasing burden on tax payers who do not share in the benefits of government power sold at less than its true cost. Moreover, the need for conservation of energy which will be with us during the foreseeable future justifies elimination of any subsidy which encourages increased demand for electric power.

Mr. Moss. Mr. Davidson?

TESTIMONY OF DANIEL I. DAVIDSON

Mr. DAVIDSON. Thank you, Mr. Chairman.

May I ask that before I summarize my statement I might make one brief comment with regard to Mr. Frizzell's testimony and supply one element of relevant information?

Mr. MOSS. Yes; you may.

Mr. DAVIDSON. Mr. Frizzell's testimony this morning constantly went beyond the question of the amount of loss the Treasury suffered on sales to P.G. & E. to point out figures which showed a lesser loss, but still a loss, on sales to preference customers.

What Mr. Frizzell did not state, and hearing Mr. Frizzell it is quite possible he might not have known this, is that every dollar lost from preference customers will ultimately be paid back by preference customers. The law requires it. It is being done. That is not true of P.G. & E.

The second point I would like to make is that yesterday the Department of Energy conducted a public information forum on the Central Valley project rate increase.

At that forum I asked the representatives of the Department of Energy whether any official now in the Department of Energy would support Mr. Frizzell's decision. The answer was no.

Mr. Chairman, we are very much aware and grateful for your efforts over many years to uphold the preference laws by protecting the rates of preference customers.

In my prepared statement I refer to selected examples from your many, many efforts.

As you know, from your long personal involvement, the history of the Bureau of Reclamation's efforts to protect the rights of the preference customers and to assert the rights of the United States against Pacific Gas & Electric Co. is a sorry one. I regret having to report to you today that that dismal performance is continuing to a considerable extent.

In my statement I have many specific criticisms for the lack of zeal, energy, and initiative displayed by the former Bureau, now the Western Area Power Administration, of the Department of Reclamation.

What I did not properly emphasize in my prepared statement, and which became even clearer after hearing this morning's testimony, is that they have spent long years working under Mr. Frizzell, and I suspect that their instincts are stronger and firmer than that allowed by their superiors.

It is my hope now, with the new administration and new Department of Energy and new responsible officials in Washington that at long last rates might be developed which are fair to the Treasury, preference customers, and Pacific Gas & Electric Co.

I go into this somewhat in my prepared statement, procedural deficiencies. I discuss this somewhat at the conclusion. It is not useful to burden the record at this point.

I would like to discuss some failures of Government officials to protect the public interest. These are set out at some length in my prepared statement. Actual excerpts from transcripts of forums are quoted and demonstrated. Many can still be remedied at this date given the proper orders from the Department of Energy in Washington.

In January of 1975, P.G. & E. and the Bureau signed a letter agreement lowering the amount for project dependable capacity, but providing that this lowered amount could be revised as appropriate, retroactive to January 1, 1975.

On October 5, 1977, at a public information forum, a consultant to NCPA and SMUD asked a WAPA official whether P.G. & E. had furnished information to WAPA on its loads and resources that would enable WAPA to judge whether the present figure for project dependable capacity properly reflects the value of project capacity or energy in meeting area load. The official's response was no.

He was asked whether WAPA had sought such information. The answer again was no.

It later was disclosed that some such information had been sought but not obtained from P.G. & E. Certainly P.G. & E. as a Government contractor, should be required to furnish such information which is not available from any other source, and WAPA should proceed, exercise its rights to seek a retroactive determination.

As of this date, in terms of a redetermination, that January 1, 1975, nothing has been done.

At that same hearing I pointed out that years ago I had supplied the Bureau of Reclamation with a P.G. & E. internal memorandum which, if it is accurate, indicated that P.G. & E. knowingly misled the Bureau as to usability of its hydro capacity and that if its memorandum was accurate the Government had been improperly deprived of millions of dollars.

The memorandum is quoted at pages 8 and 9 of my statement. I read those quotes:

In discussions with the Bureau of Reclamation in connection with the Auburn Project and the State of California in connection with the purchase of Oroville power, we have stated that additional peaking capacity from these projects could not be used before 1985.

As a practical matter, however, we believe that all the area's hydro capacity could be considered fully usable by 1975 and that there would be room for controlled amounts of additional peaking capacity after that time.

I asked the Bureau official, after years had passed, what he had done with that document which tended to resupport the decision of the Central Valley project, that the Project Dependable Capacity should be far higher.

His response was:

This document would tend to support someone's idea as to what the company might be able to do and it does not indicate whether or not it is an official company document or who put the document out.

My response was that I fully agreed. "Why didn't you ask them?"

He said:

I have not had this document available to me as a—well, as a matter of fact, Mr. Davidson, the document may have been made available to me, I am not denying that. . . .

I said:

This document seems to say that we (P.G. & E.) told the Bureau A but B is the truth, and you have never asked them whether they misled you?

The rather incredible response from the official was:

They did not mislead me, Mr. Davidson, because I was not a party.

This is a statement by an official of the Central Valley project. The colloquy continued at some length. He adds:

I am not trying to be obstructive or anything of course, but . . . this (document of P.G. & E.)—fortunately we have managed to obtain it and give it to you—strongly supports the position that it would advance the interest of the United States and you have never thought it worthwhile to ask P.G. & E. to give you an explanation of this document; is that the situation?

The response was:

If that is the way you interpret it, I guess it is.

We asked:

I would like to hear your interpretations of it.

The official's final response was:

I think at this point I have made myself fairly clear in this matter and I don't know anything else I can say, Mr. Chairman, in this regard.

Indeed, he made it clear.

I asked the same question yesterday, as to whether anything had been done. Nothing has been done.

At the public information forum of November 3 I informed a legal official of the Department of Energy that it was our considered legal judgment that the Department was submitting a monthly bill to P.G. & E. which understated the amount owed the United States by very large sums, millions of dollars a year, and in my view a legal opinion is required on the issue of whether Project Dependable Capacity should be lowered from 925 megawatts to 554 megawatts without filing at the Federal Energy Regulatory Commission.

That legal official replied, "Mr. Davidson, I think you have made a good point and we will have a legal review made of this issue."

Some 5½ months have now passed, and yesterday at the forum I asked whether a legal review had been made. The answer was no.

If our position is correct, the Treasury is suffering a monthly loss of not less than \$278,000, and after May 1 may be incurring a loss of up to \$1.5 million per month.

After recognizing the need for a legal opinion, after 5½ months, nothing has been done.

Under the original P.G. & E. contract with the Bureau, if Project Dependable Capacity dropped because of insufficient water, that lower figure was to be maintained for 4 years.

However, the United States voluntarily agreed to extend that period to 5 years. It appears from the statements of Mr. Hoffner, and fully supported in the transcript, that an amendment was agreed to by the United States with the expectation it would apply in other situations, and without receiving anything of value in return from P.G. & E.

I asked about the Bureau official, "Was this agreed to by the Bureau as an accommodation to P.G. & E.?"

The official replied, "You may refer to it as an accommodation. We thought it was the type of thing that people operating in utility situations do."

I really doubt whether it is customary for people operating in utility situations to give away \$5 million, which is the impact of that accommodation. Those \$5 million properly belong to the Treasury of the United States.

Furthermore, it appears that this amendment to the contract was agreed to without receiving legal consideration, and it is therefore invalid. Despite the further fact that this revision of the contract was made without the necessary filing at the Federal Power Commission, there is no indication that the Department of Energy has even considered challenging it.

This committee, I understand, has now explored the decision by nonexpert over the judgments of all the subordinates with these responsibilities. I will not discuss this giveaway further but I will recommend strongly that the Department officials, the harried Department officials, declare that the previous Centralia decision was arbitrary, capricious, beyond the power of the official making it, and I believe they would require some \$74 million, plus interest, which P.G. & E. properly owes the Treasury. This would eliminate any need for any rate increase at this point.

Amazingly enough, however, the blue brochure which governs the rate increase shows what Mr. Greene described. The assumption in the blue brochure is that Mr. Frizzell's approach will continue.

I raised this at yesterday's hearing. I believe the official in Washington was rather surprised by this. He was one of those who did not defend the decision. I think he will see what he can do to change it. At the very least it should be assumed that in 1981, only 9 months left of the contract at that point, that P.G. & E. should pay its full costs for those 9 months plus the losses incurred by the Treasury for the preceding 5 years with interest.

Why has the Department been so remiss in enforcing the public's interest? We asked:

Why do you usually play the role of the reasonable man towards P.G. & E. while P.G. & E. protects its economic interests to the hilt?

A legal officer of the Department replied:

It is because we work with P.G. & E. just as much as we work for you, as much as we work for the taxpayers and all the rest of the citizens of the United States, and we have to bend over backward to be reasonable in all of our dealings with all of the citizenry.

I then asked:

You do not regard yourself as having the greater obligation as, in effect, trustee for the preference customers than you have to investor-owned utilities?

The response was no. The rest is shown at page 17 of my statement.

I asked:

If P.G. & E. acts unreasonably you still have to act reasonably in each instance disregarding its past conduct?

The response was:

I say that if our customers act unreasonably, we still are expected to act reasonably.

One obvious comment is that the preference customers never have been given the privilege of negotiating with the Bureau. The Bureau promulgates and we must either accept or challenge in the courts.

What I find shocking in the statement is that the Government has to bend over backward in being reasonable with P.G. & E. I believe this committee knows the history of P.G. & E. and its relations better than I. P.G. & E. never has been bashful in its economic interests.

The task, I submit, of officials with the Department of Energy is to bargain just as vigorously with P.G. & E. as P.G. & E. bargains with them.

One basic premise contained in the blue brochure, and this is the basis for the current ratemaking proceeding, is that it is unlawful for the Department to promulgate a rate that will not cover its operating expenses each and every year. This was discussed at hearings in which you participated, Mr. Chairman, in January 1974.

The committee at that time had the view of the Comptroller General. This is reported at pages 410 and 412 and does not support the no-deficit-year concept at all.

I have a statement covering this on page 19 of my statement.

There is one great difficulty in the Department's saying you cannot run a no-deficit year. Every year since 1973 they have been running a deficit in operating costs. Furthermore, just this year, the Department handed down an interim rate decision and it provides for continued deficit in operating costs.

If they can't run a deficit, I submit that responsible officials of the Department of Energy have no alternative but to tell this committee, and through this committee the Congress of the United States, that since at least 1973, and continuing at least through 1979, they have been and are in violation of the applicable law. Of course, they have not been.

The Department undoubtedly will suggest that special circumstances make this deficit lawful. Indeed, at the hearings I referred to, the responsible Assistant Secretary acknowledged that special circumstances could justify reasonable period of deficit years. Indeed, the very author of the Assistant Solicitor's opinion agreed with the conclusion of the Comptroller General that:

It appears that at the time the present repayment policy was considered by Interior and by the House Committee on Interior and Insular Affairs neither considered a deficit year to be contrary to the requirements of the Reclamation Act of 1939.

The author of that opinion agreed that this was an area where law, equity, and policy come together, and that 1 year of deficit could be OK and under some circumstances 10 years were considered to be too much.

I think it is totally clear that unusual circumstances then relied upon by the Assistant Solicitor to justify a continuing operating deficit were that Interior had not raised the rates to Central Valley project for 25 years and then all of a sudden was considering a 50-percent rate increase.

Now, there has not been a rate increase in 28 years and increases up to 300 percent are being considered.

More importantly, the current temporary deficit position is caused almost entirely by the impact of the worst drought in California history.

The Centralia contract expires at the end of 1981. After that time the Bureau for a number of years will obtain low cost energy, 2.81 mills.

Over the few years after 1981, instead of running large deficits because of purchased power, the purchased power account is expected to show a net profit approaching \$100 million.

Furthermore, the problem arising from the purchased power account is totally unprecedented in Federal power marketing. Certainly, under these conditions it is reasonable to propose a rate that will eliminate any operating deficit.

The averaging concept inherently in repayment requirements does not require or even suggest raising the rates now and lowering them in 1981.

As I said, even on the dubious assumption that no operating deficit can be run in any single year, the current rate level contained in the blue brochure is clearly excessive. Basically, as applied in the blue brochure, the rates are being established for a multi-year period ending in 1981.

This means that the amount of revenues required to avoid an operating deficit in the year 1981 sets the revenue level for 1980 and 1979.

If, however, the increase was to be in steps such that 1979 revenues were sufficient to avoid an operating deficit in 1979, 1980 revenues being raised to a level sufficient to avoid an operating deficit in 1980 and 1981 revenues being raised to a level sufficient to avoid an operating deficit in 1981, the rates to preference customers would be reduced by millions of dollars.

At the top of page 23 I discuss \$1 million and more of excess revenue, and the Department commented on that. That was discussed at the hearing of yesterday. I am pleased to report it looks as if CVP will remedy that defect and reduce over \$1 million.

In December of 1977, R. W. Beck and Associates, consulting and engineering experts employed by NCPA and SMUD, submitted a report which corrected various methodological and other deficiencies contained in the blue brochure.

In the Assistant Secretary's proposed interim rate decision of January 4, 1978, it is stated at page 5 that, "The R. W. Beck study makes adjustments in the estimates of annual operating costs during these years (1979-1981) which we believe are reasonable for the purposes of setting a subsequent interim rate (although not necessarily for setting the final rate)."

It seems clear that from this point on, discussion should be based on the Beck figures and not on those prepared by the Bureau. Making these corrections alone would decrease the needed revenues by as much as 20 percent.

On page 24 I discuss the need to revise the blue brochure and take into account the period of heavy rain. This means P.G. & E.'s projects will receive more revenues.

Figures were given out yesterday by WAPA which do this. I have not been able to examine whether they are technically accurate but I am pleased to say that the concept of bringing the figures up to date reflect the increased revenue that will come from increased water and increased electric production and this was voluntarily adopted yesterday.

On the issue of Project Dependable Capacity, which determines the amount of revenues the Bureau receives for the capacity it sells to P.G. & E., PDC is currently at 548 megawatts. This figure is used in the blue brochure for a 5-year period.

As I previously stated, it is our legal position that the figure has never legally been reduced from 025 megawatts.

If the Bureau used 925 megawatts in its brochure, the amount of revenues it would require from the preference customers would be reduced by millions of dollars.

Some way must be obtained to get a legal position. The Department should ask its general counsel or do something to get a legal opinion.

WAPA now has proposed to P.G. & E. that since the drought is over and the Bureau is capable of maintaining, in its judgment, at least some 825 megawatts starting on July 1, 1978, that P.G. & E. agree to increase PDC to that amount.

In short, the Bureau has proposed that P.G. & E. agree to pay for what it will receive. No reply has yet been received. It seems clear from Mr. Kuder's statement it is their position that the matter should be studied for a few years. That is no help to the preference customers. The Bureau is still studying its right for a retroactive determination. I don't know in what decade there might be a decision on this matter.

As I also stated, the Bureau, as an accommodation, perhaps leaning over backward again, agree with P.G. & E. to increase the number of years from 4 to 5 during which PDC would remain at the low level. This was done without receiving any compensation from P.G. & E.

At the very least, the Bureau should take the position that this amendment to the contract was without consideration and a nullity. This would at least mean that revenues would be significantly increased during the last few months of the repayment period with the consequent lowering of revenue needs from preference customers.

I have already suggested what I hope the Department of Energy now will do to try to retrieve the damage inflicted by Mr. Frizzell's \$90 million giveaway. If that is voided, I believe this rate increase to preference customers would be unnecessary.

I mention again the blue brochure given away. This is covered on page 26 of my statement.

I have discussed various procedural deficiencies, a series of procedural deficiencies, failures on the part of Government officials to properly protect the interests of the United States and the preference customers and substantive deficiencies in the blue brochure, many of which are virtually undisputable.

I recommend that the Department of Energy should obtain a legal judgment as to whether or not PDC has ever been validly reduced. Unless the Department receives a legal position, it will be able to come to a clear conclusion that a decrease can be valid without a filing at the FERC, it should act on the assumption that PDC is at 925 megawatts and if P.G. & E. refuses to pay, litigate the issue.

The Department has asked P.G. & E. immediately to be increased by less than 300 megawatts.

A very important recommendation is that P.G. & E. should be required to supply all information needed or useful to permit calculations as to the proper value of the capacity it receives from CVP to the area system. There is no way to determine, as P.G. & E. acknowledges, without having the information available. If P.G. & E. refuses, the Department should consult the Department of Justice, and if necessary this committee should consider using its subpoena power.

A very important step should be taken to develop proper procedures. I don't even know the procedures being followed at this point. This was one of the reasons Judge Gesell referred to the 1973 increase, and we have the same problem again.

Because of the long history of the Bureau's errors, illustrated by the fact that in every succeeding rate schedule they adopted more and more positions of preference customers, the Bureau should be required to revise and publish a new brochure making the following general changes:

One, deficit years should be permitted, or alternatively, the rate increase should be in multiple steps with revenues in the pinch-point year being precisely sufficient to cover any operating deficit and no more;

Two, positions contained in the Beck report which were adopted for purposes of setting the interim rate should be accepted;

Three, calculations should start with the current amount of water stored in the dams and the mountains;

Four, realistic compensation should be obtained from P.G. & E. for Northwest power, a least after April 1, 1981;

Five, PDC should be based on realistic assumptions retroactive to January 1, 1975.

When a new brochure is published containing these changes, the WAPA should be required to defend them in precisely the same manner any other utility is required to defend a proposed rate increase before the Federal Energy Regulatory Commission. WAPA officials should be required to submit testimony and undergo cross-examination. We are confident that through the time-tested method of cross-examination, the various additional fallacies underlying WAPA's current position can be exposed so that new decisionmakers in the Department of Energy will have the record and the information they need to render a realistic decision which is fair to all interested parties. That is all the preference customers ask. They are entitled to no less.

Thank you for your courtesy for hearing me at such length.

[Mr. Davidson's prepared statement follows:]

STATEMENT OF DANIEL I. DAVIDSON, SPECIAL COUNSEL TO THE NORTHERN CALIFORNIA POWER AGENCY AND THE CITIES OF BIGGS, PALO ALTO, REDDING, ROSEVILLE, AND SANTA CLARA, CALIF. AND THE PLUMAS-SIERRA RURAL ELECTRIC COOPERATIVE BEFORE THE U.S. HOUSE OF REPRESENTATIVES SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS OF THE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE

This statement will discuss the concern felt by the Northern California Power Agency ("NCPA") as a result of a long and continuing series of acts and failures to act on the part of government officials and their predecessors administering the rate setting process of the Central Valley Project. NCPA and its members, the Cities of Biggs, Palo Alto, Redding, Roseville, and Santa Clara, California and its Associate Member, the Plumas-Sierra Rural Electric Cooperative, are preference customers of the Central Valley Project.

We are very aware, Mr. Chairman, of your efforts over many years, to uphold the preference laws by protecting the rights of preference customers. We are grateful for such efforts because without them we know that preference customers would be in an even worse position than they are today. We are appreciative of the fact that the City of Roseville received an allocation only after the Committee on Government Operations initiated an investigation into Roseville's complaints about the Bureau's refusal to supply CVP power to it. (See H. Rept. 218, 85 Cong., 1st Sess. (March 25, 1957), entitled "Availability of Power to Public Preference Customers from Central Valley Project"). As a result of that Committee's March, 1960 hearings, we know the City of Redding received an allocation. Those hearings which led to the twenty eighth Report by the Committee on Government

Operations entitled "Sale and Transmission of Power (Bureau of Reclamation) Central Valley Project, California" (1960), are yet another example of constructive Congressional concern for the rights of preference customers. Most recently, on January 22 and 23, 1974, you were a major figure in the Hearings before a Subcommittee of the Committee on Government Operations, House of Representatives, 93rd Congress, 2nd Session on Power Rate Increases (Bureau of Reclamation, Central Valley Project, California). Similar hearings were held on May 17 and 20, 1974 before the Subcommittee of Water and Power Resources of the Committee on Interior and Insular Affairs, House of Representatives, 93rd Cong., 2nd Session, on Review of Electric Power Increases under the chairmanship of Congressman Harold J. Johnson, of California. As a result of those hearings, NCPA obtained evidence which was extremely useful in the suit it successfully brought to have the rate increases promulgated by the Department of Interior on November 1, 1973 vacated as violative of the Constitution and of the Administrative Procedure Act.

As you know from your long personal involvement, Mr. Chairman, the history of the Bureau of Reclamation's efforts to protect the rights of its preference customers and to assert the rights of the United States against Pacific Gas & Electric Co. is a sorry one. I regret having to report to you today that that dismal performance is continuing. It is my hope that, with a new Administration, a new Department and new, responsible officials in Washington, at long last rates may be developed which are fair to the Treasury, to the preference customers and to Pacific Gas and Electric Company ("P.G. & E.").

For convenience of presentation, I will divide my statement into four parts. First, procedural deficiencies in the current rate increase proceeding. Second, failures of officials of the Department of Energy and their predecessors to vigorously pursue the rights of the government against P.G. & E. Third, substantive errors in deriving the CVP rate level suggested in the "Blue Brochure." Fourth, suggestions as to how the various problems I have identified can be remedied in the current proceeding. It is my hope that after the much needed exploration of the situation being undertaken by this Committee, the new officials of the new Department of Energy will voluntarily undertake to remedy the defects which exist to this date.

I. PROCEDURAL DEFICIENCIES IN THE CURRENT PROCEEDING

The current Central Valley Project rate increase proceeding was instituted in September, 1977 with the publication of a Blue Brochure entitled "Tentative Power Rate Adjustment" by the Bureau of Reclamation of the Department of the Interior. This was almost the last rate setting act of the Department of the Interior because, on October 1, its rate setting responsibilities were transferred to the Department of Energy. Hearings were held at which preference customers had an opportunity to question CVP and Washington officials, but because of the change of Department and officers, those officials at the hearings did not know the views of their new superiors. The original schedule did not provide sufficient time for the preference customers to exercise their due process rights of comment. Accordingly, after much resistance, the Department of Energy finally determined to issue not a proposed final but a proposed *interim* power rate. That decision constituted a proposal to be passed on by the Economic Regulatory Administration. A hearing was held, at which preference customers were allowed to comment on the proposed interim rate. Then an interim power rate decision was handed down by the Economic Regulatory Administration. Up until the very date of the interim decision by ERA, there were no procedural rules governing the method of establishing an interim rate and no substantive rule allowing the setting of an interim rate. Those rules were published in the Federal Register on the same day that the interim rate was promulgated. I submit that because of the failure to publish procedural and substantive regulations until the day of decision, the interim rate process was clearly illegal.

NCPA and others had proposed that procedures be established including such elementary hallmarks of administrative procedure as a rule prohibiting *ex parte* contacts and allowing cross-examination. To date such proposals have neither been accepted nor rejected. Although we are now in the midst of a proceeding to establish a final rate, we do not know such elementary matters as whether *ex parte* contacts are prohibited or whether cross-examination is allowed.

The current procedural regulations state that the final decision on a final rate will be made by the Administrator of the Economic Regulatory Administration. Although there have been indications in trade publications that this responsi-

bility is to be transferred to the Federal Energy Regulatory Commission, we have not been informed. We would conduct ourselves differently if we knew which organization will make the final decision. For example, if FERC is given that authority, it will presumably apply its own precedents. Perhaps more critically, if FERC is given decision making authority, we assume that WAPA will, or at least we strongly recommend that WAPA should be required to make the same filing and bear the same burden of proof as any other utility seeking a rate increase. It should be forced to make a detailed filing, to submit prepared testimony, and to withstand cross-examination at a hearing. However, the proceedings are wending their way forward without any indication of what the procedural requirements will be. Although we are being allowed to ask questions of whichever Department of Energy officials choose to appear for questioning at the single hearing scheduled, we cannot demand that any official with particular knowledge appear, we have no right of cross-examination, and we have been given no means of obtaining discovery or evidence from other parties.

A further procedural deficiency is the inability of the Department of Energy to inform us as to what rate structure they are proposing. The Blue Brochure contained two alternate rate schedules, one of which would result in uniform charges to all preference customers, the other of which would have some preference customers. Although these proceedings began in September, 1977, and so-called public information forums have been held, we have been unable to obtain any statement as to which rate structure is favored by the Department. The Department is even unwilling to characterize either of the rate structures as a proposal. Apparently, both rate structures have just been presented as bait for discussion. It is clear from the transcripts of the public information forum there are other rate structures at least equally meritorious that have not been suggested. Surely, after all these months, we are entitled to know what the Department has in mind. A rulemaking usually begins with a proposed rule, in this case a proposed rate, and we submit that to conduct these lengthy proceedings without a proposed rule is a violation of the Administrative Procedure Act and is grossly unfair to the customers.

Moreover, as I will show, it is clear that the Department no longer accepts the figures and approach contained in its Blue Brochure. Nonetheless, the proceeding is continuing on the basis of those figures. Despite the Department's disavowal of the Blue Brochure, it continues to hold hearings on those figures and refuses to publish a new brochure.

II. FAILURES OF GOVERNMENT OFFICIALS TO PROJECT THE PUBLIC INTEREST

In January, 1975, P.G. & E. and the Bureau signed a letter agreement lowering the amount for project dependable capacity but providing that this lowered amount could be revised as appropriate, retroactive to January 1, 1975. On October 5, 1977 at a public information forum, Mr. Norman Murray, a consultant to NCPA and SMUD, asked a WAPA official whether P.G. & E. had furnished information to WAPA on its loads and resources that would enable WAPA to judge whether the present figure for project dependable capacity properly reflects the value of project capacity or energy in meeting area load. The official's response was no. Mr. Murray then asked whether WAPA has sought such information from P.G. & E. The response was again no. It later was disclosed that some such information had been sought but not obtained from P.G. & E. Certainly P.G. & E., as a government contractor, should be required to furnish such information which is not available from any other source.

At that same hearing (at pages 106 and 112) I pointed out that years ago, we had supplied the Bureau with a P.G. & E. internal memorandum, which, if it is accurate, indicated that P.G. & E. knowingly misled the Bureau as to the usability of its hydro capacity and that if its memorandum was accurate, the Government had been improperly deprived of millions of dollars. That P.G. & E. internal memorandum stated clearly:

"In discussions with the Bureau of Reclamation in connection with the Auburn Project and the State of California in connection with the purchase of Oroville power, we have stated that additional peaking capacity from these projects could not be used before 1985.

"As a practical matter, however, we believe that all the area's hydro capacity could be considered fully usable by 1975 and that there would be room for controlled amounts of additional peaking capacity after that time."

At that public information forum, an expert pointed out "the phase 'considered fully usable' in this context appeared to indicate that the hydro capacity of the Bureau would be fully usable at a much lower capacity factor than is currently being considered in the determination of project dependable capacity should be far higher than it is now, and that the Bureau is currently losing millions of dollars each year."

We asked the following question: "My question is, we put in this and our other evidence, we have showed the Bureau is entitled to a better arrangement with P.G. & E., have you investigated these documents and asked P.G. & E. about them in the interim period of years?"

We also asked: "Doesn't this document tend to support the position that you are entitled to a better arrangement?"

The response from the official was: "This document would tend to support someone's idea as to what the company might be able to do and it does not indicate whether or not it is an official company document or who put the document out."

Our response was: "Yes . . . , I fully agree. Why didn't you ask them?"

The response was: "I have not had this document available to me as a—, well as a matter of fact, Mr. Davidson, the document may have been made available to me, I am not denying that. . . ."

We asked: "This document seems to say that we [P.G. & E.] told the Bureau A but B is the truth, and you have never asked them whether they misled you?"

The rather incredible response from the official was: "They did not mislead me, Mr. Davidson, because I was not a party."

We asked: "Mislead the government of the United States?"

The official: "I couldn't answer that question."

We asked: "You couldn't answer the question of whether or not you asked them?"

The Chairman: "You asked whether or not they misled the United States and he said he couldn't answer that question."

We responded: "I am not sure what the record shows. In other words you never asked them in any fashion that apparently a statement that they told you one thing while someone else believed the opposite was in fact true?"

The response was: "We have a letter from P.G. & E. in connection with our studies that indicated the annual capacity factor of about 10 percent may be usable in 1990. During our studies, we assumed that if it may be usable we had better plan on it. We have moved to have our studies on that basis."

We asked: "But this document suggests that it is 1975?"

The incredible response was: "We did not have a copy of this document from PG&E as an indication of what we may be able to expect."

We asked: "I am not trying to be obstructive or anything of course, but . . . this [document of P.G. & E.]—fortunately we have managed to obtain it and give it to you—strongly supports the position that it would advance the interest of the United States and you have never thought it worthwhile to ask P.G. & E. to give you an explanation of this document; is that the situation?"

The official replied: "If that is the way you interpret it, I guess it is."

We asked: "I would like to hear your interpretations of it."

The official's final response was: "I think at this point I have made myself fairly clear in this matter and I don't know anything else I can say, Mr. Chairman in this regard."

The discussion I have quoted appears in the transcript at pages 106 to 112. Mr. Chairman, I am certain that you and your colleagues will not consider this history as displaying the approach that should be taken by officials of the United States. An official who properly executed his duty would at least have inquired, and might have very well ended up by referring the matter to the Department of Justice for investigation.

On this matter, though it is a digression at this point, Mr. Chairman, I would like to note that in connection with the hearings held by the Subcommittee of the Committee of Government Operations in 1974, P.G. & E. submitted a statement which included the following paragraphs:

"Some low capacity factor peaking may be usable after 1985.

"The Bureau power rate adjustment study assumes 10 percent capacity factor operation for New Melones after 1990.

"Our studies of the peaking resources available in northern California indicates the presence of a surplus of low capacity factor resources, over that which could be absorbed under the load curve, until sometime after 1985. After that date, depending on load growth and the development of resources, some additional generation with capacity factors as low as 10 percent might be usable."

In connection with an antitrust investigation before the Federal Energy Regulatory Commission, NCPA quoted the above statement and submitted an interrogatory requiring P.G. & E. to "identify and describe each and every one of the foregoing 'studies' referred to in the foregoing statement." P.G. & E.'s answer was "This statement was based on general knowledge from many studies rather than any specific 'studies'." It may well be that P.G. & E. was following a practice of not answering responsively. The fact remains that we asked it to identify each study that P.G. & E. stated to the Committee showed that peaking power was not usable until after 1985. P.G. & E. has refused to identify any such study. Whether any such study existed is now an open question. It might, if you think it appropriate, be useful to ask the P.G. & E. representative to specifically identify any study on which the P.G. & E. representative could have referred in that testimony before the Committee. It will be noted, of course, that the internal memorandum contradicts the statement made to the Committee.

I return, after that digression, to my theme of this section of my statement—the Government's failure to protect the public interest.

This matter of proper project dependable capacity is a subject of great controversy between the preference customers and P.G. & E. Even WAPA takes the position that project dependable capacity has been established at an unreasonably low figure.

At the public information forum of November 3 (Tr. at 47), I told a legal official of the Department of Energy that it was our considered legal judgment that the Department was submitting a monthly bill to P.G. & E. which understated the amount owed the United States by very large sums (millions of dollars a year) and that in my view a legal opinion was required on the question of whether project dependable capacity could be lowered from 925 mw to 554 mw without a filing at FERC. That legal official replied: "Mr. Davidson, I think you have made a good point and we will have a legal review made of this issue." I have not been informed that a legal review has been completed. Some five and one-half months have passed since that legal officer stated "we will have a legal review made of this issue." If our position is correct, the Treasury is suffering a monthly loss of not less than \$278,000 and after May 1st, may be incurring a loss of up to \$1½ million per month. Possibly in the Western Area Power Administration or the Department of Energy, figures of this magnitude are too small for concern. To my clients, however, who ultimately are assessed for such deficiencies, the figures seem vast.

Under the original Bureau-P.G. & E. contract, if project dependable capacity dropped because of insufficient water, that lower figure was to be maintained for four years. However, the Bureau voluntarily agreed to extend that period to five years. At the public information forum of October 26, 1977 (Tr. pages 153–155), I questioned an official of the Bureau as to why this was done. It appears that this was done inadvertently for a different purpose and without receiving anything in return from P.G. & E. Because of his description, I asked the Bureau official, was this "agreed to by the Bureau as an accommodation to P.G. & E." The official replied (at Tr. 153) "You may refer to it as an accommodation, we thought it was the type of thing that people operating in utility situations do." I doubt whether it is customary for people operating in utility situations to give away five million dollars, which is the impact of that accommodation. Those five million dollars properly belong to the Treasury of the United States. Furthermore, although it appears that this decision was agreed to without receiving legal consideration, and is therefore invalid, and despite the further fact that this revision of the contract was made without the necessary filing at the Federal Power Commission, there is no indication that the Department of Energy has even considered challenging it. The assumption in their Blue Brochure is that PDC will remain at 554 now for five, not four years.

It is my understanding that the Committee will have explored the decision by political appointees of the Nixon-Ford administration to override the unanimous collective judgment of all their subordinates in approving the current give-away rate for the sale of Northwest power to P.G. & E. I will not, therefore, discuss it in any detail. I recommend strongly that the Department officials, none of whom will defend that decision, state that the previous Centralia decision was arbitrary, capricious, beyond the power of the official making it, and therefore void and that they recover the more than 74 million dollars, plus interest, which P.G. & E. properly owes the Treasury. This could eliminate any need for any rate increase.

Moreover, that rate will be up for revision as of April 1, 1981. At the least, the Blue Brochure should be revised to reflect a realistic figure for the nine month

period beginning April 1, 1981, a figure that should include five years of previous losses plus interest. However, the Blue Brochure does not contemplate any change in the rate to P.G. & E.

Mr. Chairman, I could go on and on showing how Government officials have failed to show any vigor in their dealings with P.G. & E. The losers are the Treasury of the United States and the preference customers. The attitude of the Bureau can perhaps most charitably be summarized by quoting the following excerpt from the transcript at the CVP public information forum of October 25, 1977. We asked: "Why do you usually play the role of the reasonable man towards P.G. & E. protects its economic interest to the hilt?" A legal officer of the Department of Energy replied: "It is because we work for P.G. & E. just as much as we work for you, as much as we work for the taxpayers and all the rest of the citizens of the United States and we have to bend over backwards to be reasonable in all of our dealings with all of the citizenry." I then asked: "You do not regard yourself as having the greater obligation as, in effect, trustee for the preference customers than you have to investor-owned utilities?" The response was: "No. Our obligation is to the people of the United States and to the Congress of the United States that passes the laws under which we operate." I asked: "If P.G. & E. acts unreasonably you still have to act reasonably in each instance disregarding its past conduct." The response was "I say that if our customers act unreasonably, we still are expected to act reasonably. This is true of our preference customers. It is true of P.G. & E.; it is true of everybody that we deal with. We feel that we have a higher standard of reasonableness by virtue of our position and as representing the federal government in a democratic society than private parties do, in their economic bargaining and negotiations." (Tr. pp. 93-95)

One obvious comment is that the preference customers do not negotiate with the Bureau of Reclamation. The Bureau promulgates and we either accept or challenge in the courts. But what I find shocking is the statement that the Government has to bend over backwards to be reasonable to P.G. & E. Mr. Chairman, you know the history of P.G. & E.'s relationship with CVP far better than I. P.G. & E. has never been bashful in asserting its economic interest. The task, I submit, of officials with the Department of Energy and their predecessors, is to bargain just as vigorously with P.G. & E. as P.G. & E. bargains with them. While there is nothing wrong with being "reasonable" when others are being reasonable, a position which calls for a "reasonable" approach to P.G. & E. is a little like the "reasonable" approach to the Danzig corridor problem or the Sudetenland. In situations where the legal rights of either party are not clear, there should either be an amicable and equitable compromise or the United States should be prepared to litigate the matter. I would further suggest that in dealing with P.G. & E., the Department of Energy consider the attitude of the Internal Revenue Service, rather than that of a man leaning over backwards to be reasonable. The posture is more comfortable, among other advantages.

III. SUBSTANTIVE DEFICIENCIES IN THE DEPARTMENT'S RATEMAKING

The basic premise of the Blue Brochure is that it is unlawful for the Department to promulgate a rate that will not cover its operating expenses each and every year. This view of the law is contrary to the view of the Comptroller General of the United States expressed in his report No. B125042 submitted to the Conservation and Natural Resources Subcommittee in 1973. The Comptroller General's opinion is reprinted at pages 410-412 of the hearings of that Subcommittee. He concluded "We believe that the no-deficit-year criteria is not consistent with the averaging concept inherent in rate repayment schedules and that it establishes a new criterion which is inconsistent with the 1963 repayment policy statement issued by the Secretary of the Interior." The Comptroller General pointed out that "a concise statement of the repayment policy embodied in the 1963 statement was set forth in an April 1, 1966 report by the House Committee on Interior and Insular Affairs."

On February 15, 1974 a memorandum from the Assistant Solicitor of Power to the Assistant Secretary Land and Water Resources of the Department of the Interior took a contrary approach. It is the Assistant Solicitors' opinion and not that of the Comptroller General which the Department insists on following. There is, however, at least one insurmountable difficulty with the Departments' position. Every year since at least 1973, CVP has been running a deficit in operating costs. Furthermore, the interim rate decision of this year provides for a continued asserted deficit in operating costs. If the opinion of the Assistant

Solicitor is to be accepted as correct, I submit that the responsible officials of the Department of Energy have no alternative but to tell you and, through you, the Congress of the United States that since at least 1973, and continuing at least until 1979, they have been and are in violation of the applicable law. I respectfully request that that question be put to them. Do they assert that the interim rate increase is in violation of law?

Possibly the Department may suggest that special circumstances may make an operating deficit lawful. In 1974 the responsible Assistant Secretary acknowledged that special circumstances could justify a reasonable period of deficit years. Indeed, the very author of the Assistant Solicitor's opinion agreed with a conclusion of the Comptroller General that "It appears, therefore, that at the time the present repayment policy was considered by Interior and by the House Committee on Interior and Insular Affairs neither considered a deficit year to be contrary to the requirements of the Reclamation Act of 1939". That author of the contrary opinion conceded that this was an area "where law, equity and policy come together," and that one year of deficit could be okay and under some circumstances ten years were considered to be too much. The unusual circumstances then relied upon by the Assistant Solicitor to justify a continuing operating deficit in CVP was that Interior had not raised the rates to Central Valley Project for twenty-five years and then all of a sudden was considering a 50 percent rate increase. The circumstances now are far more unique, unusual and special. The Central Valley Project has now gone without a rate increase for some 28 years and is considering rate increases of up to 300 percent. More importantly, the current temporary deficit position is caused almost entirely by the impact of the worst drought in California history on PDC and the fact that what the Bureau thought was a favorable contract to purchase power from Centralia has turned out to be financially disastrous.

However, that Centralia contract expires at the end of 1981. After that time, the Bureau will repurchase power from P.G. & E. from Energy Account Number 1 at a rate of 2.81 mills. Over the few years after 1981, instead of running large deficits because of purchased power, the purchased power account is expected to show a net profit approaching 100 million dollars. Furthermore, the problem arising from the purchased power account is totally unprecedented in federal power marketing. Certainly, under these conditions, it is reasonable to propose a rate that will eliminate any operating deficit over the period running from now until the Bureau exhausts Energy Account Number 1. The averaging concept inherent in repayment requirements does not require or even suggest raising the rates now and lowering them in 1981. Surely, there is, at the very least, discretion allowing CVP to run an operating deficit now which will be made up later.

Even on the dubious assumption that no operating deficit can be run in any single year, the current rate level contained in the Blue Brochure is clearly excessive. Basically, as applied in the Blue Brochure, the rates are being established for a multi-year period ending in 1981 on the basis of the same rates throughout the period. This means that the amount of revenues required to avoid an operating deficit in the year 1981 sets the revenue level for 1980 and 1979. If, however, the increase was to be in steps such that 1979 revenues were sufficient to avoid an operating deficit in 1979, 1980 revenues being raised to a level sufficient to avoid an operating deficit in 1980 and 1981 revenues being raised to a level sufficient to avoid an operating deficit in 1981, the rates to preference customers would be reduced by millions of dollars. We have been told that this alternative was never considered by the Bureau. And this, despite the fact that the November, 1973 increase as promulgated, was in two steps.

Even assuming that the Department's current legal position is correct, in their Blue Brochure, they err by collecting approximately one million dollars more in the "pinch point" year than is required to avoid incurring an operating deficit. It has been acknowledged that this excess should be avoided if possible, and the customers have been invited to revise the rate and repayment schedule to insure that in the pinch point year only the required revenues and no more are provided for. We submit it was WAPA's error and that it is WAPA's duty to make the correction.

In December 1977, R. W. Beck & Associates, consulting and engineering experts employed by NCPA and SMUD, submitted a report which corrected various methodological and other deficiencies contained in the Blue Brochure. In the Assistant Secretary's proposed interim rate decision of January 4, 1978, it is stated (at 5) "The R. W. Beck study makes adjustments in the estimates of annual operating costs during these years [1979-81] which we believe are reason-

able for the purposes of setting a subsequent interim rate (although not necessarily for setting the final rate)." Obviously, the Assistant Secretary determined, though perhaps not conclusively, that the Beck figures were more accurate than those contained in the Blue Brochure. It seems clear that from this point on, discussion should be based on the Beck figures and not on those prepared by the Bureau, which are now acknowledged to be presumptively in error. Making these corrections alone would decrease the needed revenues by as much as 20 percent.

The more water that will be available, the more electric energy will be produced by the Bureau's hydro plants and the more revenues it receives for such energy. The Blue Brochure utilizes as its starting point a water level which reflects the drought in California, which has now ended. If it were revised to reflect the current state of water behind the dams and snow in the mountains, it would show much greater revenue being received by the Bureau than is contained in the Blue Brochure. I can think of no reason, other than intentionally overcharging the customers, which justifies continuing the proceeding on the basis of what is now inaccurate hydrology.

Then, of course, there is the issue of Project Dependable Capacity, which determines the amount of revenues the Bureau receives for the capacity it sells to Pacific Gas and Electric Company. Project dependable capacity is currently at 548 mw. This figure is used in the Blue Brochure for a five year period. As I have perviously stated, it is our legal position, that the figure has never legally been reduced from 925 mw. If the Bureau used 925 mw in its brochure, the amount of revenues it would require from the preference customers would be reduced by millions of dollars. Disregarding for the moment that legal contention, the Bureau has proposed to P.G. & E. that since the drought is over, and the Bureau is capable of maintaining, in its judgment, at least some 827 mw starting on July 1, 1978 that P.G. & E. agree to increase PDC to that amount. In short, the Bureau has proposed that P.G. & E. agree to pay for what it will receive. No reply has yet been received from P.G. & E. A question that might well be explored with P.G. & E. today is whether P.G. & E. will agree to that increase. If it does, the revenues needed from preference customers can be reduced by millions of dollars.

As I have stated previously, the Bureau as an "accommodation," perhaps leaning over backward again, agreed with P.G. & E. to increase the number of years from 4 to 5 during which PDC would remain at the low level. This was done without receiving any compensation from P.G. & E. At the very least, the Bureau should take the position that this amendment to the contract was without consideration and a nullity. This would at least mean that revenues would be significantly increased during the last few months of the repayment period with the consequent lowering of revenue needs from preference customers.

By the time I testify, the question of the Interior Department's giveaway of Northwest power through the totally unjustified decision of the Nixon-Ford political appointee should have been explored by the Committee. As I have stated, that arbitrary decision should be declared void and fully compensatory rates should be collected from P.G. & E., thereby eliminating any need for a rate increase. WAPA will, at least, have an opportunity to impose a higher rate when the rates come up for review in April of 1981. At the very least, the Blue Brochure should assume that P.G. & E. will pay after April, 1981 at a compensatory level. This would increase the revenues WAPA receives during the pinch-point year of 1981 and, accordingly, reduce the revenues required from preference customers for the years 1979, 1980 and 1981. Instead, the Blue Brochure assumes the giveaway will continue. I am loath to believe that any new administration will show the same solicitude for P.G. & E. that was displayed by Mr. Frizzell. Certainly, the projections of this administration should not make that assumption.

IV. WHAT CAN THE DEPARTMENT OF ENERGY DO NOW?

In the preceding sections of this statement, I have discussed a series of procedural deficiencies, failures on the part of government officials to properly protect the interests of the United States and the preference customers and substantive deficiencies in the Blue Brochure, many of which are virtually undisputable. To some extent, the past is over. We are now in the midst of a proceeding to insure that the interests of the United States and the preference customers are fully protected in the future.

The Department of Energy should reach a legal judgment as to whether or not PDC has ever been validly reduced. Unless the Department comes to a clear

conclusion that a decrease can be valid without a filing at FERC, it should act on the assumption that PDC is at 925 mw and if P.G. & E. refuses to pay, litigate the issue.

P.G. & E. should be asked to immediately agree that Project Dependable Capacity be increased to the level CVP is capable of supporting, even under the restrictive conditions of Contract 2948A. This would be an immediate increase in PDC of something like 300 mw. If P.G. & E. refuses to pay for the capacity it is and will be receiving, P.G. & E. should explain that refusal to this Committee.

P.G. & E. should be required to supply all information needed or useful to permit calculations as to the proper value of the capacity it receives from CVP to the area system. If P.G. & E. refuses, the Department should consult the Department of Justice. If necessary, this Committee should consider using its subpoena power.

The Blue Brochure assumes that the Bureau incurs transmission losses to an extent totally unsupportable by any engineer. The Blue Brochure should reflect realistic transmission losses. As the contract is currently being administered, P.G. & E. receives free power representing a value of millions of dollars under the guise of assumed, but non-existent transmission losses.

Procedures should be developed and promulgated which will map the ground rules under which the proceeding is being conducted. Currently, we are told, procedures are being developed. Under the current schedule, however, it seems likely that the hearings will be concluded before we know the procedures under which they are supposed to be conducted. Because of the long history of the Bureau's using improper rate and repayment schedules, as shown by the fact that in every succeeding rate repayment schedule and opinion they have adopted more and more of the recommendations and positions of the preference customers, the Bureau should be required to revise and publish a new brochure making the following general changes:

(1) Deficit years should be permitted, or alternatively, the rate increase should be in multiple steps with revenues in the pinch-point year being precisely sufficient to cover any operating deficit and no more;

(2) Positions contained in the Beck report which were adopted for purposes of setting the interim rate should be accepted;

(3) Calculations should start with the current amount of water stored in the dams and the mountains;

(4) Realistic compensation should be obtained from PG&E for Northwest power, at least after April 1, 1981;

(5) PDC should be based on realistic assumptions retroactive to January 1, 1975.

When a new brochure is published containing these changes, the WAPA should be required to defend them in precisely the same manner any other utility is required to defend a proposed rate increase before the Federal Energy Regulatory Commission. WAPA officials should be required to submit testimony and undergo cross-examination. We are confident that through the time-tested method of cross-examination, the various additional fallacies underlying WAPA's current position can be exposed so that the new decisionmakers in the Department of Energy will have the record and the information they need to render a realistic decision which is fair to all interested parties. That is all the preference customers ask. They are entitled to no less.

Mr. Moss. Mr. Sims?

Mr. Sims. Thank you, Mr. Chairman.

If you gentlemen would simply please pass the two microphones.

Mr. Kuder, under the two contracts between the Bureau of Reclamation and P.G. & E., the company provides firming support for the CVP hydro which allowed the CVP to serve about twice the firm customer load than it could otherwise have supported.

You noted this in your opening statement, I believe.

For this firm support it is of significant value in the CVP and it is one of the primary benefits to the Government under the contract. Is that correct?

Mr. KUDER. Yes.

Mr. SIMS. Could you estimate what P.G. & E's cost of providing this firming support is?

Mr. KUDER. I could not.

Mr. SIMS. Would you guess this would be in the neighborhood of millions of dollars? It is a major benefit under the contract, and I would expect it would impose some burden on the part of the company to perform this service. Is that reasonable?

Mr. KUDER. Yes. I would much prefer to reply to your question in writing later, if I may. I don't know.

What the support amounts to is really in two parts. Every month we get power and energy from the CVP at times when the customers don't need it. Then perhaps in the next month they don't have enough. Therefore, there is an internal monthly exchange of power. That is part of the support.

There is also an annual energy account which is established where they can get offpeak energy from us to serve their pumping needs and then deposit energy during the year to balance the account.

The support we give to the CVP is more than the 900 or whatever it is of project dependable capacity. There are fixed figures which in a couple years will be of 1,050 megawatts.

That is developed by sales from the bank account. Some of the sales, as you know, from energy account No. 1, are money losers. The other sales from energy account No. 2, from the capacity account, should be adjusted by the formula so they are about even. However, I cannot give you what you want, a month-by-month or annual—

Mr. SIMS. We can simply agree, can we not, that it is a substantial benefit and it imposes a burden upon the company? Could we agree to that proposition?

Mr. KUDER. Yes.

Mr. SIMS. I would like to put into the record at this time exhibit No. 1.

[Exhibit No. 1 follows:]

EXHIBIT 1

NORTHWEST CALIFORNIA INTERTIE, PORTLAND MEETING WITH BPA, NOVEMBER 26, 1962

Gerdes: Covered the history of PG&E offer to construct a line several years ago which, unfortunately for the government, was held up. Discussed California Power Pool meeting with Luce in February of 1962 and the member companies offer to construct a line. At the meeting Luce indicated that he had an open mind as to a Federal or private line, that he would consider any proposal and suggested Pool members talk to the larger public agencies. Mr. Horton talked to the Los Angeles Department of Water and Power. I talked to SMUD, together we talked to the Governor and Mr. Warne. No definite word received back from these agencies. We became involved in testimony before Congress and the proposal was held in abeyance until Congress adjourned. Recent meeting with the public agencies. It was concluded desirable to all meet together with Mr. Luce to determine BPA's attitude and what supply it will have available, in order that the Pool members can make a more definitive offer. At the meeting with public agencies, Pool members said we could deliver to public agencies at a price no greater than with federal construction, after consideration of reliability over a long line, even with our disadvantage in financing costs and taxes.

In view of the Northwest fear of loss of power to the California preference agencies our proposed arrangement, in our opinion, is better than legislation, which could be amended. The Northwest would be better protected with legislative language in a contract as we propose. This could be done and at the same time open up nearly 100 percent of the California market. We are prepared to view a proposal in a broad way considering integration as if all one agency, similar to what Mr. Luce worked out in the Northwest. This proposal gives public agencies all the advantages of a federal line and a lot more, as there would be considerable hazard in taking power from a line loaded to 900 megawatts all the way from the Columbia River to Los Angeles. We would be prepared to give considerable standby support from the Pool to minimize the outage hazards of such a line.

Horton: Mr. Luce sent a letter to all agencies asking for written proposals.

Would be helpful to us if we had answers to certain questions. Is BPA committed to constructing complete EHV line as against additions to existing systems? From a political stand point does BPA want to build a complete line as a matter of policy?

Luce: Not committed to all-federal or nothing. BPA will accept whatever is acceptable to California public agencies as was said in the February 1962 meeting. The starting point is for California agencies to get together.

Our Task Force report indicated power supply on a conservative basis. One reason is that interruptible customers were assumed to take power one hundred percent of the time which they are not doing.

Gerdes: We will endeavor to do it.

Bateman: Would it be contingent upon Los Angeles joining the Power Pool?

Horton: Either way.

Prince: The CPUC would have something to say.

Gerdes: No, they do not approve transmission extensions.

Luce: The Securities Exchange Commission?

Gerdes: No.

Butler: CPUC reviews rate base and approves only current rates to give return; this rate can be changed.

Tillman: Under this arrangement we would be different than other customers where you get a return. There may be no return on these facilities.

Gerdes: There are advantages to integration; e.g. CVP has 450 megawatts with our integration. USBR studies show they would have only 190 megawatts without integration. We can do this at no charge and no cost to us. By base loading our Pit River generation, Northwest power can be transmitted over existing lines at no costs. These and other benefits offset the tax and financing advantages of federal construction.

Tillman: Are there any existing transactions where power is sold without a return?

Horton: This has been done to meet competition.

Gerdes: On extensions to rural areas, the CPUC has asked that we stipulate that rates would not be raised. We might do so in this case.

Tillman: It should be done in this case.

Horton: We have done so at the stockholder's expense in the case of the City of Vernon.

Rockwell: We made firm contract.

Goldhammer: How about a 3-way contract between BPA, utilities and the public agencies.

Gerdes: Doubt if it would work. We must protect ourselves and you have feeling in Northwest on preference against contract with California preference agencies.

Nelson: You could also sell excess from Southern part of your system.

Tillman: If we wanted to back off. How many years we have to contract? We then could build own line.

Mr. SIMS. If each of the witnesses could be handed a copy of this exhibit, please, and I shall identify it for the record further and it will be available to the public.

This exhibit is a P.G. & E. document which represents the P.G. & E. summary of a meeting in November of 1962, the subject of which was a discussion of the northwest California intertie proposal. This is a summary of the opinion spoken by those present.

Do you recognize the name "Gerdes"?

Mr. KUDER. Yes.

Mr. SIMS. Could you identify who he is and what position he might have held in 1962?

Mr. KUDER. I believe he was executive vice president of the company in 1962. He is now retired.

Mr. SIMS. Thank you. I would like to direct your attention to the second page of this memorandum and simply read what the P.G. & E. notetaker represented Mr. Gerdes to have said in about the middle of the page: "Mr. GERDES. There are advantages to integration; for example, CVP has 450 megawatts with our integration. USBR studies

show they would have only 190 megawatts without integration. We can do this at no charge and no cost to us."

Do you agree with that statement, Mr. Kuder? My interpretation of this is that in the opinion of Mr. Gerdes, at that time P.G. & E. could firm the Bureau for no cost to the company. Is that a fair inference from the statement?

Mr. KUDER. That is what it states.

Mr. SIMS. I find that rather surprising. Under the concept of a contract, when one party provides something they are supposed to receive something in return, are they not?

Mr. KUDER. Yes.

Mr. SIMS. And if, in fact, P.G. & E. confirmed the Bureau's hydro at virtually no cost to it, this would tend to dispute what we earlier agreed to, which was that this was one of the major benefits to the Government under the contract. Is this so?

Mr. KUDER. I don't think so. What he was talking about in 1962 was this exchange of power that I mentioned a moment ago, month by month and year by year.

The only supporting level was the Project Dependable Capacity. Here it is 450 megawatts, as it was in those days.

What he was saying was that when the project does not need the capacity or energy we get it. Then any time they need it, we give it back. This was on a rolling basis.

The consequence was in those situations that there would not be very much cost to the company; couldn't be.

What we did, in effect, was to supply base load energy, or rather support energy, when the hydropeaking capacity and peaking operation was not available to provide the energy.

Mr. SIMS. Let me turn to another one of the concepts here and go back to the history of the project as described by the chairman in his opening statement.

If the Central Valley project had built its own firming capability, through whatever type of fossil-fuel-fired base load plant, this would have represented a certain threat to P.G. & E.'s economic position, would it not?

Mr. KUDER. Yes; it would.

Mr. SIMS. You are in business to sell power, and to the extent you sell less in theory it is a threat to your economic position.

This was basically the reason the company opposed the construction by the Government of the Antioch steamplant.

Mr. KUDER. I was not involved in that.

Mr. SIMS. In your opinion and given your knowledge of the history of that, would you agree or disagree with that very general statement?

Mr. KUDER. I think there was more than one reason the company opposed the steam plant.

Mr. SIMS. Would you say this is one valid reason the company opposed it?

Mr. KUDER. Yes; I would. There are others.

Mr. SIMS. We can agree that certainly there would be others. We could agree, also, that one of the benefits to P.G. & E. under these contracts is that all of the excess capacity available to the CVP flows to the company. In other words, whatever is left over flows to the company and therefore is not available to any other party or any other potential purchaser. Could we agree with that proposition?

Mr. KUDER. Certainly if the Bureau had surplus power its only market is the company.

Mr. SIMS. That is the result of the contract. Is that right? Under the contract, whatever is surplus, leaving aside the question of how one might value it, it all flows to P.G. & E.; is that correct?

Mr. KUDER. It does, but they have no other place to market. It has to flow.

Mr. SIMS. Let's take a look at that proposition.

Mr. Davidson, as the counsel to Northern California Power Agency, is it not true that at a point in the past the city of Santa Clara attempted to purchase from the Bureau some of his excess capacity with a return of energy.

Mr. DAVIDSON. I believe so.

Mr. SIMS. Could you summarize how this arrangement would have worked?

Mr. DAVIDSON. May I for the moment consult with the executive director? I am not clear on the exchange.

Mr. SIMS. Let me try to do it for you in a simple way and perhaps based on your knowledge you can tell me whether my characterization is correct.

Santa Clara, the city of Santa Clara, purchases power, a good deal of which they purchase from Pacific Gas and Electric Co.

At Santa Clara's peak they wanted to reduce their purchases from P.G. & E. and substitute instead purchases of excess capacity from the Central Valley project, and at an off-peak time Santa Clara then would return the power to CVP, the idea being that the power Santa Clara purchased in off-peak would be considerably cheaper than that which they purchased from P.G. & E. during the peak, and that Santa Clara would gain and, in effect, P.G. & E. would lose.

Is that a fair summary?

Mr. DAVIDSON. Thank you very much, Mr. Sims. That is a very fair summary.

Mr. SIMS. Could you conclude, then, that one of the benefits accruing to the company under this contract is that potential purchasers such as Santa Clara are effectively cut out? They are not able to purchase whatever excess capacity is available from the Bureau's hydro?

Mr. DAVIDSON. Yes; I would agree.

Mr. SIMS. If the CVP had constructed its own firming capability they would have had a considerably greater amount of firm capacity to market than was the case prior to the Centralia contract. Is that correct?

Mr. DAVIDSON. Certainly.

Mr. SIMS. And they would therefore absent a contract between the Bureau of Reclamation and P.G. & E., in effect be in competition with P.G. & E. Would you agree with that statement?

Mr. DAVIDSON. Certainly.

Mr. SIMS. Well, in your opinion is this the greatest value of the contract to P.G. & E.; in other words, the fact that P.G. & E. firms the Central Valley, Project hydro, and the Central Valley project is not in direct competition with P.G. & E.?

Mr. DAVIDSON. If I may, I will focus on the last half of your question without limiting the first portion, by which I mean I think it is fair to say that one of the great benefits P.G. & E. receives from contract 2948-A and its predecessor is that it greatly reduces the ability of CVP to compete with P.G. & E. It has retarded building of Federal transmission lines. It limits the areas which CVP can serve.

There are numerous limitations, and P.G. & E. recognized that this is one of the chief benefits to them of the contract.

Mr. SIMS. I checked with the Western Area Power Administration, from their records I found out that P.G. & E. got free from CVP 4,872 megawatt months of nonfirm capacity between 1972 and 1977.

It is likely that, absent contract between the Bureau and the Central Valley project, that this capacity would have gone to some other purchaser?

Mr. DAVIDSON. I believe it likely.

Mr. SIMS. I want to note in caveat we are leaving aside the question of how one should properly value this capacity.

Mr. KUDER. Might I comment on Mr. Davidson's reply?

Mr. MOSS. Yes.

Mr. SIMS. If you can do it briefly. I know it is getting late. If you can be succinct, it would be fine with me if the Chair has no objection.

Mr. KUDER. I would like to say two things. Mr. Davidson has made several comments in his written statement. I would like an opportunity to consider whether I may answer those in writing at the appropriate time.

Mr. MOSS. You may submit statements to the Chair. We will review them to determine whether they would be appropriate for the record.

Mr. KUDER. Thank you. At that time I can comment on those statements so it would save time.

Mr. SIMS. Mr. Kaplan, let's speak for a moment as to how the Government markets its power if I might borrow your expertise. Electrical energy and generating capacity are generally charged separately, are they not?

Mr. KAPLAN. That is certainly a common arrangement, probably the most common.

Mr. SIMS. Since the Central Valley project is a hydro system without internal firming capability, its salable firm capacity is somewhat less than the sum of the rating of generators, is it not?

Mr. KAPLAN. That is correct.

Mr. SIMS. This general rating ability which is available each month year after year is termed Project Dependable Capacity. Is that correct?

Mr. KAPLAN. Yes.

Mr. SIMS. What is the current Project Dependable Capacity of the Central Valley project?

Mr. KAPLAN. At the moment it is 554 megawatts.

Mr. SIMS. What was it prior to the drought-induced reduction?

Mr. KAPLAN. Prior to that the number was 849 megawatts, if my recollection is correct.

Mr. SIMS. As far as revenues to the Government, the Central Valley project sells all its energy and all its dependable capacity. Is that correct?

Mr. KAPLAN. Yes.

Mr. SIMS. So, that the higher the dependable capacity rating the more revenue to the Government.

Mr. KAPLAN. That is correct.

Mr. SIMS. And all other things being equal, the lower the rate, or at least the smaller the rate increase now to the preference customers.

Mr. KAPLAN. That is correct.

Mr. SIMS. This Project Dependable Capacity is a negotiated figure between the Government and Pacific Gas & Electric Co. Is that correct?

Mr. KAPLAN. Yes.

Mr. SIMS. Was SMUD party to these negotiations?

Mr. KAPLAN. No; it was not.

Mr. SIMS. Mr. Davidson, were your clients parties to these negotiations?

Mr. DAVIDSON. Might I ask you to be more specific as to which negotiations?

Mr. SIMS. The negotiations which determined Project Dependable Capacity.

Mr. DAVIDSON. We certainly were not, Mr. Sims.

Mr. SIMS. Is it true that if Project Dependable Capacity is too low, SMUD and NCPA and other preference customers might have to pay higher rates?

Mr. DAVIDSON. There is no might about it.

Mr. KAPLAN. Yes.

SIMS. What has been alleged is that Project Dependable Capacity is too low. Perhaps we can address this question by looking at some recent examples.

Mr. SIMS. I would like at this time to place into the record exhibit 2 and ask that copies be given to each of the four witnesses.

[Exhibit No. 2 referred to follows:]

EXHIBIT 2

MEMORANDUM

Date: April 21, 1978.

To: John E. Moss, Chairman.

From: Subcommittee staff.

Subject: Power supplied to P.G. & E. by CVP at P.G. & E. system peak.

The attached table shows the amount of power delivered to P.G. & E. by CVP on the day that P.G. & E.'s system "peaked", or encountered its highest customer demand for the year. The volume of CVP power represents generating capability from water in CVP reservoirs that was made available to P.G. & E. to schedule at the time of their choice. The CVP tells P.G. & E. every day how much hydro power will be available for use the next day. The CVP also declares a similar figure several months in advance. These declarations, taken with historic customer demand patterns, measurements of water in CVP reservoirs and estimates of the run off from the winter snow fall enables P.G. & E. to plan well in advance the optimal use of CVP generating capability.

The attached table takes the power CVP declared available to P.G. & E. and subtracts for maximum CVP preference customer use, actual pumping load power usage and transmission losses. Under a 1951 vintage contract formula, system losses are assumed to be much greater than they actually are. The difference between contract losses (c) and actual losses (a) is delivered to P.G. & E. every day for free. On June 28, 1976, P.G. & E. received approximately 86 megawatts of free power from the government. The amount of free power received by P.G. & E. every other day that year, and every other day of other years, depends on the amount of CVP hydro power generated that day. P.G. & E. began to receive this free power in 1963 when the Cottonwood connection between CVP and P.G. & E. transmission lines was completed and had the effect of reducing transmission losses to the Tracy load center.

When corrected for actual transmission losses, and supplemented by the firm power from the coal fired plant at Centralia, which is backed up by the resources of the Bonneville Power Administration and is entitled to a transmission preference over the NW-SW Intertie, the volume of firm power delivered to P.G. & E. at its time of greatest need is far in excess of the contract dependable capacity

figure. The government appears to be seriously undercharging P.G. & E. for the value of its power.

Attachment.

POWER SUPPLIED TO P.G. & E. BY CVP AT P.G. & E.'S PEAK

[In megawatts]

	June 28, 1976	Aug. 1, 1977
1. CVP power declared available.....	1,207	934
SUBTRACT		
2. Project dependable capacity.....	851	554
3. Pumping load and system losses ¹	138 ² 133	43 84
	271	127
4. CVP hydro available.....	85	253
5. Power from Centralia.....	382	382
Total available to P.G. & E. at its peak.....	² 467 ³ 553	635 ?

¹ System losses from transmission to the load center near Tracy are calculated by a contractual provision that seriously overstates actual losses. The contract loss (c) for 1976 is 133 MW, but the actual loss (A) is only 47 MW. Thus, P.G. & E. got 86 MW of firm capacity free that day.

² Contract.

³ Actual.

Source: Data supplied by Western Area Power Administration.

Mr. SIMS. Exhibit 2 is a memorandum to Chairman Moss from the subcommittee staff entitled "Power Supplied to P.G. & E. by CVP at P.G. & E. System Peak."

The figures were obtained from the files of the Western Area Power Administration.

I will refer you to the last page where there is a table. Let me walk you through the methodology.

Item 1 is the CVP power declared available. That power is declared available to Pacific Gas & Electric Co. approximately 24 hours in advance every day.

On June 28, 1976, which was P.G. & E.'s peak in that year, the day before Central Valley project declared available to the company for the company's dispatch and use 1207 megawatts. All figures on this table are expressed in megawatts.

Assuming for the purpose of this example that the preference customers used on that day their entire Project Dependable Capacity which is expressed in item 2, item 3 represents the actual pumping load used on that day, the figure for 1976 being 138 megawatts, and also the system losses, 133 megawatts with a small "c" after the figure. I will get into that in a moment.

All of those, Nos. 2 and 3, are subtracted from the CVP power declared available, leaving us the figure of 85 megawatts. These were in fact delivered to P.G. & E. in 1976 at P.G. & E.'s peak.

Mr. Kuder, these 85 megawatts represent, do they not, firm power from CVP hydro?

Mr. KUDER. No.

Mr. SIMS. What does it represent?

Mr. KUDER. It represents nondependable capacity probably, but it may not have any energy with it in any event. It cannot be firm power unless you know long in advance that you are going to have it because

if you know that you are not going to have it you have to build for it. What it represents at the most is whatever energy came with the capacity at that time.

Mr. SIMS. Does no Western Area Power Administration declare to P.G. & E. well in advance the estimates of power that will be available to P.G. & E. at times during the year, such as at P.G. & E.'s peak whenever that may occur, usually during the summer?

Mr. KUDER. They give the estimates. We don't know how long power will be available. We can use it, as I say, for the energy that comes with it, to adjust our overhaul schedules. It has not saved us any investment in capacity generation.

Mr. SIMS. I am not specifically talking about deferral of investment. You are getting a little in advance of me. We will get into some of these questions, be assured.

I realize you do not know what my line of questioning is, at least. I hope you do not.

However, P.G. & E. has available to it knowledge of the amount of water in CVP reservoirs. P.G. & E. has available to it knowledge of the customer demand over the years, which generally follows a similar pattern from year to year, as I understand it, and correct me if I am wrong.

Mr. KUDER. You are wrong.

Mr. SIMS. You say the demand is significantly different every year?

Mr. KUDER. It does not follow the same pattern by any means.

Mr. SIMS. Generally similar?

Mr. KUDER. Generally similar in the gross, but where we used to have a summer peak and winter peak it is now mainly a summer peak. We don't know what effect we will have from daylight savings, from all sorts of operations. It cannot be forecast, including a lot of Government controls on the use of this power, so you do not know definitely in advance what the usage will be.

Mr. SIMS. In fact, we don't know definitely until after the power is used, but does not P.G. & E., as a prudent company, make projections as to what the use will be for the next time period, months, years?

Mr. KUDER. Indeed, yes.

Mr. SIMS. And are you generally within the ball park in these estimates?

Mr. KUDER. Yes.

Mr. SIMS. Does not P.G. & E. become aware, as do other interested parties, of how much snow is in the mountains, how much water is in the CVP reservoirs? In other words—

Mr. KUDER. We know after it falls.

Mr. SIMS. After it falls and after the water runs into the reservoir.

Mr. KUDER. Yes.

Mr. SIMS. So you have a fair idea of what is going to be available to you from CVP hydropower during the summer months. Is that a fair statement?

Mr. KUDER. Yes; for short periods of time you do know in the summer months when releases will be made for irrigation.

Mr. SIMS. I direct your attention to item 5, power from Centralia. There is no mystery as to how much power is coming from Centralia on any given day, is there?

Mr. KUDER. No.

Mr. SIMS. So, at P.G. & E.'s peak in 1976, Central Valley project, including Centralia power, delivered to P.G. & E. under the provisions of the contract methodology 467 megawatts unless my arithmetic is incorrect.

Mr. KUDER. There is nothing wrong with your numbers or arithmetic but it does not have energy figures in it. You cannot tell from looking at this situation whether the capacity was any good or not.

Mr. SIMS. I direct your attention to 1977, which is after the reduction in Project Dependable Capacity to a figure of 554 megawatts.

At No. 4, reading across, I have a figure of 253 megawatts, which was delivered from Central Valley project hydropower to P.G. & E. during the period of drought immediately following the Bureau's reduction in Project Dependable Capacity. Is that correct?

Mr. KUDER. Yes; I will assume your arithmetic is correct.

Mr. SIMS. Let's assume it is correct. Therefore, the total delivered, if you add Centralia, is 635 megawatts.

Let me get into the footnote now if I may. The contract provision gives a formula whereby the parties agree what the system transmission losses are when the power is delivered. Is that correct?

Mr. KUDER. Yes; this is when it is transmitted to the load center.

Mr. SIMS. This overstates actual losses?

Mr. KUDER. I don't know. I have not considered it for years.

Mr. SIMS. According to an estimate by engineering personnel at P.G. & E., in 1976 a more accurate number for actual losses was about 47 megawatts. The contract figure, however, was 133 megawatts.

Assuming arguendo that these two figures are correct, the difference is given free to P.G. & E. by the Bureau. Is that right?

Mr. KUDER. The last line states, "Thus P.G. & E. got 86 megawatts free that day." Where is it firm capacity?

Mr. SIMS. Let's leave aside the question of how we describe the capacity for the moment. The difference between the contract transmission loss figure of 133 and the actual loss of 47 is approximately 86 megawatts, assuming the figures to be correct.

Mr. KUDER. Yes.

Mr. SIMS. And this was what was transmitted to P.G. & E. at no cost. Is that correct? Assume that the figures are correct.

Mr. KUDER. I understand what you are saying about the losses. I don't know what basis you use as firm capacity.

Mr. SIMS. Let me make this clear without trying to characterize the nature of the capacity. Is it not true that under the contract the Bureau lost 86 megawatts less than provided for in the contract on that day?

Mr. KUDER. Certainly, if the losses were miscalculated and if these figures are correct there is an 86 megawatt difference.

My question, because you characterize, you say 86 megawatts of firm capacity—and my question was, was it firm or not?

Mr. Moss. We will not debate it. I think you know from the very extensive hearing record that I developed the last time I went over the Central Valley project that no erroneous information ever was placed in the record. We will not make any errors in this one, either. Everything will be checked with great care, as it has always been.

I think you can readily acknowledge that that record produced no errors.

Mr. KUDER. I do acknowledge that, Mr. Moss.

Mr. MOSS. We will take the same care here.

Mr. KUDER. That is fine because I did not understand what capacity he was talking about until I got to the last line.

Mr. SIMS. In fact, the term "capacity" might be a misnomer. This refers to energy.

Mr. KUDER. Oh.

Mr. SIMS. Have I corrected myself to your knowledge, Mr. Kuder?

Mr. KUDER. I truly don't know. Does this refer to a particular day? This is June 28, 1976.

Mr. SIMS. This is a simple concept, Mr. Kuder. We talk about the difference between actual transmission losses and what the contract deems them to be.

Mr. KUDER. Fine.

Mr. SIMS. Can we agree that there is, in fact, such a difference? Will you take my word for it?

Mr. KUDER. I will take your word for it.

Mr. SIMS. Assuming I got this figure of 47 megawatts from P.G. & E. documents——

Mr. KUDER. There are two loss calculations, one is capacity and one is energy. I assume what you got is capacity. If so, that is fine.

Mr. SIMS. But transmission losses more properly refer to energy. I think perhaps in the technical complexity of this the wrong word might have been used.

As the chairman indicated, that certainly will be corrected at the proper time.

The only point I am trying to make here is that the contract overstates the transmission losses and the reason for this overstatement is the Cottonwood interconnection. Do you recall the year in which the Cottonwood connection between the Bureau lines and P.G. & E. lines was closed? It was the year 1963. Does that sound correct to you?

Mr. KUDER. Yes.

Mr. SIMS. I believe that is the year. I also believe it to be true that every day of every year since 1963 when the Cottonwood connection was closed the transmission losses calculated under the contract have been overstated and that P.G. & E. has been getting free the benefit of this.

Mr. KUDER. Not at all because——

Mr. SIMS. Could you supply for the record a statement which addresses itself to this question.

Mr. KUDER. Yes; I would like to very much.

Mr. MOSS. A statement plus the company records on the actual losses.

[The following statement was received for the record:]

AGREEMENT BETWEEN U.S. BUREAU OF RECLAMATION AND P.G. & E. TO
CONNECT ELECTRICAL SYSTEMS

The agreement between the United States Bureau of Reclamation and P.G. & E. to connect their respective electrical systems at Cottonwood Substation was an agreement of mutual benefit to both parties. This interconnection was of benefit to the Bureau in that it improved the stability and reliability of the Bureau's system. The increased stability and reliability was beneficial to P.G. & E. in that P.G. & E. is contractually obligated to back up the Bureau's system.

The Cottonwood interconnection has enabled the Bureau to reduce the amount of power flowing over its own transmission lines south of Cottonwood, thereby significantly reducing actual electrical transmission losses in those lines. The Bureau receives most of the benefits from this loss reduction. For the purpose of marketing energy, the Bureau receives credit for all energy delivered to P.G. & E. at Tracy, plus all that delivered at Cottonwood reduced by four percent for losses. The Bureau pays P.G. & E. nothing for transmission of this energy to Tracy over the P.G. & E. system.

P.G. & E., on the other hand, does not receive any of the benefits associated with the reduced energy losses on the Bureau's system. In fact, P.G. & E.'s system losses have increased as a result of the Cottonwood interconnection. The Bureau recognizes this fact by discounting energy deliveries to P.G. & E. by the previously mentioned four percent, to cover the incremental transmission losses that result from the interconnected power systems.

The parties agreed in the 1967 contract to use a table of transmission losses which was based on the systems separated at Cottonwood. It is true that these losses might result in a computed capacity that is less than that which would result if losses were based on a permanent interconnection at Cottonwood. However, in assessing the value of any additional capacity for area planning purposes, one must also recognize the provision of Article 15(c) of Contract 2948A. This article allows WAPA to sever the Cottonwood interconnection upon 30 days notice (P.G. & E. does not have this right). Thus, in planning resource additions, P.G. & E. cannot include any additional capacity resulting from CVP's reduced system losses due to interconnection at Cottonwood Substation, because this capacity cannot be considered firm and therefore it has no planning value to P.G. & E.

P.G. & E. does not believe the transmission losses are overstated in the contract but are fair and equitable compensation required to make P.G. & E. whole. Actual losses on the P.G. & E. system between Cottonwood and Tracy are not measured or recorded.

Mr. SIMS. I did some hasty calculations which may not be correct, but they are based on a methodology in the Department of Interior audit report. These said that given the reduction in Project Dependable Capacity to 554 megawatts as of the 1st of July of last year, a benefit to P.G. & E. which accrued because of this reduction was something on the order of \$2.5 million. Are you familiar with the Department of Interior audit report or can you speculate on its possible methodology in arriving at this figure?

Mr. KUDER. I am not familiar with the report. I can speculate that they may have been assigning an estimated value to the nondependable capacity.

Mr. SIMS. If this capacity were firm capacity, this methodology might produce such a figure. Would you agree with that statement?

Mr. KUDER. How many kilowatts were involved?

Mr. SIMS. We were talking about, on a given day, between 85 and 171 megawatts.

Mr. KUDER. Is this figure \$2.5 million a day?

Mr. SIMS. Let me leave this line of questioning because we are not prepared to answer the question finally. I will note this was a value assigned by a reasonably technically competent observer as to the value to the company of this reduction in Project Dependable Capacity.

I have one further question I would like to address to Mr. Davidson on this table.

The contract between the Bureau and P.G. & E. appears to be isolated to hydroelectric power and possibly undervaluing it. In other words, the value of the hydro from the project, whatever the amount of water they might have, is backed up by the firm energy and capacity from Centralia. Is that not correct?

Mr. DAVIDSON. Yes, sir.

Mr. SIMS. So if I were to try to assign value either to the Central Valley project hydropower by itself or Centralia energy and capacity by itself, these two figures would give me a smaller net than the total of the two supporting each other. Is that correct?

Mr. DAVIDSON. Yes; might I carry that further?

Mr. SIMS. Please.

Mr. DAVIDSON. As I understand it, the contract between P.G. & E. and the Bureau credits the Bureau's hydro plant, totally isolated if they go down. CVP drops for 1 day, let's say. This is not the way things run in the real world. Mr. Kuder's testimony tells you what P.G. & E. did last year when there was a drought, a drought which affected hydro as well as that of the Bureau. That option is not open to the Bureau. It cannot buy capacity and use it for only the worst couple months within a 20-year period.

The benefit of integration, in other words, goes to P.G. & E.

Mr. SIMS. Mr. Kuder, can you describe the benefit to the Government accruing from the various energy accounts and the capacity accounts and other aspects of this contract? I would like to get into this in order to perhaps balance some of the benefits to the company we have been discussing so far.

Mr. KUDER. The benefits from the accounts are basically that the Bureau always has a source of power from which it can buy when it needs it.

The energy account No. 1 was established in 1951 and over a period of years that account grew. There were about 15 billion kilowatt hours there surplus to the project's needs up until August 1967. Those are a credit of kilowatt hours which the Bureau can buy when it needs energy from P.G. & E. and at a very low rate, 2.81 mills.

The surplus energy which we now get from the CVP does not go into energy account No. 1. That account is closed. It goes into energy account No. 2.

Again what happens is that the energy is sold to the company at the going CVP rate, and when the CVP needs energy, 2 or 3 years in the future, they can buy it back at the same price plus changes in the cost of production and plus the service charge.

This capacity account works in the same way.

Mr. SIMS. Energy account No. 1—

Mr. KUDER. You did ask about the benefits. Generally speaking, the benefit from purchasing from these accounts is that they get a very substantial economic benefit from energy account No. 1 and they get substantial recognition of the low price, whatever the price was, when they buy back. Therefore, they buy back cheaper than they would if there were no account.

Mr. SIMS. I would like to put in the record at this time exhibit No. 3 and ask that it be distributed.

[Exhibit No. 3 referred to follows:]

EXHIBIT 3

(From GRE, 8/20/73, by phone)

BENEFITS TO COMPANY

1. Contract permits deferment of investments in 400 MW powerplants (NW imports).
2. Company receives without charge, capacity from USBR which is in excess

of Project Dependable Capacity.

3. Company can use USBR storage (water) capacity.
4. Ratchet provisions permit: (a) Use of large amounts of Contract Dependable Capacity, i.e., in months when less than maximum load level is reached; (b) USBR pays for maximum kw from bank accounts in months used and preceeding 11 month period.
5. When Contract Dependable Capacity is zero, all energy goes into bank at lowest block energy rate which results in deferment of energy generation at incremental fuel cost.
6. Company receives revenue for surplus transmission capacity.
7. Use of federal peaking capacity permits most efficient (low cost) use of thermal plants.
8. The use of federal financing for portion of NW Intertie line.
9. Use of Round Mountain Cottonwood 230 kv tie to strengthen Company's system.
10. Contract provides means to use federal generation to meet area emergency conditions.
11. Federal system to share in area load and frequency control.
12. Use of federal personnel and material to assist in emergency restoration of service.
13. Use of federal transmission system to strengthen area system.

PACIFIC GAS & ELECTRIC CO.,
October 2, 1973.

Mr. J. F. ROBERTS, Jr.: Attached is a draft listing of benefits to the Bureau and to the Company under the USBR wheeling contract, which the Bureau Sacramento office has been asked to supply Washington. These were developed by Company and Bureau people over the past two months. Bill Kuder now appears to have some misgivings about these from a policy standpoint and has indicated to Elmer Hall's people, who coordinated the preparation of this material for the Company, that he would be in touch with you, Mr. Shackelford, Mr. Worthington, and others about this matter. As far as the figures are concern, I believe they are roughly correct under the stated assumptions. It remains, however, as Bill Kuder indicates, a policy matter as to whether we should release or censor some or all of them. On the other hand, if we don't the Bureau may manufacture their own "facts" with which we probably would not be in any more agreement than with this joint effort. The Bureau seems to feel that they must have some quantifications of the mutual benefits. Among the considerations in this whole matter are (a) it probably would not hurt and might well help our showings before the CPUC to illustrate that we (i.e., our customers) enjoy benefits as well as obligations under the USBR contract: (b) there appear to be substantial contingent liabilities under the agreement for which no provision has been made on the Company's books nor has any mention been made in recent SEC Prospectuses; and (c) our politically motivated detractors are not going to be moved by any showing of equitability and would try to use such parts of our work as they can to our detriment.

Attm.: WMG/WLF.

B. W. SHACKELFORD,
October 4, 1973.

JDW: Attached is a statement of P.G.&E. benefits derived from the Central Valley Project Contract. The benefits were identified for us by the Bureau of Reclamation. They are pressing us to establish dollar values for as many of them as possible. As you can see, we do not propose to give them such values except in one case.

The Bureau has asked that this material be mailed to them by Friday evening, October 5, or if necessary be handed to them at a meeting scheduled for Tuesday, October 9. I believe the statement are satisfactory, but because of its importance, I believe you and Mr. Bonner may wish to look it over. An extra copy for Mr. Bonner is attached.

Also attached is the Bureau's draft of the analysis of benefits to it of the Central Valley Project contract.

The Bureau's Sacramento people will no doubt try to talk us into submitting material along the lines of that shown to be deleted or omitted. We plan to resist such a request even if it involves discussions with the Department of the Interior in Washington, D.C.

BWS.

OCTOBER 4, 1973.

Attached are P.G. & E. benefits from Bureau contract, modified per discussion of October 2.

J. E. HELLER.

B. W. Shackelford (4 copies), W. B. Kuder, W. L. Fairchild, D. J. Thomason, W. C. Travis, H. R. Perry.

1. P.G. & E. BENEFITS FROM POWER THAT BUREAU IMPORTS FROM NORTHWEST

The Bureau presently imports 400 Mw of power at approximately 80% capacity factor. To the extent that this 400 Mw is not being used to serve Bureau customers, P.G. & E. buys the power at a lower cost than from alternative sources. This power is credited to so-called "bank accounts" for later repurchase by the Bureau. The savings is passed on to P.G. & E. customers but must be returned to the Bureau at the time of unbanking.

[The following to be deleted:]

In 1972, the first year that the full 400 Mw was available, P.G. & E. purchased all of the 400 Mw of capacity and 1.2 billion kwh of import energy. The savings passed on to P.G. & E. customers for that year was about \$7 million on capacity and \$930,000 on energy. Assuming that P.G. & E. customers could invest this savings at approximately 7 percent, the benefit to them would be about \$490,000 for capacity and \$65,000 for energy each year that the power remains in the account. An added benefit to P.G. & E. from the import power is that it reduces P.G. & E.'s fuel oil requirements at a time of critical supply.

2. P.G. & E. RECEIVES SUCH CAPACITY AS MAY BE AVAILABLE IN EXCESS OF PROJECT LOAD AND PROJECT DEPENDABLE CAPACITY

The power plants of the Bureau's Central Valley Project are hydroelectric plants and as such are rated according to the amount of water that can reliably be projected to be available for power production under dry year conditions. In the Bureau-P.G. & E. contract, Project Dependable Capacity (PDC) is defined as that capacity available with energy support under the most adverse stream flow conditions of record, which remains after deducting on-peak project loads. The rating of hydroelectric plants which results is necessary to account for the decreased capacity which occurs in very dry periods. Whatever benefit may accrue to P.G. & E. from plant capability in excess of PDC, results from: (1) the ability to utilize such capabilities during system emergencies or other contingencies and (2) short term displacement of thermal generation as discussed in Item 7.

3. P.G. & E. CAN BENEFIT FROM STORAGE OF WATER BY THE BUREAU FOR P.G. & E.'S ACCOUNT

The Contract provides that P.G. & E. may request and the Bureau will defer water releases made for power production when total water releases exceed the minimum requirements for purposes other than power. In such event, P.G. & E. would substitute P.G. & E. power from other sources for that power which the Bureau would have produced. The Bureau then holds water in storage to be released at P.G. & E.'s request. This provision allows P.G. & E. operating flexibility.

4. BENEFITS OF RATCHET PROVISIONS

(a) *Intermin use of contract dependable capacity without charge; i.e., in months when customers' loads are less than their annual peak*

The Bureau generation available during months when Bureau preference customers' loads are less than the maximum customer load is useful to P.G. & E. to the extent that it is used for scheduled overhaul and maintenance of P.G. & E. plants which avoids the need for P.G. & E. to install or purchase additional generation for such purposes.

In 1972 the generation available under this provision amounted to approximately 713,000 kw-months. This capacity would not be fully usable because of

uncertainties in scheduling and in forecasting. Assuming, however, that it was fully usable by P.G. & E. and, further, that the alternative would be gas turbine capacity, then the dollar benefit in 1972 would have been about \$1 million.

This benefit decreases as Project Dependable Capacity becomes insufficient to meet the customer load and the needed capacity is drawn from the Capacity Account.

- (b) *P.G. & E. is paid for kilowatts withdrawn from capacity account based on the maximum withdrawal in the year ending with the current month*

Resources installed by PG & E to meet peak month loads of Bureau customers are available to the Company in off-peak months to the extent not needed for such loads. This provision will benefit P.G. & E. when purchases from the Capacity Account begin. Thereafter, the benefit of this provision to P.G. & E. will roughly offset the decrease in benefit stated in 4a above.

5. WHEN ALL PROJECT DEPENDABLE CAPACITY IS BEING SOLD TO PREFERENCE CUSTOMERS, PROJECT GENERATION (ENERGY FROM PROJECT'S HYDROELECTRIC PLANTS) PURCHASED BY P.G. & E. GOES INTO THE ENERGY ACCOUNT NO. 2 AT THE LOWEST BLOCK ENERGY RATE

Under this condition, which first occurred in 1971, energy from the Central Valley Project's hydroelectric plants is purchased at the lowest of the 4, 3, and 2 mills/kwh block rates. This energy at 2 mills/kwh is less expensive than P.G. & E.'s alternate cost. The saving is passed on to P.G. & E. customers but must be returned to the Bureau when the energy is withdrawn from Energy Account No. 2.

(The following to be deleted:)

During the period 1971-mid 1973 P.G. & E. purchased 600 million kwh from Bureau plants at an effective rate, with voltage discounts, of 1.99 mills/kwh. P.G. & E.'s weighted incremental cost was 3.26 mills/kwh. The saving to P.G. & E. customers was: $60 \times 10^6 \text{ kwh} \times (3.26 - 1.99) \times 10^{-3} = \$762,000$ or about \$305,000 per year.

Assuming that PG & E customers were able to invest this saving at approximately 7 percent, the benefit from one year's energy purchase would be about \$21,000 each year until the energy is withdrawn from the Energy Account.

6. COMPANY RECEIVES REVENUE EXCESS TRANSMISSION CAPACITY

To the extent that P.G. & E. has excess transmission capacity, it is paid for the use of this capacity to transmit power to Bureau customers and, thus, receives revenue that it would not receive had the Bureau constructed duplicate transmission facilities.

7. INTEGRATION OF FEDERAL GENERATION PERMITS MORE EFFICIENT USE OF P.G. & E. THERMAL PLANTS

By integrating federal generation with PG & E generation, it is possible to obtain a more economic dispatch of the combined resources. This is because off-peak area loads can be met in part with PG & E's more efficient thermal units and the federal hydro energy can be used to meet on-peak loads. Thus, hydro energy can be used on-peak to displace energy that would otherwise be generated by P.G. & E.'s less efficient thermal units. This procedure benefits P.G. & E. customers by requiring less fuel to produce the same total energy.

8. P.G. & E. BENEFITS FROM USE OF FEDERAL FINANCING FOR A PORTION OF THE PACIFIC NORTHWEST INTERTIE

(These benefits result from the Bureau-California Companies Contract 2947A for EHV transmission and exchange service which is separate from but related to Contract 2949A). One of the two 500 kv circuits of the Pacific Intertie between Malin (Oregon) and Round Mountain (California) was constructed by the Bureau rather than by the investor owned utilities. The investor owned utilities obtain use of the Bureau circuit by paying the federal cost of ownership with relatively low interest rates and no taxes. The annual revenue requirements of the investor owned utilities using the circuit are therefore less than the alternative of private ownership. For cost purposes P.G. & E. has use of 50% of the Bureau circuit. The approximate annual benefits to P.G. & E. is reflected by the difference in revenue requirements as follows:

P.G. & E. revenue requirements: Private ownership¹ (16,806,781 x 13 percent x 50 percent). P.G. & E. 13 percent includes taxes, \$1,092,441; Federal ownership¹ (16,806,781 x 3.89 percent x 50 percent), \$326,892; difference (benefit), \$765,549.

9. P.G. & E. HAS USE OF ROUND MOUNTAIN-COTTONWOOD 230 KV, TIE TO STRENGTHEN ITS SYSTEM

The Round Mountain-Cottonwood 230 kv transmission line was built by the USBR in order to provide a direct tie between the USBR facilities in California and the BPA facilities in Oregon (by way of the USBR 500 kv transmission line between Round Mountain and Main). Although this 230 kv line was not built with the intention of reinforcing the P.G. & E. 230 kv line between Round Mountain and Cottonwood, and is not required for that purpose, nevertheless, there is a benefit to having the additional line between these two substations. For example, it has been established that the underlying 230 kv system, which is in parallel with the 500 kv Intertie, provides support during disturbances on the 500 kv system, and, therefore, contributes to system reliability. Therefore, the additional 230 kv line from Round Mountain to Cottonwood can contribute to overall system reliability. This would also apply, of course, in the event of a fault on one or more of the 230 kv lines from Round Mountain to Cottonwood.

10. CONTRACT PROVIDES MEANS TO USE FEDERAL GENERATION TO MEET AREA EMERGENCY CONDITIONS

P.G. & E. can call upon federal generating capacity during an emergency and to the extent that it is not being used to meet load.

11. CONTRACT 2948A PROVIDES A BASIS FOR INTEGRATING FUTURE CVP HYDROELECTRIC FACILITIES

The contract provides the basis for integrating future VCP generating plant additions such as New Melones and Auburn. This provision could benefit P.G. & E. customers by permitting the Company to defer the construction of alternative generation.

12. USE OF FEDERAL PERSONNEL AND MATERIAL TO ASSIST IN EMERGENCY RESTORATION OF SERVICE

P.G. & E. can call on the Bureau for assistance in supplying materials or personnel to repair damaged equipment under emergency or extraordinary conditions.

13. FEDERAL TRANSMISSION SYSTEM ADDS TO THE AREA TRANSMISSION SYSTEM

The Bureau 230 kv transmission facilities with ties to the P.G. & E. system at Cottonwood, Tracy, and Folsom (115 kv) add to the transmission available to the P.G. & E. area. At times this is a benefit to P.G. & E. and at other times it is not. Under conditions where the USBR 230 kv lines parallel those of P.G. & E., and the P.G. & E. lines are opened due to disturbances, the presence of the additional lines improve reliability. On the other hand, there are conditions where the Bureau's lines are not beneficial. For example, during the 1972 winter peak load, the USBR system transmitted some 490 MW to the P.G. & E. system across the tie at Cottonwood. This power flow had the detrimental effect of (1) increasing the load on the P.G. & E. Cottonwood-Vaca 230 kv lines and (2) diminishing system stability for a 500 kv fault at Table Mountain. Similarly, part of the USBR power will flow, by displacement, on the 500 kv system, and this increased load reduces the stability margins of the system.

Mr. SIMS. I would like to direct your attention to this, Mr. Kuder, This is a P.G. & E. document entitled "Benefits to Company." These are benefits accruing to P.G. & E. from the contract with the Bureau of Reclamation.

This particular document is dated August 1973. There are several documents appended to it.

¹ Federal and private costs are based on 1967 financing.

Mr. KUDER. There seem to be.

Mr. SIMS. I would like to ask you to turn to the second page. This is the second P.G. & E. document dated October 2, 1973 to a Mr. J. F. Roberts, Jr., who I presume is an official of P.G. & E.

Mr. KUDER. He was. He retired.

Mr. SIMS. At the time he was.

Mr. KUDER. Yes.

Mr. SIMS. Toward the end of this single-spaced paragraph I would like to read item (b) :

There appear to be substantial contingent liabilities under the agreement for which no provision has been made on the Company's books nor has any mention been made in recent SEC prospectuses.

Does not this language refer to the effect of energy account No. 1 on the company?

Mr. KUDER. I have no idea. This is the first time I have ever seen this document. I don't know what it refers to.

Mr. SIMS. What other substantial contingent liabilities might there be to the company under the contract?

Mr. KUDER. Now, Mr. Sims, I am reading this so I can understand what its premise would be.

Mr. SIMS. The gist of the memo is whether or not P.G. & E. should publicly admit to these various benefits, is it not, Mr. Kuder?

Mr. KUDER. As nearly as I can tell from the date, I think it refers to something that whoever wrote this—there is no signature on this—was writing about, as you indicate, energy account No. 1 and whether or not provision has been made on the company's books.

I don't know whether or not provisions were made on the company's books.

Mr. SIMS. The question here regards what you might have put in SEC prospectuses.

Mr. KUDER. It does.

Mr. SIMS. Either account No. 1 and whatever else might be covered by this term "substantial contingent liabilities," are in fact substantial liabilities and should have been reported in a prospectus, or they are not, which is it?

Mr. KUDER. One or the other.

Mr. SIMS. Do you know of any substantial contingent liabilities P.G. & E. has reported in any of its prospectuses since October 2, 1973?

Mr. KUDER. Of course I have no recollection.

Mr. SIMS. Could you provide for the record an answer to that question, whether or not in any P.G. & E. prospectuses substantial contingent liabilities such as those reflecting impact of energy account No. 1 have been supported?

Mr. KUDER. I am sure I could. I will do so.

[The following statement was received for the record:]

PGandE has not reported Energy Account No. 1 or other provisions of the subject contract as "substantial contingent liabilities" in prospectuses issued since October 2, 1973. The return of electric energy from Energy Account No. 1 does not qualify as a reportable contingent liability under generally accepted accounting principles.

Mr. SIMS. It seems to me that the author of this memo was aware of the effect of energy account No. 1 and raised the question as to whether or not you should put it in your prospectus. In fact, I don't know that it has been so reported.

This leads me to assume, one, the company erred in not reporting it; or, more likely, two, it is not as much a substantial contingent liability as might have been assumed.

Mr. KUDER. Who is the author of this document?

Mr. SIMS. I don't know. Could you perhaps try to determine that for the record?

Mr. KUDER. Yes.

Mr. SIMS. I presume the author is W. M. G., whoever that might have been in 1973.

Mr. KUDER. Yes.

Mr. MOSS. We shall hold the record at this point in order to receive the requested material. That can be readily ascertainable by reviewing prospectuses offered by P.G. & E.

[The following statement was received for the record:]

We are unable to say with certainty who authored Exhibit No. 3. We surmise from the fact that it is labeled a "Rate" document and is addressed to the then Vice President of the Rate Department, J. F. Roberts (since retired), that the authors were W. M. Gallavan and W. L. Fairchild who were and are employed by PGandE in the Rates and Valuation Department. However, neither Mr. Gallavan nor Mr. Fairchild recalls writing this document. It may be worth noting that in the upper right hand corner of the exhibit the words "not routed" are written in by hand; further, the document is not signed. This would indicate the possibility that the document was never anything more than an un-circulated rough draft.

Mr. SIMS. The memo which follows, the memo we have been discussing, lists some 13 benefits to P.G. & E. under the contract.

Would you turn to the fifth page, entitled page 11 down at the bottom? It is "P.G. & E. benefits that the Bureau imports from Northwest." It is entitled "P.G. & E. Benefits from Power that Bureau Imports from Northwest."

Mr. KUDER. I have it.

Mr. SIMS. I would like to read the second paragraph of that page and ask you a question about it.

"In 1972, the first year that the full 400 megawatts was available"—and they refer to megawatts from Centralia—"P.G. & E. purchased all of the 400 megawatts of capacity and 1.2 billion kilowatt hours of import energy. The savings passed on to P.G. & E. customers for that year was about \$7 million on capacity and \$930,000 on energy. Assuming that P.G. & E. customers could invest this savings at approximately 7 percent, the benefit to them would be about \$490,000 for capacity and \$65,000 for energy each year that the power remains in the account."

Of this 7-percent figure cited here in the context of Northwest Power, it is generally understood to be the time value of money, an economic concept. Is that your knowledge? Do you know what the term "time value of money" refers to?

Mr. KUDER. The longer you can keep money and invest it, it has a time value. If you look at the present-day value or future value, it presents a problem. You can use any figure you want.

Mr. SIMS. If P.G. & E. does not have to spend money at a point in time, such as the benefits described here because of the Northwest capacity, or they take energy such as placed in energy account No. 1, or they receive energy such as placed in energy account No. 2, is there not some benefit derived?

Mr. KUDER. No.

Mr. SIMS. Why not?

Mr. KUDER. None whatever. As this paragraph explains, there is a benefit to the customer if he gets the power cheaper and he puts the difference in the bank. He has an opportunity to invest it in savings. It does nothing for the company at all. That is why this taken out of here. They were looking for company benefits and this particular paragraph is a customer benefit.

Mr. SIMS. It is true that P.G. & E. customers benefited from this?

Mr. KUDER. Of course they benefit until their power has to be sold back to the Bureau. At that time it is an expense which is borne by P.G. & E. customers. They have a temporary benefit, a benefit until the time the power is sold back by P.G. & E. out of the bank account to the CVP.

Mr. SIMS. The difference between when the energy went into the bank and when it was taken out of the bank for 10, 15, or 20 years, the use of that money compounded could become a rather large figure, could it not?

Mr. KUDER. I think Mr. Davidson used a figure of 80 percent over a period of 20 years.

Mr. DAVIDSON. I would merely say that at 7 percent over 20 years I believe the rule of thumb would be a quadrupling of the original amount.

Mr. KUDER. In any event, the answer is that yes; there is an advantage to use of the money to the customer. The practicality is that just because he gets \$1 or \$2 off his power bill in a month he doesn't run over and put it in the bank so he does not have use of that money at all as far as investing is concerned. Maybe he buys another pair of shoes or something like that, but there is no real return on the money.

Mr. MOSS. We are getting far afield at the moment. We are getting into matters of individual judgment.

Mr. SIMS. I would like to refer to another P.G. & E. document which unfortunately has not been produced because it was simply illegible when it was Xeroxed. I file this as exhibit No. 4. It is entitled "Value of P.G. & E. Sales to CVP." It carries at date either late 1966 or early 1967.

I would like to read from it and represent it for what it is.

Mr. KUDER. Is it a letter?

Mr. SIMS. P.G. & E. memo. I will read from it, last page, and to be sure that a legible copy of this memo will be placed in the record for all to evaluate for just what it is.

[Due to the poor quality of the copy, it is not represented here but retained in the subcommittee's files.]

Mr. SIMS. It states: "The company has paid the CVP \$9 per kilowatt leaving about \$9 savings to the company per kilowatt for the average of 200,000 kilowatts received over the 16-year period."

The period we speak of is 1951 through 1966 inclusive when the company, according to this P.G. & E. document, brought 19,078,000 kilowatt hours of electricity from the CVP.

These savings, by delaying of new construction, have been worth about \$1.8 million per year to the company, or a total of nearly \$29 million to date.

As I read this memo, it talks about the banking concept. It is talking about a deferral of construction stemming from the use of CVP electricity which is then recorded in the bank account.

As I read this memo it states, and I quote again because it may be hard for you to follow just hearing it once and not having it before you, "This savings, by delaying of new construction, has been worth about \$1.8 million per year to the company, or a total of nearly \$29 million to date."

It states in the memo that the period discussed is 1951 through 1966.

Mr. KUDER. There was no capacity account then.

Mr. SIMS. This refers to energy account No. 1, does it not?

Mr. KUDER. I would assume so. If that is so, what has deferral of construction got to do with it?

Mr. SIMS. I presume from the logic expressed in the memo that P.G. & E. did not have to build additional capacity because instead they took the energy—

Mr. MOSS. It is not necessary for us to explain. Mr. Kuder, that would be an unreasonable burden to put on us to explain a memorandum prepared by your people. We are asking you to explain it.

Mr. KUDER. I would like to have a copy.

Mr. MOSS. We will see you have a copy. As a matter of fact, we will hand it to you and you can take a quick look at it.

I want to make clear we will not undertake to explain the work of other people. We have enough problems explaining our own.

Mr. KUDER. May I keep this?

Mr. MOSS. No. Look at it now and get it back up here so we can conclude with it.

Mr. SIMS. Not being as knowledgeable in these matters as you are, I thought by citing figures from P.G. & E. documents, we could perhaps agree upon what some of the effects of these bank accounts might be.

Perhaps we can hold the record open and address this question when we have a better copy and know exactly what it is.

Mr. KUDER. It would help.

Mr. SIMS. I would like to address a couple questions regarding energy account No. 2.

We will send you a copy of this, Mr. Kuder.

Mr. KUDER. Thank you.

Mr. SIMS. Inasmuch as it was originally obtained from P.G. & E. files in a discovery process, I assume a copy is still retained. This appeared in a legal brief which was made public and that is how I happened to get it.

In energy account No. 2, could you tell me how it works? Can you briefly describe how it is determined, what the cost should be when energy is taken out of energy account No. 2?

Mr. KUDER. I gave such a description in 1973 for the record. If I had it before me, I would prefer to use it. I didn't bring it with me.

The price P.G. & E. pays for CVP energy when sold in, is the same price when P.G. & E. sells energy out, plus a charge in the cost, in this case, of the purchase of the fuel, plus the service charge.

As I recall it, I even gave an example in the 1973 hearing.

Mr. SIMS. What service does the P.G. & E perform here? Can you tell me that?

Mr. KUDER. I don't understand.

Mr. SIMS. There is a service charge. What is the service?

Mr. KUDER. The service is maintaining the books on this account. The service is making it possible for the Bureau to buy it back at a later time with this credit they would not otherwise have.

If there were no account, the Bureau would sell us the energy when they could not sell it anyplace else. We would buy it, pay for it, it would be ours, and 2 or 3 years later they would need energy and would buy it back from us under the regular rate.

Under this arrangement they don't buy it under the regular rates but under this formula. Presumably they think it is a benefit.

Mr. SIMS. Do you know in percentage terms what the service charge is?

Mr. KUDER. One figure was 14 percent. Another figure was 15 percent. Fifteen percent of energy is generally regarded as a reasonable service charge throughout the United States as far as I know.

Mr. SIMS. Do you whether or not it costs P.G. & E. 14 or 15 percent to keep books on this account?

Mr. KUDER. I don't know.

Mr. SIMS. Could you provide for the record a statement addressing itself to that question, whether or not in fact it costs P.G. & E. that much to do it? I would appreciate that.

Mr. Moss. We will hold the record at this point to receive that material when it is supplied.

[The following information was received for the record:]

BANKING SERVICE CHARGES

We have not determined P.G. & E.'s costs in providing the banking service. At the present time there are no service charges in effect under Contract 2948A for sales to WAPA from either Energy Account No. 2 or the Capacity Account. Although the contract provides that there be a service charge, it does not currently specify the size of the charge. The level of the service charge to be applied to the accounts will be determined by WAPA and PGandE as part of the rate review process pursuant to Article 32 of the contract. If the parties cannot agree on an appropriate charge, the contract provides referred to FERC for final decision.

Fifteen percent was used in the energy banking transactions in the 1951 contract between the United States and PGandE. Further, a service charge of 14 percent was initially used in the present contract for the Capacity Account. Also, the 2.1805 mill rate for sales from Energy Account No. 1 includes a 15 percent service charge.

The 14 percent charge effective until April 1, 1971, under Article 22(c) (1) (i) of the contract and the 15 percent charge included in the rate for sales from Energy Account No. 1 were not derived by analyzing PGandE's "cost" of providing the banking service. They were figures used commonly in the industry as a fair and reasonable charge for similar services. The FPC has indicated this in its March 23, 1967, "Report and Comments on Proposed Agreements Between Bureau of Reclamation and Companies in California Relative to Pacific Northwest-Pacific Southwest Intertie," wherein it stated that it had numerous contracts on file with service charges of similar magnitude. Further, the FPC accepted Contract 2948A without questioning the service charges contained therein.

In the current rate review negotiations, WAPA and PGandE staff representatives agreed that because estimates showed that capacity and energy would not be withdrawn from the pertinent bank accounts prior to April 1, 1981, the date of the next contract rate adjustment pursuant to Article 32, it would be unnecessary to conduct extensive studies and negotiations on the service charges at this time.

Moreover, there is no need to develop a service charge for purposes of the current CVP rate adjustment proceeding. Since the rate studies assume no withdrawals until after 1981, the service charge is not used in the "pinch point" years. Thus, the service charge has no effect on the proposed CVP rate adjustment.

Mr. SIMS. If I might jog your memory a moment, is it true that most of the energy which went into this account went in at about 2 mills, the project rate?

Mr. KUDER. That is energy account No. 1 you are talking about?

Mr. SIMS. I am talking about energy account No. 2 prior of 1976.

Does anyone on the panel have that knowledge?

Mr. KUDER. I don't.

Mr. SIMS. Mr. Davidson?

Mr. KUDER. A lot of it would have gone in at 2 mills?

Mr. DAVIDSON. There is a sliding scale at roughly 2 mills. They purchase the great bulk at 2 mills. They would have an average figure of 2-something very minute mills.

Mr. SIMS. So, for that power which went into the account prior to 1976, the rate was between 2 and 3 mills, perhaps closer to 2?

Mr. KUDER. yes.

Mr. SIMS. Is it true that most of the power now in the account was placed in the account prior to 1976?

Mr. KUDER. It has been placed in the account up to this year, 1978.

Mr. SIMS. When CVP buys this power back, can you give me a guesstimate of what P.G. & E.'s alternate cost might be? This would be in about 1984, I presume, so it is a crystal ball type of response.

Mr. KUDER. I have people here who can give you that.

Mr. SIMS. Let's assume for discussion that at the time when P.G. & E. starts to deliver this energy from energy account No. 2 to CVP, P.G. & E. alternate costs for 32 mills. It might well be higher than that.

Mr. KUDER. I have no idea. It will be higher than 2 mills.

Mr. SIMS. As I understand it, the price to the CVP is then 30 mills under this formula. Is that correct? This is 32 minus 2?

Mr. KUDER. Roughly, that is correct. It costs us 32 and we sell it for 30.

Mr. SIMS. When you add a 14- to 15-percent service charge to that figure, you get roughly 34 mills' cost to the Government. Is that correct?

Mr. KUDER. Are you putting the service charge on the input or outgo?

Mr. SIMS. On the outgo.

Mr. KUDER. Then that would be correct.

Mr. SIMS. I am a little puzzled by this benefit of energy account No. 2. It seems that the Government has contracted to pay more for the power than they could have if they simply brought it from P.G. & E. Could you help me with this? I am truly puzzled by what the benefit to the Government is under this energy account No. 2.

Mr. KUDER. In the situation you mentioned I suppose there would be no benefit. Perhaps we should not have the account. It was supposed to be a benefit. The reason was and the hope was that the cost of energy would go down and not go up.

Mr. SIMS. I would like to talk briefly about project dependable capacity. I know this is a topic of negotiation now between the company and the Department of Energy.

Is it true that the storage in the CVP reservoirs is now higher than normal?

Mr. KUDER. yes.

Mr. SIMS. And that Western Area Power Administration has informed P.G. & E. there is enough water to support a project dependable capacity of 827 megawatts from July through December of 1978 and 812 megawatts for all of 1979?

Mr. KUDER. I don't recall those figures. The last figure I got from them was that it was 554 megawatts. This was last week.

You might be referring to an earlier letter.

Mr. SIMS. I have reference to an April 19, 1978, letter.

Mr. KUDER. That is the latest one.

Mr. SIMS. Which cites those numbers.

Mr. KUDER. I see.

Mr. SIMS. I suppose we should place that in the record.

Mr. MOSS. Place the letter in the record at this point.

[The letter referred to follows:]

DEPARTMENT OF ENERGY,
WESTERN AREA POWER ADMINISTRATION,
Sacramento, Calif., April 19, 1978.

Mr. B. W. SHACKELFORD,
Senior Vice President,
Pacific Gas and Electric Co.,
San Francisco, Calif.

DEAR MR. SHACKELFORD: Because of the drought conditions that existed in California during 1976-77, the Bureau of Reclamation (Bureau) in a letter to you dated June 21, 1977, declared the Project Dependable Capacity (PDC) of the Central Valley Project (CVP) to be reduced from 349 MW to 554 MW. Also, by letter dated July 12, 1977, the Bureau requested a redetermination of PDC in accordance with Article 11(b) of Contract 14-06-200-2948A (Contract). In view of (1) the wet 1977-78 winter which has restored the storage in CVP reservoirs to better than normal levels, (2) the short duration and severity of the drought, and (3) the results of the attached study (Attachment 1), the Western Area Power Administration (WAPA) recommends the PDC be restored to pre-drought levels starting July 1, 1978.

WAPA is aware that Article 11(b) (2) of the Contract provides that if the PDC is reduced because of drought conditions the reduced PDC shall, unless otherwise agreed, remain in effect for 5 years. However, WAPA believes that the availability of CVP hydrocapacity brought about by the wet 1977-78 winter warrants the evocation of the "unless otherwise agreed" clause of the Contract. Further, the capacity of CVP hydroplants is available and usable for meeting the area load during the 1978 summer peakload period. The latest forecast of CVP operation dated April 13, 1978, shows that 863 MW and 868 MW will be available from CVP hydroplants in July and August 1978, respectively. (A copy of the Bureau's latest forecast, which was sent to Mr. H. P. Braun by Mr. D. G. Coleman by letter dated April 18, 1978, is attached (Attachment 2).)

WAPA is also aware of the position taken by Mr. Nolan Daines in this letter of March 22, 1978, to Mr. A. L. Reynolds, Director of Audit and Investigation, Department of the Interior, on the redetermination of PDC. The position taken by Mr. Daines, which is consistent with the position stated by members of your staff in our ongoing PDC negotiations would require an analysis of the 1976-77 hydrology before a redetermination of PDC could be accomplished. WAPA takes exception to this position for the following reasons:

1. In response to a request for the hydrology data that was requested in Mr. Hall's letter of December 23, 1977, the Bureau indicates in their letter dated April 11, 1978 (Attachment 3), that it could be as long as 2 years or even more before the hydrology data for the 1975-77 period is developed. In the interim, the CVP hydrocapacity is available and usable.

2. On page 2 of his letter, Mr. Daines quotes in part the definition of the dependable capacity of a hydroelectric plant from page 19 of FPCP-35, Mr. Daines' letter quotes the first sentence of the last paragraph; however, we believe the second sentence of this paragraph which is quoted below is also pertinent.

"In cases where the streamflow records indicate that the most adverse flows are not likely to occur except at long intervals of time and are likely to be of very short duration, such abnormal limitations may be treated as a condition to be covered by the reserve capacity."

Based on our analysis of inflow to CVP reservoirs (Attachment 4), 1977 was the most critical year of record for combined inflow to CVP reservoirs. Viewed from the standpoint of the combined cumulative inflow to CVP reservoirs from the start of the year, our analysis shows the driest years of record were 1977, 1924, and 1931, in that order. It should be noted that prior to 1978, all hydro-power resource planners including PG&E, used 1931 and not 1924 at the most critical year for determining the dependable capacity of hydroelectric plants. WAPA believes that this point is significant and supports its position that 1977 was so critical that it should be treated as an aberration, the same as previous hydropower planners treated 1924.

Further, WAPA contends that the dependable capacity of a hydroplant or system should not be planned to meet all abnormal-type conditions as critical as those that occurred during the 1976-77 drought. WAPA believes such conditions should be covered by the area capacity reserves as stated in the previous quote from FPC P-35. This is in fact what occurred since the drought did not result in any blackouts or brownouts.

3. It is obvious based on current CVP reservoir storage levels that CVP hydro-capacity is available and usable to meet the area load during 1978.

WAPA believes that its recommendation to restore the PDC to predrought levels is supported, as pointed out in the previous discussion, by sound engineering planning principals. WAPA has therefore prepared a water and power operation study (Attachment 1) that demonstrates that CVP hydroplants can support a PDC of:

a. 827 MW from July 1, 1978, through December 1978.

b. 812 MW for calendar year 1979 (does not include any effects of New Melones Powerplant).

The PDC levels supported in this study have been revised from those shown in the January 22, 1975, letter of agreement to reflect project use pumping for the Cross Valley Canal. (Please refer to your letter dated January 30, 1976, to the Bureau on this subject.)

Since many of WAPA's future power marketing plans depend on your response to this recommendation, it would be appreciated if your response is received by June 1, 1978. Further, members of my staff and I are available to meet with you and members of your staff at anytime to discuss this recommendation.

Sincerely yours,

GORDON R. ESTES,
Acting Area Manager.

[The following letter was subsequently received for the record:]

DEPARTMENT OF ENERGY,
WESTERN AREA POWER ADMINISTRATION,
Sacramento, Calif., June 23, 1978.

MR. B. W. SHACKELFORD,
*Senior Vice President,
Pacific Gas and Electric Co.,
San Francisco, Calif.*

DEAR MR. SHACKELFORD: By letter dated June 21, 1977, the Bureau of Reclamation (Bureau), whose power marketing functions were on October 1, 1977, transferred to the Western Area Power Administration (WAPA) by the Department of Energy Organization Act, 42 U.S.C. 7101, 7152 (1977), declared (because of the then drought conditions) a reduction in the Project Dependable Capacity (PDC)—determined in accordance with provisions of Contract 14-06-200-2948A (Contract 2948A)—from 849 MW to 554 MW effective July 1, 1977.

Storage in Central Valley Project (CVP) reservoirs are well above normal levels and CVP hydroplants have a considerable amount of capacity available for use in meeting the northern California area load. The dependability of CVP hydrocapacity was demonstrated in the studies transmitted with our April 19, 1978, letter that recommended that the PDC be restored to predrought levels. Further, the availability of CVP hydrocapacity has been shown in forecasts of CVP operations transmitted to your company by the Bureau via letters dated April 18, 1978, May 11, 1978, and June 16, 1978.

It is WAPA's position that Contract 2984A requires that full consideration be given to actual availability of CVP hydrocapacity to insure the optimum utilization of CVP facilities. We feel that continued acceptance of a PDC that's lower than the demonstrated capability of CVP hydroplants would be contrary to the

intent of reclamation law under which we operate and would run counter to the public interest especially in the present context of the immediate need for capacity to meet the peak power demand of northern California this summer.

Further, the availability of CVP hydrocapacity is known to PG&E operating personnel; however, the only amount of CVP capacity that can be counted on, except during emergency conditions as set forth in Article 18(a)(2), is the amount declared to be available. If the PDC remains at the current level of 554 MW, there is no reason for CVP operators to declare available the full potential of CVP hydroplants. Since we believe that it will likely require fully cooperative efforts of all parties to meet the peak power demand of northern California this summer, WAPA hereby declares the PDC to be as follows:

1. 827 MW, effective July 1, 1978, through December 31, 1978.

2. 812 MW, effective January 1, 1979, through December 31, 1979.

Unless otherwise agreed, the PDC's declared above will be used to compute the net power bill between PG&E and WAPA starting with the July 1978 billing.

Further, members of my staff and I are available to meet with you and members of your staff at anytime to discuss this situation.

Sincerely yours,

GORDON R. ESTES,
Area Manager.

Mr. SIMS. Why won't P.G. & E. agree to at least some kind of interim increase in project dependable capacity pending these engineering studies, hydrology studies, and all of these other studies which you have referred to in your opening statement?

Mr. KUDER. I don't know whether we will or not.

Mr. SIMS. Is there any argument on the part of P.G. & E. to the Bureau's figures for CVP in these 2 years? This refers to water in the reservoirs and snow on the ground, does it not?

Mr. KUDER. It refers to what the flows would be at a critical time in a dry period. That is what it refers to.

Mr. SIMS. I am talking about the numbers that the Bureau said they can support. It is not likely that they are greatly wrong, is it, based on your knowledge of their estimating ability—snow on the ground, water in the dams, and this kind of thing? These are fairly conservative figures and chances are they will be able actually to support this. Would that not be correct?

Mr. KUDER. I suppose what they are looking at is the hydrology period from 1930 through 1933. Now we have experienced a worse one, and it seems to me we should step back and take a look at what the situation is now before we leap ahead and immediately say, "Let's add another 300 or 400 megawatts to the capacity."

I don't know. I really don't know what the company will say. We have had the letter only 6 days.

Mr. SIMS. These numbers are not a great mystery to the company, are they? The PDC for years was even higher than that. You know what the capacity of the reservoirs is. It has been raining obviously and the reservoirs are full.

Mr. KUDER. Just because the reservoirs are full—

Mr. SIMS. Just because you got this letter sometime after it was sent on the 19th of April does not obviate this other knowledge as to what the project has.

Mr. KUDER. But just because the reservoirs are full today, I don't know and the engineers will have to tell me what effect that would have at a critical period on the dry cycle for CVP. It may have. I don't know.

Mr. SIMS. Is there any objection as far as your personal opinion is concerned, knowing you are not the president of P.G. & E. nor can you commit the board or the stockholders, would you have any personal objections to raising PDC back up as an interim measure?

Mr. KUDER. You mean tomorrow or next week?

Mr. SIMS. Yes.

Mr. KUDER. I would have to go to my experts. I have some right in this room. I can ask them.

Mr. SIMS. Raising as an interim measure, then sitting down in a true scholarly and engineering fashion for as many years as it took to work out an acceptable agreement as to the hydrology and the effect of the drought? Would you have any personal objection to that?

Mr. KUDER. I have no comment or opinion on that at all. I just have no idea.

Mr. SIMS. Is it not true and that under the Federal Power Commission's generally accepted definition of dependable capacity for hydroplants, instances of adverse stream flows are not likely to occur except at long intervals and are likely to be of short duration? Such abnormal conditions may be treated as a condition covered by the reserve capacity of the area.

Mr. KUDER. If you count future reserve capacity in contemplating dry periods. We don't. We don't have reserves to meet dry periods. That is why project dependable capacity goes down in a drought.

Mr. SIMS. Isn't this in fact what happened last year? The area reserve capacity took up whatever slack was created by the drought?

Mr. KUDER. The area reserve capacity was invaded by the shortage of power caused by the drought and it fell below what would have been the reserve margin needed to support the reliability of service in the area.

Mr. SIMS. What year does P.G. & E., as well as other hydropower resource planners, use as the most critical year for determining project interval capacity?

Mr. KUDER. They don't use a critical year. They use a series of critical years.

For our own operations we use 1928, I think, to 1934. That period was the most severe. By negotiation with the Bureau we gave them a shorter period, 1930 through 1933 or 1934, which was less onerous on them than it was on our own plants.

Mr. SIMS. The year 1924, as I understand it, was drier than the year 1931. Yet the Bureau and P.G. & E. agreed to use the timespan, including the year 1931.

Mr. KUDER. Yes. I don't remember the circumstances of that but that simply is another illustration of what we did. At that point, if your figures are right, and I think they are, we used a less severe period than 1924. We also used a shorter critical period than we use for ourselves. This is part of the negotiation where the Bureau wanted to have more dependable capacity than they would have had under the rules we normally apply for ourselves.

Mr. SIMS. By this same logic why should not 1977 be substituted for 1931 or the period? If you have already excluded an even drier year I don't follow the logic by which you would pick 1977 for study.

Mr. KUDER. I don't understand—

Mr. SIMS. And hold up, in effect, a redetermination of project dependable capacity.

Mr. KUDER. I don't know what we will do. The study provides for the driest period of record.

Mr. SIMS. Previously the driest year of record was 1924.

Mr. KUDER. Yes. Then it goes on to say—assumed to be, in those days 1951, assumed to be this 1930–33.

That does not mean one way or the other what you will do for a period like 1976 or 1977, except it says in that period of time you use the driest period.

Mr. SIMS. I would like to put into the record exhibit 9, which is relevant to this discussion.

[Exhibit 9 referred to follows:]

EXHIBIT No. 9

PACIFIC GAS & ELECTRIC CO., RESPONSES TO COMMISSION ORDER 77-622-14

Utility: Pacific Gas and Electric Co.

Form number: R-1.

SUMMARY OF LOADS AND RESOURCES

Required reserves

The required reserves shown on line 8 of this form are the installed reserves necessary to maintain reliability. However, they do not include sufficient allowances for current uncertainties in load forecast and resource completion schedules. The required planned reserves will be higher than those shown on line 8. **"Form R-11 contains a more complete discussion."**

Hydroelectric capability

To establish hydroelectric values for planning purposes, PGandE uses computer studies to simulate the operation of the hydro systems during the period for which water records are available. These studies provide information to determine adverse year hydro capability. This is itemized by plant in Form R-3.

The drought has resulted in 1977 hydro capacity which is less than the adverse year values previously used for planning. When the drought ends and basic water supply data for the period is available, hydro studies will be up-dated and **new hydro capabilities determined. Pending completion of these studies, PGandE has preliminarily reduced its adverse hydro capability by 250 megawatts. Actual performance of the individual plants and systems during 1977 is the basis for this reduction.**

Other hydro projects; part of PG and E area resources for planning

Owner/plant or project:

City and county of San Francisco:

Capacity
August 31 MW

Dion R. Holm ----- 135.9

Kirkwood ----- 50.3

Moccasin ----- 88.0

Sacramento MUD:

Camino ----- 150.0

Jaybird 1 and 2 ----- 139.0

Loon Lake ----- 79.6

Robbs Peak ----- 22.0

Union Valley ----- 35.8

White Rock 1 and 2 ----- 223.0

U.S. CVP Project ----- 875.0

State of California Hyatt-Thermalito (P.G. & E. share) ----- 477.7

Mr. SIMS. Exhibit 9 is a Pacific Gas and Electric Co. response to the California Energy Commission Order No. 77622-14 published by the Energy Commission on September 30, 1977.

Mr. Kuder, I direct your attention to the second page and read the last sentence.

"Pending completion of these studies,"—these being the studies of 1977 hydrology—"P.G. & E. has preliminarily reduced its adverse hydro capability by 250 megawatts. Actual performance of the individual plants and systems during 1977 is the basis for this reduction."

P.G. & E. has much more hydro than the Central Valley project, does it not?

Mr. KUDER. Yes.

Mr. SIMS. The Central Valley project has some 1490 megawatts and P.G. & E. has what—12, 14,000 megawatts?

Mr. KUDER. Oh, no.

Mr. SIMS. What is the figure? They have more than the CVP.

Mr. KUDER. I think between 3,000, 4,000 and 5,000.

Mr. SIMS. Yet, P.G. & E. reduced its rating 250 megawatts, whereas the Western Area Power Administration reduced its somewhat smaller hydro by 297 megawatts, which, if I subtract the difference between 851 and 554 comes to that amount.

Again I am puzzled.

Mr. KUDER. For all I know you are mixing apples and oranges and I cannot tell from reading this whether it is a valid comparison.

Mr. SIMS. Could you comment?

Mr. KUDER. I have someone here who can if you will listen to him.

Mr. SIMS. It would be my pleasure.

Mr. KUDER. Mr. Heller.

Mr. MOSS. Mr. Heller, would you come forward and be sworn?

Do you solemnly swear that the testimony you are about to give this subcommittee shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. HELLER. I do.

Mr. MOSS. Identify yourself for the reporter for the hearing record.

Mr. HELLER. Jesse E. Heller.

Mr. MOSS. Your occupation and address?

Mr. HELLER. Supervising civil engineer, P.G. & E., Pacific Gas & Electric Co., 77 Beale Street, San Francisco, Calif.

Mr. MOSS. Please have a seat.

Mr. SIMS. Could you help me and the subcommittee and explain how it is that P.G. & E., with far greater hydro resources, based on actual performance reduced its rating only 250 megawatts whereas the Government reduced its own 297 megawatts?

Mr. HELLER. I can try. There is no direct relationship because the P.G. & E. reservoirs have entirely different characteristics than the Bureau of Reclamation reservoirs.

Mr. SIMS. Are their characteristics so different as to explain a percentage of this magnitude?

Mr. HELLER. Very much so. We have few large reservoirs that have changed as markedly as the Bureau's reservoirs.

Mr. SIMS. Mr. Davidson?

Mr. DAVIDSON. I would like to find out something here. The 250 megawatts you refer to I believe include CVP and the area system.

If you look toward R-3, the second page—

Mr. SIMS. I will get to that. Is this 250-megawatt figure reflective of the area rather than simply P.G. & E. hydro?

Mr. HELLER. I don't know. This is the first time I have seen this.

Mr. SIMS. Could we hold the record open to get an answer, Mr. Chairman.

Mr. Moss. Indeed.

[The following information was received for the committee:]

"Responses to Commission Order 77-622-14" is a voluminous report concerning estimated loads and resources prepared by all California utilities for the California Energy Resources Conservation and Development Commission. The report was submitted on September 30, 1977, and, because of the preparation time involved, is based on load and resource studies which began several months earlier.

The 875 megawatts stated at page R3-21 was derived from PGandE records at the time the report was prepared. The preliminary estimated reduction of hydro capability of 250 megawatts shown on page R1-9 of the report was the estimated total reduction for hydro capacity in the PGandE area, including the reduction in the CVP. Of course, it now appears the 250 megawatt preliminary estimate was low. The preliminary estimate was made before the USBR informed PGandE that the PDC of the CVP was reduced to 554 megawatts and was made without the benefit of theoretical hydro operational studies. As mentioned in PGandE's opening statement in this hearing, an accurate assessment of the effect of the drought on the dependable capacity of the CVP, or on PGandE's hydro, can not be made until hydrologic data for the drought period is assembled and updated operational studies are completed. Until these studies are completed only preliminary estimates of the effect of the drought can be made.

The effect of the drought on the dependable capacity of the CVP and on PGandE's hydro can not be proportional to the installed capacity of the two systems. This is because, in general, the CVP is composed of large reservoirs with low head power plants. The power plant capability is sensitive to reductions in reservoir water levels. Also, the water release pattern for the CVP is controlled by irrigation and other water related requirements; therefore, the water levels can not be kept at high levels solely to maximize power production. On the other hand, in general, PGandE's hydro plants are designed primarily for power production and are generally not as sensitive to changes in the reservoir water levels. Moreover, it is worth noting that PGandE planned on the basis of the most adverse hydrologic period of record whereas the CVP did not.

Mr. SIMS. Mr. Heller, would you turn to the next page?

Mr. Moss. Who is to supply that response?

Mr. KUDER. P.G. & E. will supply the answer.

Mr. SIMS. I believe they are the ones who meet the area load and are supposedly the only ones who can supply the response.

On the next page, reading on the left, I see: "United States Central Valley Project."

Reading across it states: "Capacity August 31, 1977 in megawatts." I see 875.

Do you see that, Mr. Heller?

Mr. HELLER. Yes.

Mr. SIMS. Am I correct in saying that this is the capacity rating that P.G. & E. assigned to the Government hydropower as of that date in 1977? Is that a fair characterization of this document to your knowledge?

Mr. HELLER. That is what it states here. I cannot understand it because from what I know of that is not the figure we used.

Mr. SIMS. This is at the same time that the Project Dependable capacity was 554 megawatts. Is that correct?

Mr. HELLER. This is dated September 30, 1977. At that time the Project Dependable capacity was 554.

Mr. SIMS. I am still confused.

Mr. HELLER. I am confused, too. I don't understand the exhibit.

Mr. SIMS. We have the actual deliveries to P.G. & E. at the peak. We can disagree as to how we should describe what those deliveries represent. However, we do not disagree that during 1977 that peak was in August, at the height of the drought, after the Project De-

pendable capacity was reduced. Yet at P.G. & E's peak significant volumes of megawatts were delivered to P.G. & E. from CVP.

Now we also have this document we have just discussed where apparently P.G. & E. has engaged in a much smaller percentage reduction in either its hydro or possibly the entire area hydro than the CVP reduction.

Then we have P.G. & E.'s own estimates of what the capacity of the CVP hydro was on the 31st of August in 1977, which is 875 megawatts at a time when the Project Dependable capacity was 554 megawatts.

I simply must admit that I am terribly confused by all these figures and I am left with the impression that the 554 megawatt capacity was far too low and that we plan perhaps to discuss this next with the Government witnesses.

Is there anything you can tell us now?

Mr. HELLER. Might I take a minute to read the memo first?

Mr. SIMS. Could you explain these anomalies to us?

In my present state of knowledge I am left with the inescapable conclusion that Project Dependable capacity is too low. It should not have been reduced that low in the first place. It should be as quickly as possible raised significantly higher.

Mr. HELLER. I think these figures must represent what was used in our planning before the drought occurred.

Mr. MOSS. Let's explore that. Exactly what is Commission Order 77-622-11?

Mr. HELLER. I have no idea.

Mr. SIMS. Perhaps we can hold the record open.

Mr. MOSS. Does Mr. Kuder know what that order is? This is a response by P.G. & E. to the California Energy Commission.

Mr. KUDER. Yes.

Mr. MOSS. Therefore, we assume it is filed in connection with the proceeding before that commission.

Mr. KUDER. Yes.

Mr. MOSS. Therefore, we would assume it is an accurate filing?

Mr. KUDER. Yes.

Mr. MOSS. As accurate as it is humanly possible for P.G. & E. to submit?

Mr. KUDER. Yes.

Mr. MOSS. Having established that, then the figures as to the adverse capacity here are reduced, adverse hydro capability is reduced to 250 megawatts, and that is for the entire area here under discussion.

Mr. KUDER. This appears to be an excerpt from a longer response.

Mr. MOSS. I recognize it is an excerpt. To the extent it is an excerpt on its face it represents a factual summation of material in the records of P.C. & E. Is that correct? You would not submit it otherwise, would you?

Mr. KUDER. Of course not, but—

Mr. MOSS. It would not have relevance or value then, would it?

Mr. KUDER. This page number is R1-9. This table is R3-21.

Mr. MOSS. I recognize that.

Mr. KUDER. That may or may not refer to—

Mr. MOSS. Do we have that document?

Mr. SIMS. We will obtain it. We have it in the subcommittee files in Washington.

Mr. KUDER. We will happy to send it to you with our comments——
Mr. Moss. We have it, Mr. Kuder.
[Excerpt from document referred to follows:]

[Excerpt from Pacific Gas and Electric Company responses to Commission order 77-22-14 dated September 30, 1977]

Utility : Pacific Gas & Electric Co.
Form number : R-1.

SUMMARY OF LOADS AND RESOURCES

REQUIRED RESERVES

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HYDROELECTRIC CAPABILITY

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Other hydro projects, part of PGandE area resources for planning

Owner/plant or project :

	Capacity August 31 MW
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Kirkwood-----	50.3
Moccasin-----	88.0
Sacramento MUD :	
Camino-----	150.0
Jaybird 1 and 2-----	139.0
Loon Lake-----	79.6
Robbs Peak-----	22.0
Union Valley-----	35.8
White Rock 1 and 2-----	223.0
U.S. CVP project-----	875.0
State of California Hyatt-Thermalito (PGandE share)-----	477.7

Mr. SIMS. I have no further questions, Mr. Chairman.

Mr. Moss. Mr. Greene?

Mr. GREENE. Thank you, Mr. Chairman.

I would like to pursue briefly with Mr. Kaplan one of the issues raised in his statement, deficit-in-any-year policy.

The current rate, as I understand it, contemplates a so-called pinch-point year, that year being 1981, the situation being that the costs of purchased power rise to a peak in 1981, and because of withdrawals from various bank accounts such costs fall thereafter. The consequence is that in 1981 we have a need, arising from the no-deficit policy for high revenues and after that, in 1982 and following, there is a substantial decrease in the need for revenues. Is that correct?

Mr. KAPLAN. Yes.

Mr. GREENE. So following a more or less pure approach to the no-deficit policy we would have rate increases which will rise to the peak and presumably a rate decrease after 1981. Is that correct?

Mr. KAPLAN. That is correct except I am sure you appreciate that under the method they are using they raise the rates immediately to the level they need to cover their expenses in 1981 and then keep them at that level through 1981.

That raises a separate criticism of ours. We feel they can step these increases, and even if they adhere to the no-deficit-year concept they should not raise their rates immediately to the level needed to cover the 1981 deficit.

Mr. GREENE. With respect to the policy you have now suggested, would it be consistent with section 5 of the Flood Control Act of 1944? This requires that power and energy be priced to encourage the most widespread use thereof, thereof referring to energy, at the lowest possible rates to consumers consistent with sound business principles.

Mr. KAPLAN. I believe both of these comments we have made are consistent with that, one being the step increase point of ours and the other being the no-deficit-year point.

Mr. GREENE. And is my understanding correct that on the basis of your prepared testimony you indicated that various House reports, administrative practice, and statements by Government witnesses in previous hearings, all indicate that the no-deficit-year policy is not one consistent with the foregoing? Is that correct?

Mr. KAPLAN. That is correct.

Mr. GREENE. Let me briefly turn you to a related point, the question of what is the annual cost of the project.

We have a situation in which preference customers may be required to subsidize for a short period of time sales to P.G. & E. At some point some portion of that is recaptured by withdrawals from the bank accounts. Is that correct?

Mr. KAPLAN. That is generally the situation; yes.

Mr. GREENE. As a consequence we have a situation, do we not, where current consumers may be required to pay for benefits which consumers 10 years down the road might be getting? Is that correct?

Mr. KAPLAN. That is correct.

Mr. GREENE. In your judgment is that something which is fair to current consumers facing the current rate increase? Should we not defer these costs. In effect, shave off the peak in order to allow consumers who get benefits to pay for them?

Mr. KAPLAN. I agree completely. I would make a related point that I do not think has been made this morning. You have spoken of benefits being regained by the preference customers.

Mr. GREENE. I prefaced the question—to the extent there is recapture.

Mr. KAPLAN. That is my point. I think the Bureau repayment studies do not contemplate repurchases of significance from the capacity account although they do, of course, contemplate repurchases from the energy account.

If that is correct, then the capacity—to the extent that is correct—the capacity is sold to P.G. & E. at less than cost under Mr. Frizzell's decision and then it is never repurchased.

Mr. GREENE. I have nothing further, Mr. Chairman.

Mr. Moss. Gentlemen, we have kept you longer than we had planned. We do thank you for your appearance here. I assure you it has been helpful to the committee. We hope you can go out now and have a bite of lunch while we conclude labors of the committee.

We will hear from our next panel, representatives of the Federal Departments.

We have Mr. Ogden, Mr. Estes, and Mr. Anderson.

Gentlemen, please be sworn.

Do you solemnly swear that the testimony you are about to give this subcommittee shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. OGDEN. I do.

Mr. ESTES. I do.

Mr. ANDERSON. I do.

Mr. Moss. Will you identify yourselves to the hearing reporter for the hearing record?

TESTIMONY OF DANIEL M. OGDEN, JR., DIRECTOR, OFFICE OF POWER ADMINISTRATION AND COORDINATION, DEPARTMENT OF ENERGY; GORDON ROBERT ESTES, ACTING AREA MANAGER FOR THE SACRAMENTO OFFICE, WESTERN AREA POWER ADMINISTRATION, DOE, AND JOHN D. ANDERSON, CHIEF, DIVISION OF ENGINEERING AND PLANNING, WESTERN AREA POWER ADMINISTRATION, DOE

Mr. OGDEN. I am Daniel M. Ogden. I am Director of the Office of Power Administration and Coordination, Washington, D.C.

Mr. ESTES. Gordon Robert Estes, acting area manager for the Sacramento Office of the Western Area Power Administration. My business address is 2800 Cottage Way, Sacramento.

Mr. ANDERSON. My name is John D. Anderson. I am chief of the Division of Engineering and Planning, Western Area Power Administration, Sacramento area office. My business address is 2800 Cottage Way.

Mr. OGDEN. I am at the Department of Energy, 12th and Pennsylvania Avenue, Washington.

Mr. Moss. Dr. Ogden, I understand you have a statement.

TESTIMONY OF DANIEL M. OGDEN, JR.

Mr. OGDEN. I have a brief statement.

I am Daniel Ogden. I am the newly appointed Director of the Office of Power Administration and Coordination under the Assistant Secretary for Research Applications of the Department of Energy.

Of the five power marketing agencies transferred from the Department of the Interior we are under that jurisdiction.

The Department of Energy is taking steps to establish procedures which will insure adequate opportunities for public participation in the process of adjusting power rates.

In the meantime, in the Western Area Power Administration we are continuing to use the procedures which we inherited from the Bureau of Reclamation. On March 23, 1978, the Western Area Power Ad-

ministration published in the Federal Register its "Final Procedures for Public Participation in General Adjustments in Power Rates." These procedures change the old Bureau procedures by permitting the Energy Regulatory Administration to confirm and approve interim rates. However, those procedures do specify that the Western Area Power Administration will hold both public information forums in which departmental representatives explain the proposed rates and answer questions concerning them and public comment forums in which interested persons may present their views and comments.

Since starting work April 6, I have personally devoted considerable time to the work of a task force, which was already underway, to develop a common set of new public participation procedures which will apply to all five power marketing administrations. They will retain and strengthen the valuable elements in the established procedures and add additional safeguards to insure full public review and comment. They also will provide flexibility to accommodate the different circumstances and needs of the five marketing administrations.

We expect to complete the new procedures shortly and to have them ready for public review and comment. We believe that these new procedures will eliminate the type of problem which occurred in 1974 which led the courts to find that the Bureau of Reclamation had not followed proper procedures implementing a power rate increase.

Mr. MOSS. Are there any other statements at this time?

Mr. ESTES. I have no statement.

Mr. MOSS. Mr. Sims?

Mr. SIMS. Thank you, Mr. Chairman.

One procedural question before we cover a couple substantive points which perhaps the technical experts who have accompanied you can help you with.

Mr. OGDEN. Surely.

Mr. SIMS. I understand Mr. Bardin, the head of the Economic Regulatory Administration, who now have been delegated the power by Secretary of Energy Schlesinger to review CVP rates, engaged in a discussion with Mr. Curtis, Chairman of the Federal Energy Regulatory Commission, on the subject of possibly passing this reviewing authority from Economic Regulatory Agency to Federal Economic Regulatory Commission. Is that correct?

Mr. OGDEN. I think there have been stories appearing in various publications reporting that this discussion is underway. I don't think it is inappropriate to report that these discussions are underway.

The Secretary, of course, has not received a formal proposal upon which he can act, so I am in no position to indicate what Mr. Schlesinger's wish might be.

However, there is under active discussion in the Department the possibility of transferring from the ERA to the Federal Regulatory Commission the process of review of rates. FPC used to exercise this over Bonneville and Southwestern.

Mr. SIMS. If this transfer is effected, then the same agency which proposes the rates would not also dispose. Is that so?

Mr. OGDEN. That is right. That is one of the objectives Assistant Secretary McIsaac is encouraging. He wishes to have independent review by the Commission.

Mr. SIMS. This would presumably eliminate the possibility of ever again having a political appointee—which occurred when a political appointee was in the Department of the Interior and overruled his technical experts—and have that now happen under a political appointee in the Department of Energy. Is that correct?

Mr. OGDEN. That is correct.

Mr. SIMS. Another point. In sitting through much of the public comment forum yesterday I think I can express the likely desire of at least the subcommittee staff, and perhaps the members of the subcommittee, that a review by a body such as FERC define procedures which can possibly engage in cross examination on the record before an administrative law judge. That would be a tremendous benefit not only to the customers but to the Congress.

Mr. OGDEN. Yes.

Mr. SIMS. Because history of the current style of the Department of the Interior, then the Department of Energy, and the rate increases has not been a good one. In fact, we are here with this interim rate increase now because the previous one was thrown out of court.

There are still serious procedural questions regarding increase methodology. I understand the California Power Administration has reserved the right to challenge the court 1976 decision. If that decision were overturned, it is obvious that the basis for the current rate would again collapse and there would have to be a whole new process and new studies, and at some point in time the Department of Energy must insure that all of the outstanding legal issues are decided, that a fair dependable process is established, and I wonder whether you might simply assure us here and now that that is your wish, and that you will communicate this to your superiors in the Department of Energy in the strongest possible terms.

Mr. OGDEN. Yes, sir. That is certainly our intention.

I would underscore that the Federal Power Administration has enjoyed this kind of situation for some time.

The Bureau of Reclamation had decisions determined within the Department, unlike Bonneville.

It is our intention that all five power marketing agencies pursue the same marketing process so there is this independent evaluation.

Mr. SIMS. Mr. Estes, I would like to talk about a couple technical points which currently affect CVP.

Mr. ESTES. Yes, sir.

Mr. SIMS. The Government's contract with P.G. & E. now provides that a redetermination of CVP remains in effect for 5 years unless changed by agreement of both parties.

Could you explain the logic behind this 5-year figure?

Mr. ESTES. In the contract the original length of time was 4 years. The concept behind that was that it took 4 years to establish replacement capacity if dependable capacity reduced.

Shortly after the contract was signed the length of time to establish new capacity in the area increased to 5 years. The company requested that the time limit be extended to 5 years rather than 4, and the Bureau agreed to this.

Mr. SIMS. So it was then assumed that it took 5 years to build a new plant, in other words?

Mr. ESTES. That is my understanding of the reasoning behind the 4-year period.

Mr. SIMS. If P.G. & E. were to build a new plant within 5 years, would this not come onstream well after the drought was over?

Mr. ESTES. It would in the case of this recent drought, yes, sir.

Mr. SIMS. Then there would be a surplus, would there not, because CVP hydro would be back up and P.G. & E. would have its new facilities, too?

Mr. ESTES. If the capacity were built and the drought were over, as it has been in this last year, yes, sir, there would be.

Mr. MOSS. Can you tell me when the project went on the line in 4 years for the last time in this country?

Mr. ESTES. The last plant, the last unit, that went into operation which increased dependable capacity was—

Mr. MOSS. You missed my point.

Mr. ESTES. I am sorry.

Mr. MOSS. You said 4 years and then 5 years was selected as a period to afford lead time to put a new plant on line.

Mr. ESTES. That is right.

Mr. MOSS. I assume you mean you then would start designing it, locating it, going through all of the applications and the environmental issues, and whatnot.

Mr. ESTES. Yes, sir.

Mr. MOSS. And order the generators and miraculously bring it on line in 5 years.

I am interested in knowing when the last plant ever succeeded in going on the line in 5 years anywhere in this country.

Mr. ESTES. I am sorry, I can't answer that.

Mr. MOSS. Why in the world is there such a departure from reality in the Department, to accept this figure for any reason? What value has it?

Mr. ESTES. It was my understanding that this was a reasonable period of time back at the time that contract was signed. Right now I believe it is—

Mr. MOSS. You just extended it another year. What was the reason for that? A year does not do a bit of good to bring a plant on line. It takes you that much time to think about the next project.

Mr. ESTES. I agree it is a very short period of time.

Mr. MOSS. It can have a significant effect on the economics of the project, however, can it not?

Mr. ESTES. Yes.

Mr. MOSS. Does not the Department have a responsibility to consider that kind of an impact?

Mr. ESTES. Yes, sir, I think it does.

Mr. MOSS. Yet there does not seem to have been that consideration evidenced here by this rather generous extension of time for another year.

Mr. ESTES. I cannot answer as to all the thoughts that went into the extension of the extra year.

Mr. MOSS. I can. I think very little thought went into it, to be very candid with you. I have been dealing with the project and the agencies for only 26 years now. Regrettably it demonstrates the depth of

consideration that goes into many of these things. That is why I think we have basically some pretty serious deficiencies in how we administer, and now we try to correct it by overreacting and putting an unreasonable burden on the people of an area who come to depend upon the project power.

Mr. ESTES. Yes, sir.

Mr. MOSS. I say that as one who also fought to get some of this stuff on the line.

Continue.

Mr. SIMS. Mr. Estes, the Central Valley project has as one of its components that San Luis pump storage unit. Is that correct?

Mr. ESTES. Yes.

Mr. SIMS. If I can oversimplify, this is a generating facility which during offpeak times pumps energy into a reservoir for release during peak demand. Is that correct?

Mr. ESTES. That is the principle.

Mr. SIMS. That is the theory behind it?

Mr. ESTES. Yes.

Mr. SIMS. Therefore, the electricity is cheaper, less value offpeak than onpeak. The theory behind the pump storage unit is that electricity is provided onpeak. Is that correct?

Mr. ESTES. To make capacity available; yes.

Mr. SIMS. Has the San Luis pump storage increased CVP capacity of the Central Valley project?

Mr. ESTES. No. The theory behind pump storage is that it takes more energy to pump water into the reservoir than you get out when water is released. Our dependable capacity is critical on an energy basis.

Mr. Anderson can explain this in more detail.

Mr. SIMS. What capacity in megawatts is theoretically available from the San Luis pump storage facility at peak? Is it approximately 200 megawatts?

Mr. ESTES. The Bureau is in partnership with the State in this particular facility. The Bureau's portion when the reservoir is full is 202 megawatts of capability.

Mr. SIMS. You say even though this facility had 202 megawatts that it can release presumably at peak demand time, the effect of this is to reduce project dependable capacity?

Mr. ESTES. Primarily because dependable capacity is determined with an associated amount of energy.

Mr. ANDERSON. The San Luis pump storage unit is not the typical pump storage unit as we read about in the utility literature. The San Luis unit was planned and designed to store water during the wet winter months, and to release this water during the summer period to supply water to the San Luis units, the Westlands Irrigation District and other districts.

In the determination of project dependable capacity there is a formula set forth in the document called Reclamation Study. This study requires a certain limit of kilowatt hours per kilowatt of energy with each firm kilowatt of dependable capacity.

In a pump storage unit, any unit, any utility, it takes more energy to pump the water in than you get back.

In the concept of the Reclamation Study the pumping energy is treated as project use energy, and the study requires that all project use energy must be taken into account first and any residual energy is then used to firm up remaining capacity of the project.

With San Luis using more energy than it produces it would have a tendency to reduce dependable capacity rather than increasing it.

Mr. SIMS. So the Government consciously constructed a facility which had the effect of reducing its dependable capacity?

Mr. ANDERSON. Yes; but the—

Mr. SIMS. Presumably it provided other benefits.

Mr. ANDERSON. Yes. It was basically a water resource project. The reasoning here behind the project was to develop a water supply for the San Luis unit.

As I understand reclamation policy and philosophy in supplying water, that is the first consideration. Power happened as a result of that.

Mr. SIMS. Do you know of any reason or any method by which this can be changed so at least storage does not hurt the Government? Is there some logic in requesting some help from the Department of Energy attorneys in Washington on this point?

Mr. Ogden?

Mr. OGDEN. I think intrinsically it is not hurting the Government.

Mr. SIMS. In fact it has the effect of reducing Project Dependable Capacity and thereby reducing the Government revenues under this concept.

Mr. OGDEN. But you are selling energy at peak which is more valuable than the dump energy you pump up.

Mr. SIMS. Does the net effect of this give revenues to the Government? In other words, the energy sold at peak is more valuable than the loss to the Government over the years since San Luis was constructed?

Mr. ANDERSON. If you speak of the Government in terms of the Nation—

Mr. SIMS. I speak of the Government in terms of the Central Valley project.

Mr. ANDERSON. The Central Valley project, as the contract with P.G. & E. is put together, energy has one rate and capacity has one rate. This additional benefit which may be associated with the onpeak energy generation is not realized by the Government.

Mr. SIMS. Sounds like quite a facility.

Since the initial contract between the Bureau of Reclamation and P.G. & E. in 1951, P.G. & E. has been managing the area load. Is that correct?

Mr. ESTES. That is correct.

Mr. SIMS. In other words, P.G. & E. schedules the Central Valley project generation, receives the power, allocates this, and it also fits the generating facility into something called the load curve which generally means that P.G. & E. decides which plants they should operate and when they should be operated to optimize the plants as to demand.

Mr. ESTES. Within limits of our water schedules and availability.

Mr. SIMS. So P.G. & E. is very familiar with the CVP system, its characteristics, reliability, and its essential worth to the company. Do you think that is a fair statement?

Mr. ESTES. Yes.

Mr. SIMS. During negotiations leading to the 1951 and 1967 contracts, do you think that the Bureau of Reclamation representatives were equally familiar with the P.G. & E. system and were able to gage equally as well as P.G. & E. the value of the Central Valley project to P.G. & E.?

Mr. ESTES. I was not in the 1961 and 1967 negotiations. I was not part of those negotiations but I feel certain that the Government people did not have sufficient knowledge or total knowledge of the P.G. & E. method of operation and fitting Bureau facilities into the area.

Mr. SIMS. These load curves are rather fundamental documents, are they not, in reviewing the operation of a power system and evaluating the worth of the various plants or the components of a system?

Mr. ESTES. That is correct.

Mr. SIMS. Does the Department of Energy, Western Area Power Administration, have up-to-date copies of Pacific Gas & Electric Co. load curves and plant utilization plans for this integrated system?

Mr. ESTES. No, sir.

Mr. SIMS. Did the Bureau have such studies prior to the 1951 or the 1967 contract attempts to your knowledge?

Mr. ESTES. Not in their possession. I believe there were personnel in the Bureau office that saw the area load curves but they did not have copies of them.

Mr. S.MS. I would like to hand the witnesses now exhibit No. 5. This exhibit is an interrogatory taken from a proceeding before the Federal Energy Regulatory Commission, docket E-7796 and E-7777, involving Pacific Power & Light and Pacific Gas & Electric Co.

These are answers to interrogatories of the Northern California Power Agency.

[Exhibit No. 5 referred to follows:]

EXHIBIT No. 5

UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

Pacific Power and Light, Docket No. E-7796

Pacific Gas and Electric Co., Docket No. E-7777

ANSWERS OF PACIFIC GAS AND ELECTRIC CO. TO INTERROGATORIES OF NORTHERN CALIFORNIA POWER AGENCY

The Pacific Gas and Electric Company ("PGandE") pursuant to the Presiding Administrative Law Judge's Order of June 3, 1977, and in accordance with the rulings made on January 6, 1978, hereby serves its answers to the Interrogatories Propounded to PGandE by the Northern California Power Agency and its members ("NCPA").

INTRODUCTION

PGandE's answers employ the definitions set forth in the Interrogatories with the following modification and addition:

"Northern and Central California control area", PGandE control area", and "Subarea D of the Pacific Southwest Power Area" are equivalent terms.

The answers use the same numbering system as was used in the Interrogatories.

The text of the Interrogatories includes NCPA's clarifications in response to PGandE's objections and as a result may vary from the filed set of Interrogatories.

Where PGandE has objected to an interrogatory the text of the interrogatory is not repeated; otherwise the interrogatory is repeated prior to the answer.

Interrogatory 9.—Id.

Interrogatory 10.—Id.

Interrogatory 11.—See the answer to Interrogatory VI. 2, supra.

VII. NCPA INTERROGATORIES FOR WILLIAM B. KUDER OF PACIFIC GAS AND ELECTRIC CO.

*Interrogatory 1.—*What is your name, office address, and present position with Pacific Gas and Electric Company (PG&E)?

Answer 1. William B. Kuder, 77 Beale Street, San Francisco, California, 94106, is retired Assistant General Counsel for PG&E and retained of counsel.

*Interrogatory 2.—*State briefly what positions you have held with PG&E, the dates thereon, and the general scope of your studies.

Answer 2. Mr. Kuder became an attorney with PG&E in 1936. Except for service with the military during World War II, he worked as an attorney handling water and contract matters. In 1970, he was made Assistant General Counsel, a position he held until his retirement in August, 1975. As Assistant General Counsel Mr. Kuder's duties depended upon assignments by the General Counsel.

*Interrogatory 3.—*Did you testify, or submit written statements, before a Subcommittee of the Committee on Government Operations, U.S. House of Representatives. ("Reuss Subcommittee") holding hearings January 23, 1974, concerning Power Rate Increases (Bureau of Reclamation, Central Valley Project, California, as follows (Tr. 749) :

"Some Low capacity Factor Peaking May Be Usable After 1985.

"The Bureau power rate adjustment study assumes 10 percent capacity factor operation for New Melones after 1990.

"Our studies of the peaking resources available in northern California indicate the presence of a surplus of low capacity factor resources, over that which could be absorbed under the load curve, until sometime after 1985. After that date, depending on load growth and the development of resources, some additional generation with capacity factors as low as 10 percent might be usable."

Answer 3. Yes.

*Interrogatory 4.—*Identify and describe each and every one of the "studies" referred to in the foregoing statement.

Answer 4. This statement was based on general knowledge from many studies rather than any specific "studies".

*Interrogatory 5.—*Produce a copy of each and every one of the "studies" referred to in the foregoing statement.

Answer 5. See Answer VII. 4, *supra*.

*Interrogatory 6.—*Interrogatory Exhibit A is a document produced by PG&E pursuant to Judge Litt's discovery order of June 14, 1974, entitled "Utilization of Hydro Capacity" dated 7-8-68 (Discovery Document #ZLE399855).

(a) Have you had occasion to read, use or refer to this document in the course of your work, and, if so, please identify and describe each such occasion including dates and uses made of the material contained therein?

(b) State the name of each person who (i) was involved in the preparation of this document, (ii) reviewed the memorandum, and (iii) was sent a copy of the memorandum.

(c) Identify, describe and furnish a copy of (i) the underlying data from which the document was prepared, and (ii) all prior and subsequent memoranda and correspondence relating to this document.

Answer 6. See Answer VI 3, *supra*.

Interrogatory 7. Did you testify or submit a written statement at the hearings described in Interrogatory No. 3, above, as follows (Tr. 729) :

"Request.—The load curve data for the P.G. & E. system in 1967 on the basis of which the Project Dependable Capacity of the CVP system was determined under the 1967 Bureau-P.G. & E. Contract :

"Response.—Project Dependable Capacity specified in the contract was not based on 1967 load curve data. Plant capacity factors were originally established in the 1951 Bureau-P.G. & E. contract. These were modified in the 1955 and 1963 amendments to that contract. Load curve data used in calculating these capacity factors were not retained in our files. In Article 11(b)(2) of the 1967 contract, the parties agreed that the capacity factors used in the 1963 amendment to 1951 contract would be continued in the new contract and applied to then existing project plants in all future redeterminations of Project Dependable Capacity."

Answer 7. Yes.

Mr. SIMS. I direct your attention to the last page, interrogatoy 7. It states:

Request: The load curve data for the P.G. & E. system in 1967 on the basis of which the Project Dependable Capacity of the CVP system was determined under the 1967 Bureau-P.G. & E. contract.

Response: Project Dependable Capacity specified in the contract was not based on 1967 load curve data. Plant capacity factors were originally established in the 1951 Bureau-P.G. & E. contract. These were modified in the 1955 and 1963 amendments to that contract. Load curve data used in calculating these capacity factors were not retained in our files.

This refers to Pacific Gas & Electric Co.

In Article 11(b) (2) of the 1967 contract, the parties agreed that the capacity factors used in the 1963 amendment to 1951 contract would be continued in the new contract and applied to then existing project plants in all future redeterminations of Project Dependable Capacity.

It appears P.G. & E. did not have curve-load data, either. Is that your reading of this paragraph?

Mr. ESTES. That is my interpretation of this; yes.

Mr. SIMS. Do you know of anyone in the United States which has the load-curve data which formed part of the foundation for this contract?

Mr. ESTES. I do not. Certainly I don't know what form the data would be in, whether it is a load curve or whatever.

Mr. SIMS. Do you think the area load curve might have changed significantly between 1951 and present?

Mr. ESTES. I would suspect it would change, yes, sir.

Mr. SIMS. Would there be any benefit whatsoever to the Government in maintaining the current load-curve in redetermining project dependable capacity?

Mr. ESTES. I think it would be a benefit, yes, sir.

Mr. SIMS. Do you know of any plans that the Government currently has to obtain such data?

Mr. ESTES. We have not asked for this data.

Mr. SIMS. Why not? Have you asked for it previously? Has the Bureau previously asked for this data?

Mr. ESTES. We have been furnished data by P.G. & E. that could be used to indicate what this load-curve might be. It is very difficult to construct that data ourselves. We have not been able to use that data.

Mr. SIMS. Mr. Estes, do you think it is a good idea to rely completely on what P.G. & E. tells you and when the company's economic interests are at stake? You have a certain fiduciary relationship to the rate-payers and taxpayers of this country.

Mr. ESTES. We certainly feel an obligation; yes.

Mr. SIMS. I don't presume P.G. & E. would necessarily mislead you but do you feel comfortable taking a chance?

Mr. ESTES. Not comfortable, no, sir.

Mr. SIMS. Yet no one, including P.G. & E., if I read this statement correctly, has this data which forms an essential part of the contract.

In 1974, the previous hearings on this Central Valley project, P.G. & E. submitted for the record to the House Government Operations Committee hearings a statement, which was also placed in the record of the Bureau of Reclamation proceeding on Federal power-rate adjustments.

The P.G. & E. statement noted in part, reading from page 749 of the 1974 hearings:

Our study of the peaking resources available in Northern California indicate the presence of a surplus of low capacity factor resources over that which could be absorbed under the load curve until sometime after 1985. After that date, depending on the load growth and the development of resources, some additional generation capacity factors as low as 10 percent might be usable.

I would like to provide the witness with a copy of exhibit No. 6, which I think was referred to earlier in Mr. Davidson's statement.

Exhibit 6 is a P.G. & E. document which was received and put into the public record as part of the discovery process in a court proceeding. It is entitled "Utilization of Hydro Capacity."

[Exhibit No. 6 referred to follows:]

EXHIBIT No. 6

NCPA MOTION FOR
INTERROGATORIES
& DOCUMENT PRO-
DUCTION BY PG&E

0 7 7 0 3 3 1-
July 8, 1968

UTILIZATION OF HYDRO CAPACITY

*not to be used
may contain some
things for future
consideration.*

During the past several years a large number of hydroelectric projects have been completed in the P. G. and E. area. Several more are scheduled for completion during the next few years. Although these projects have been and are scheduled to be constructed by many different agencies, all have a common characteristic: the larger the installation is made the lower the unit cost per kilowatt. With a fixed water supply available to a plant the tendency was to make the plant as large as possible and the capacity factor as low as acceptable.

Since nearly all of these projects result in P. G. and E. paying for the capacity in one form or another, some guide was needed to determine the usefulness of hydro capacity at varying capacity factors and to some extent control the rate of installation of low capacity factor hydro in the area. The concept that has been used to achieve this is the planning requirement that the hydro capacity be fitted to the area load. This procedure enabled the Company to specify minimum acceptable capacity factors and to evaluate the future worth of initially oversized hydro installations.

It may be appropriate to mention at this time that P. G. and E. did not influence SMUD's sizing of its hydro installations. SMUD designed and constructed its hydro plants to a size that resulted in much lower capacity factors than any others in the area. (18% dry year capacity factor compared to 42% for the balance of area hydro.) During negotiations of the PG&E-SMUD Sales and Interchange Contract, PG&E was able to avoid purchasing SMUD's low capacity factor hydro by insisting and reaching agreement that SMUD's hydro would be fitted to SMUD's load.

The concept that area hydro be fitted to the area load to determine its usefulness is not one that necessarily should be continued indefinitely. If future load growth is met preponderantly by the installation of thermal capacity, the

present situation of excess low capacity factor hydro, which will continue for some time in the future, will be corrected. However, some degree of control will have to be exerted to be certain the correction does occur and that future additions of low capacity factor hydro do not again create an improper balance.

Attached are three charts which show the hydro discounts and energy margins as estimated for the period 1969 through 1980. Chart 1 shows the average megawatt discount by years. Chart 2 shows the average energy margin by years. Chart 3 shows energy margins by months for 1971, the year in which energy margins are lowest and hydro discounts are nearly at their highest. Chart 3 also shows the energy margins that would result if it was assumed that all of the discounted hydro was usable and thermal capacity was reduced so that the resulting capacity margin satisfied the capacity reserve requirement. Under this condition the energy margin would be unreasonably low as can be seen by comparing it with the full output and 50% of the output of the largest unit as shown on Chart 3.

Large thermal units are scheduled for each year of the 1972-1975 period and very little hydro capacity will be added. As a result, hydro discounts will decrease quite rapidly and energy margins will likewise increase. In our planning we should be and are starting to consider exchanges peaking or additional hydro capacity for the last half of the 1970-1980 decade in order to utilize most economically the limited amounts of such capacity that should be added. At present in connection with expiration of our Karckhoff license the Company is investigating a large pumped storage project that would replace the existing project and develop all of the remaining head to Millerton Reservoir. If such a project proves economic it would probably provide adequate peaking capacity for a five-year period. In order that the Company be free to choose the most economic source of peaking power that may be available rather than be forced to absorb capacity from others

that would be less beneficial to the Company, the Company's position should not change materially from that taken in the past. In discussions with the Bureau of Reclamation in connection with the Auburn Project and the State of California in connection with purchase of Oroville power, we have stated that additional peaking capacity from these projects could not be used before 1985.

As a practical matter, however, we believe that all of the area's hydro capacity could be considered fully usable by 1975 and that there would be room for controlled amounts of additional peaking capacity after that

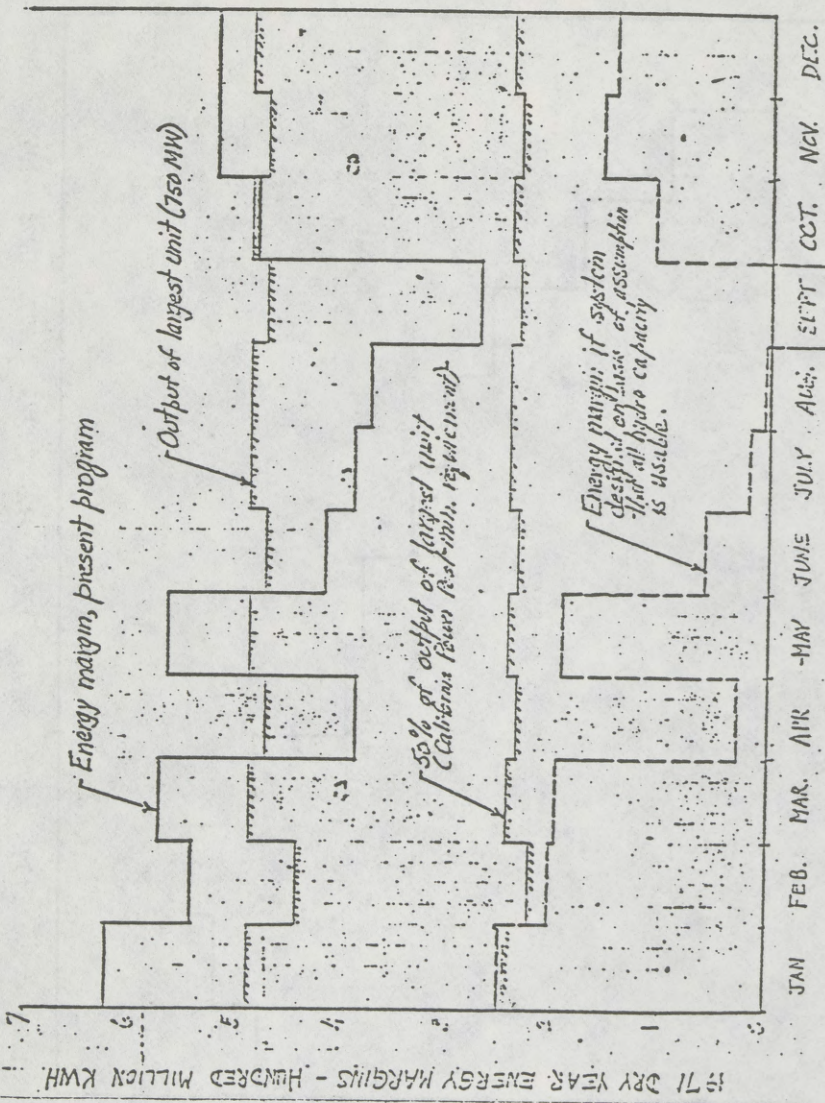
In discussions with SMUD the Company position has been that SMUD fit its hydro to its load as P. G. and E. does for the area load and as SMUD now does under the integration contract. This certainly seemed fair although it must be admitted that during the period beginning in 1974 the effect of this on SMUD is much more severe than the effect on the Company. Assuming purchase of SMUD's surplus capacity begins in 1974 this will be about the time when area discounts are becoming negligible. Although SMUD's hydro capacity is nearly all usable in the area load by this time it is quite heavily discounted in the SMUD load. It must be remembered that this situation exists because P. G. and E. paid relatively more for its higher capacity factor hydro while SMUD on the other hand chose to construct larger plants to obtain additional capacity (with no additional energy) at a low incremental cost.

Perhaps some relaxation in the requirement that SMUD fit its hydro to its load and meet its reserve obligation with thermal resources is inevitable. If such is the case, careful consideration should be given to the form of a compromise solution. SMUD's proposal should be avoided since it will result in providing reserves with a capacity factor initially low and decreasing thereafter.

Perhaps a compromise in this area should also include reconsideration of P. G. and E. purchase of SMUD surplus capacity available only on a monthly basis.







Mr. SIMS. I direct your attention to the third page of this document. Incidentally, this is dated July of 1968.

Right at the top I quote:

In discussions with the Bureau of Reclamation in connection with the Auburn Project and the State of California in connection with purchase of Oroville power, we have stated that additional peaking capacity from these projects could not be used before 1985.

This strikes me as somewhat similar to a statement I have just quoted from.

As a practical matter, however, we believe that all of the area's hydro capacity could be considered fully usable by 1975 and that there would be room for controlled amounts of additional peaking capacity after that time.

Mr. Ogden, does this appear to you as if P.G. & E. might have misled the Government if not the Congress?

Mr. OGDEN. This appears to be an inconsistent statement.

Mr. SIMS. Mr. Anderson, this is the document Mr. Davidson has been after you to attempt to authenticate, is it not?

Mr. ANDERSON. Yes; this is the document.

Mr. SIMS. Do you think it would be a good idea for either the Congress or the Western Area Power Administration to ask P.G. & E. to explain what this document is to see whether we have been misled?

Mr. ANDERSON. Yes; particularly Congress.

Mr. Moss. Let's examine that. Who is the manager of the project, Congress or Western Power Administration?

Mr. ANDERSON. We are, Mr. Congressman.

Mr. Moss. Why is not the manager interested in it as well as the overseers?

Mr. ESTES. We are.

Mr. Moss. What steps will you take? Mr. Anderson said particularly Congress and that is why I picked it up. We are not the executive branch. We oversee the executive branch.

Mr. ANDERSON. It is my understanding there are certain requirements for being forthright with Congress.

Mr. Moss. We like to see you do your jobs as we describe them in the law. We like to see it performed vigorously.

Mr. ANDERSON. Yes, sir.

Mr. SIMS. If you will refer back to Exhibit 5, the interrogatory.

Refer to the next to the last page up at the top.

Some load capacity factor peaking may be usable after 1985.

This is the same paragraph I cited from the 1974 hearings, is it not?

Mr. OGDEN. Yes.

Mr. SIMS. The second paragraph of the P.G. & E. answer refers to our studies.

Would you go down to the center of the page, answer 4, and read what P.G. & E. said about their studies?

Mr. OGDEN. Their answer says:

This statement was based on general knowledge from many studies rather than any specific studies.

I think all of this bears a careful scrutiny. As the new manager I intend to make this a high order of business.

Mr. Moss. I am pleased to hear that.

Mr. OGDEN. You bet.

Mr. SIMS. I am also pleased to hear you say that, Mr. Ogden. I had several like examples and there is obviously no need to go into that. Let's go back in time. This shows perhaps the Government was mistaken in its dealings with Pacific Gas & Electric Co.

I would like to put these in the record as exhibits 7 and 8. They are complete documents and speak for themselves. I shall not take up any more of your time in referring to them.

[Exhibits No. 7 and No. 8 referred to follow:]

EXHIBIT No. 7

MEMORANDUM

CENTRAL VALLEY PROJECT REDETERMINATION OF PROJECT DEPENDABLE CAPACITY,
SAN FRANCISCO, MARCH 23, 1962

A meeting was held on March 23, 1962, in the San Francisco offices of the Pacific Gas and Electric Company between representatives of the Bureau of Reclamation and the Company to continue discussions regarding the redetermination of the Project Dependable Capacity of the Central Valley Project, including the Trinity River Division. Those present were as follows:

U.S. Bureau of Reclamation: I. P. Head; Helen Moss; W. H. Keating; G. A. Fleming (part time), and Richard Klinke. Pacific Gas and Electric Co.: W. B. Kuder; H. R. Perry; B. W. Shackelford, and C. E. Crabtree.

TRANSMISSION LOSSES AND REACTIVE REQUIREMENTS

Mr. Perry summarized the status of studies regarding transmission losses to date. He stated that, excluding consideration of the effects of Elverta load, the Company and Bureau are in close agreement as to losses as long as the generation from northern CVP plants is 800 megawatts or less. If the 800 megawatt limit is exceeded, however, the Bureau's estimate of loss is significantly less than that estimated by the Company.

If the Bureau would limit the maximum capability of the Trinity River Division power plants to that set by assuming a 90 percent power factor (nameplate rating) no reactive problem would exist. However, because the Bureau wishes to assume a higher power factor, thus increasing the maximum capability of the Trinity plants, the total generation could exceed 925 megawatts. At those times, Company studies indicate that insufficient reactive support is available to maintain 236 kv at Cottonwood. This voltage has been obtainable for many years at Cottonwood and the CVP connections should not create any reactive burden on the Company.

Limiting the northern plants to 925 mw of generation may not be critical, Mr. Perry said, if the redetermination study shows that Project Dependable Capacity is not dependent upon having more than this amount of generation from these CVP plants. There may be some effect on declarations of Non-Dependable Capacity. However, until an operation study is presented, this cannot be determined.

Mr. Perry stated that the Company studies assumed that the McCloud-Pit Project would be in operation and, at the time the CVP was peaking, 732 megawatts would be generated on the Company's Pit River system. If McCloud-Pit power were not assumed to be available, then power from Klamath Falls might be present. Further, the studies assumed that the Company would not be obliged to provide reactive support beyond what was required if Trinity did not exist. It would be unfair to expect the Company to have to install reactive capacity at Cottonwood to support Trinity.

Mr. Klinke asked if the Company had made any studies using his suggested power factors of 98, 96, and 90 percent at Trinity, Clear Creek, and Spring Creek respectively. Mr. Perry replied that difficulty is experienced in holding the Cottonwood voltage at 236 kv if the Trinity plants are operated at the suggested power factors.

Mr. Perry added that Company studies indicate the existing table of reactive requirements, now attached to the Sale and Interchange Contract, could not be met if the Trinity plants were operated as suggested.

Mr. Klinke said that the Bureau was having difficulty checking the results presented by the Company. Part of his trouble resulted from not having complete data regarding the assumptions used for the Company studies. Mr. Fleming agreed, suggesting that conditions predicted to exist in 1966 (after McCloud-Pit) be selected and assumptions agreed to regarding the condition of transmission line loadings. It was decided that Messrs. Perry and Klinke would get together and try to agree on these necessary assumptions.

CAPACITY FACTORS

A table, summarizing the various capacity factors used in CVP studies, was distributed. A copy of this table is attached.

Mr. Shackelford stated that time had not been available to prepare a demonstration that minimum monthly capacity factors for Trinity which were equal to or smaller than those now specified for Shasta and Folsom could be used. From studies made for other purposes, the Company is convinced that absorption of peaking capacity at capacity factors of Table 1B less 20 percent (as used for studies of Trinity joint development) would be difficult in the months of January to June and, to a lesser extent, in October and November.

A study showing the area hydroelectric resources placed on a load curve, similar to the study made in 1955 for Folsom, would not only be laborious and time-consuming, Mr. Shackelford said, but would probably show that Trinity should have less favorable capacity factors than the Table 1B, less 20 percent that the Company was now offering. Furthermore, the Company no longer makes studies in this manner. An alternative method is used which shows if the total hydroelectric resources in the area are usable. If not, capacity is discounted. This discounted capacity is not identified with any particular project.

As a result, Mr. Shackelford stated that the Company was willing to permit the Bureau to operate the Trinity plants at minimum monthly capacity factors of Table 1B less 20 percent (Column 2 of the attached table) but would not agree to anything less.

Mr. Fleming said that on such a statement alone, it would be difficult for them to justify accepting capacity factors for Trinity which were less favorable than those previously given to Shasta and Folsom. He believed that they should have a study demonstrating the Company's position. Mr. Shackelford replied that, since the Company is the marketing agent in this area and is responsible for making such decisions, our statement should be sufficient justification. However, he said that he would investigate the possibility of using certain data given to the CPUC staff recently regarding applications for Contra Costa Units 6 and 7 which may convince the Bureau that the Company is properly representing the situation. If this is not sufficient, a study may have to be made. (Such a study has been started by this department and is now under way. It will be useful for our own information even if not released to the Bureau.)

Mr. Head stated that, for the time being, he will accept the capacity factors proposed by the Company for Trinity pending a study justifying their use.

Mr. Head asked if the Company had reviewed the Bureau's proposed change in the basic Table 1B capacity factors in September and December. He emphasized that, if such a change is accepted, it will not affect the capacity factors agreed upon for Trinity. Mr. Shackelford replied that the reduction in September was problematical and a definite decision could not be made as yet. The increased capacity factor in December would be desirable.

Mr. Head said that, in his opinion, this change would not affect Project Dependable Capacity, but is in regard to the energy associated with Non-Dependable Capacity which is available for less than six months. In this instance, the required energy must be equal to the sum of the monthly Table 1B capacity factors. Mr. Shackelford replied that this matter would be reviewed.

Mr. Shackelford questioned the Bureau regarding their proposed wording which provides that they may vary the average 10-day capacity factor by 15 percent, plus or minus, in any month. He asked if the Bureau wanted this provision to apply to every month or could they limit it to the months of April, May, June, September, and October (within the irrigation season periods of demand buildups or reductions). Further, he asked if words could be provided that would cause this variation to reflect variations in water demands; that is, as demands build up in the spring, capacity factors during any 10-day period would also increase from the previous 10-day period, and vice versa in the fall. Mr. Head replied that these two suggestions reflected their intent and that he would re-draft this provision.

CONTRACT PROVISIONS

On December 13, 1961, the Bureau submitted a re-draft of the USBR-PG&E Sale and Interchange Contract No. 175r-3428 which (1) consolidated the various amendments into one document, (2) developed specific provisions for inclusion of the Trinity River Division, and (3) amended certain other provisions which, in the Bureau's opinion, were not clear or which should be modified to suit current conditions.

Mr. Shackelford stated that the Company's position was that no changes should be made in this contract that were not related to redetermination. Mr. Kuder agreed, adding that the contract had been approved by all parties through the Secretary of the Interior and, unless a change was vital, it should remain unchanged. Mr. Head agreed with this, stating that, in their opinion however the changes made were necessary.

Mr. Head asked if the Company would agree to combine the various amendments into one document. Mr. Shackelford said that he would agree to this.

Mr. Shackelford asked why, in addition to re-writing the explanatory recitals, Article 2 had been omitted. Miss Moss explained that she had omitted it in order to retain the numbering of important articles in the contract. However, she agreed to re-write these recitals to include this omitted article, and still have the numbering of articles be the same.

Mr. Shackelford asked what the Bureau had in mind by asking for a new definition of the "Service Area of the Contractor". This was also related to the revised definition Preference Customers in Article 12(c) (3) which limited municipal boundaries to that which existed on October 3, 1951. Mr. Keating replied that their concern was in regard to serving their existing preference customers which become incorporated into municipalities served at retail by the Company.

Mr. Shackelford said that, if the wording proposed by the Bureau was accepted, it would also permit them to serve portions of municipalities incorporated since October 3, 1951, which the Company now serves at retail. Mr. Keating and Miss Moss said they had not thought of that. As a result, they suggested that they try to revise the wording to avoid this possibility and yet retain the concept that they wanted. Mr. Kuder, however, said that this matter had, in the past, been resolved by letter in the case regarding the City of Stockton and the Naval Supply Annex. He felt that future problems of this nature would be few and could be similarly handled by letter agreement. It was therefore agreed to leave the contract alone in regard to this point.

Mr. Kuder stated that the changes proposed by the Bureau regarding the provisions for Non-Dependable Capacity had been agreed upon in 1951, 1955, and 1959. At those times, concessions had been made by both parties resulting in what were believed to be fair and equitable contract provisions. Therefore, he felt that no change should be made in them now. The sole exception, however, was the reduction in notice from 60 to 30 days. He felt that if the Company could handle such capacity on such notice, this change would be acceptable.

In this regard, Mr. Head said that, for example, if a storm occurred in November making Non-Dependable Capacity available, the Company receives it and uses it. However, the Bureau has to give 60 days notice to qualify for payment. As a result, he would like to have these 60-day limits changed. Mr. Shackelford said that this would be reviewed.

The article on capacity factors will be revised to what it was originally, with the exception that an additional column will be added to Table 1A for the Trinity capacity factors as agreed upon and to make provision for the 15 percent variation in average 10-day capacity factors which reflects the intent.

It was agreed to leave Article 12(a), which relates to the limits that the Company will support Firm Load, as it stands, including the two references to 450,000 kw.

It was asked by the Company if the provisions relating to the staging of the Trinity River Division, and resulting intermediate increases in Project Dependable Capacity, could be accomplished by letter agreement instead of adding to this contract. Mr. Head said that he would prefer to have this provision in the contract since reference is made to a table of storage criteria to be met at each stage. It was agreed to add this new provision to the contract.

Article 15, relating to stored energy, had been omitted from the Bureau's proposed contract draft on the basis that it had never been used and that it would be unduly complicated to apply. Mr. Kuder, however, said that it would be well to have it in the event its application became necessary. It was agreed to leave this provision in the contract.

The new provisions for employment will remain. The Bureau stated that the Company has signed other contracts which include these provisions and that there should be no objection to their inclusion in this contract.

Mr. Head stated that they will not re-draft this contract immediately, but will wait for some of the remaining problems to be resolved.

TRINITY TIE TO COTTONWOOD

Some discussion arose regarding provisions for connecting the Trinity transmission lines to the Cottonwood bus. The Bureau contends that, since this is going to occur, the only questions are (1) how soon the Company can provide the facilities and (2) how much will it cost the Bureau. Mr. Perry said that this matter will be considered.

FUTURE MEETINGS

No definite date was set for the next meeting. Mr. Head said that Mr. Pellinen would proceed to make a preliminary redetermination study based on the Trinity capacity factors agreed upon today and losses assuming no Elverta correction. When this study is completed, he will contact Mr. Crabtree for discussion.

CENTRAL VALLEY PROJECT CAPACITY FACTOR

Month	Table 1-B	Table 1-B, less 20 percent	Table 1-A, kilowatt-hours per kilowatt		Used by company for Trinity T-3 studies	Proposed by Bureau for Trinity T-3
			Shasta & Folsom	Keswick & Nimbus		
January.....	160	128	96	138	128	96
February.....	140	112	112	160	112	112
March.....	140	112	112	160	112	112
April.....	140	112	112	160	112	112
May.....	140	112	112	160	113	112
June.....	200	160	160	240	244	160
Total.....	920	736	704	1,018	820	704
6-mo requirements.....	820	820	820	820	820	820
July.....	470	376	320	360	575	320
August.....	550	440	360	400	553	360
September.....	¹ 460	368	280	320	368	280
October.....	290	232	144	200	232	144
November.....	170	136	112	120	136	112
December.....	¹ 120	96	80	96	96	80
Total.....	2,060	1,648	1,296	1,496	1,960	1,296
6-mo requirements.....	1,960	1,960	1,960	1,960	1,960	1,960

¹ Bureau has also proposed the following change in table 1-B: September, 420; December, 160; (2,060). 6-mo requirements, 1,960.

EXHIBIT No. 8

MEMORANDUM

STUDY TO DETERMINE THE USEFULNESS OF THE TRINITY RIVER DIVISION, CENTRAL VALLEY PROJECT IN THE DRY YEAR AREA LOAD, MAY 1962

PURPOSE

The purpose of this study is to determine the following:

1. The capacity factors required to utilize the capacity of the Trinity River Division, Central Valley Project, in the dry year area load.
2. The Trinity capacity that is useful in the dry area load by using the minimum capacity factors from Table 1B less 20%.

The study covers a nine-year period, by months, from 1963 to 1971, inclusive.

GENERAL

The Trinity River Division of the Central Valley Project is scheduled to be in full operation late in 1963. Studies are now being made to determine the Project Dependable Capacity of the Central Valley Project, including the Trinity River Division, under the terms of Contract No. 175r-3428.

A key factor in the determination of Project Dependable Capacity is the minimum capacity factor to be used for the Trinity power plants. The Company has, up to now taken the position that 2.780 kwh per kw, or 31.7 percent, annual capacity factor is the lowest figure which we can accept for each plant. Monthly distribution is based upon reducing the monthly requirements specified in Table 1B by 20 percent. This is the same as used by the Company for its study of Trinity joint development.

The Bureau does not contest the annual requirements. However, they desire to apply lower monthly requirements to the Trinity plants which are equal to that now specified for Shasta and Folsom. In certain months, this would enable them to operate at lower capacity factors than the Company desires.

There have been many indications in recent years that the capacity factors proposed are not appropriate for the 1960-70 period because of the large amounts of low capacity factor hydro coming into the area and the lack of load in which to use it. The result is that if a project is operated to meet some set of capacity factors as specified for Trinity, its capacity must be heavily discounted during the early part of the year in this period until the load has grown sufficiently to absorb it.

Normally, the Company can justify its recommendation of capacity factors, such as proposed for Trinity, on the basis that a long-term contract is being considered, the project is to be sized for ultimate conditions so that the loss of capacity due to discounts, in the initial years is not of large significance. However, when considering the operation of a project such as the Central Valley Project during this critical period, and when the results of such an operation study would cause the Company to support capacity which cannot be integrated into the area load, then this problem of discounted capacity assumes considerable importance.

In general, the results of this study indicate that, if the Trinity Division power plants are operated to meet the capacity factors thus far proposed by the Company, heavy discounts will result in the first half of each year (January-June) from 1963 to 1968. Therefore, higher capacity factors are required in these months in order to make the capacity of these plants useful in the area load. After 1968 to 1970, capacity factors such as those proposed by the Company or the Bureau would be useful in all months of a dry year with the exception of March, April, and May. From 1971 on, the proposals would be useful in all months.

The Bureau has recently submitted to the Company a preliminary study designed to estimate the Project Dependable Capacity of the Central Valley Project including the Trinity River Division. The results of this preliminary study were received too late for inclusion in this study of Trinity capacity factors. The Bureau's study indicates that they expect to obtain at least 900 megawatts of Project Dependable Capacity. The Company study assumes that Trinity will add 400 megawatts to the 450 megawatts now available from the existing Central Valley Project for a total of 850 megawatts.

ASSUMPTIONS

Loads

The annual peak load estimates for this study were based on the four-department estimate for January 1962. This estimate covered the years 1962 through 1967.

Since this study considers the years 1963 through 1971, the annual peak loads for the years 1968 through 1971 were based on the projection of the four-department average year energy estimate (50,600 million kwh in 1967), excluding Pacific Power and Light, Southern California Edison, Ames, and any leap year adjustments. The projection was made at a 7½% compounded annual rate of growth to 1970 and at 7% per year thereafter. Average year peaks are based on an average year load factor of 64.2% (5620 kwh/kw). Dry year peak loads were estimated by adding the four-department allowance to the average year peak year load, this allowance being increased at the rate of 3% per year.

The following are the dry year peak loads as derived for the years indicated, excluding Ames, P. P. & L. and the S. C. E. Company.

Year :	Annual Peak, MW	Year :	Annual Peak, MW
1963 -----	6, 740	1968 -----	9, 760
1964 -----	7, 240	1969 -----	10, 480
1965 -----	7, 790	1970 -----	11, 270
1966 -----	8, 420	1971 -----	12, 050
1967 -----	9, 070		

The monthly distribution of load was derived from the dry year kw-kwh curves developed by the Engineering Department in 1958 and reviewed again in 1961, which amounts to an annual load factor of 65.8% in a dry year.

Resources

The hydroelectric power resources used in this study are those tabulated in the May 1961 list of power resources for the Company and others. Additions or changes to this list, for this study, are summarized as follows :

FUTURE HYDRO RESOURCES AND CHANGE TO EXISTING RESOURCES FOR MAY 1962 STUDY

Plant	August 1931 capacity, MW	Change or operation date
Cherry	127.0	October 1960.
De Sabla shutdown	-5.0	September 1961.
Kings River	42.0	March 1962.
Stanislaus shutdown	-37.5	November 1962.
New De Sabla	18.0	December 1962.
New Stanislaus	80.0	Do.
Trinity (assumed for study purposes)	400.0	January 1963.
Woodleaf	49.0	March 1963.
Forbestown	27.0	Do.
Kelly Ridge	9.0	Do.
Big Bend abandoned	-70.0	January 1965.
McCloud-Pit	152.6	December 1965.
Pit 6	74.0	Do.
Pit 7	101.0	Do.
Belden	113.0	June 1966.

No additional resources, such as those of SMUD's Upper American River Project, the States Oroville Project, or local irrigation district projects were included. This then assumes that Trinity will be given preference over these other projects in meeting the available space in the load. It should be noted however, that future Company projects have been included, thereby giving them preference over Trinity.

Existing Central Valley Project resources were taken from Reclamation Study No. 65-0. This is a departure from the Company's usual practice in making load-resource studies of accepting an estimate prepared by the Bureaus' Operating Department and used in Company reports to the Southwest Area, Federal Power Commission, and to plan future additions of thermal capacity. A comparison of the various resource estimates available is as follows :

CENTRAL VALLEY PROJECT POWER AVAILABLE FOR COMMERCIAL PURPOSES, 1931 TYPE YEAR

	August peak (megawatts)	Annual energy (kilowatt-hours)
1. USBR Operating Department Estimate of:		
(a) Jan. 25, 1960	515	1, 618
(b) Jan. 2, 1962	522	1, 487

For study purposes, it was assumed that the Trinity River Division would have a maximum capability of 400 megawatts during each month of a dry year. Name-plate ratings of the Trinity units total 384 megawatts. However, assumptions regarding power factors may tend to increase this rating, depending upon system reactive requirements.

Trinity capacity factors

The capacity factors proposed for Trinity Division plants are shown in the following table :

Month	Trinity River division capacity factors		
	Table 1-B	Table 1-B less 20 percent (proposed by company)	Table 1-A (proposed by Bureau)
January.....	160	128	96
February.....	140	112	112
March.....	140	112	112
April.....	140	112	112
May.....	140	112	112
June.....	200	160	160
Total.....	920	736	704
6-mo Requirements.....	820	820	820
July.....	470	376	320
August.....	500	440	360
September.....	¹ 460	368	280
October.....	290	232	144
November.....	170	136	112
December.....	¹ 120	96	80
Total.....	2,060	1,648	1,296
6-mo Requirements.....	1,960	1,960	1,960

¹ Bureau has also proposed the following change in table 1-B: September, 420; December, 160 (2,060). 6-mo Requirements, 1,960.

Thermal capacity factor limits and reserves

Thermal requirements were checked with and without Trinity to compare the effect on the thermal capacity factor. The capacity factor limit of the thermal capacity required for load, plus reserves, was set at 85%. If the thermal capacity factor without Trinity was greater than 85%, however, Trinity was not allowed to cause the capacity factor to exceed this higher amount. The result would be to discount Trinity for this purpose as well as for load requirements.

The reserves used in the calculation of thermal capacity factors were as follows:

Reserve requirements

Year:	Total reserves (megawatts)
1963.....	960
1964.....	985
1965.....	1,013
1966.....	1,044
1967.....	1,077
1968.....	1,111
1969.....	1,147
1970.....	1,187
1971.....	1,226

¹ Example follows:

	(Megawatts)
Transmission outage.....	200
Large unit outage.....	330
Governing margin.....	90
5 % of annual peak with/Ames (11,270 plus 60 equals 11,330 megawatts).....	567
Total.....	1,187

METHOD OF ANALYSIS

A computer study without Trinity and computer studies with Trinity at different capacity factors were made to determine and compare area discounts for each month during the period 1963 through 1971.

The base study includes the resources of the Company and other agencies as stated in the study assumptions, including CVP, but without Trinity.

Data relating to Trinity Division Plants at approximately 10 percent, 20 percent, 30 percent, 50 percent, and 70 percent capacity factors were added to the base study and a discount determination was made for each percentage.

The area discounts, in megawatts as tabulated by the computer, were plotted against the capacity factors on 400 MW of Trinity capability, in kwh/kw. These curves were plotted for each month of a dry year that was applicable.

The required results of this study are shown by these curves.

First, the capacity factors necessary to use the full 400 MW capacity of the Trinity Division Plants in the dry year area load.

Second, the Trinity capacity that would be useful in the dry year area load if the minimum capacity factors of Table 1B less 20 percent were used.

RESULTS

The results show that the capability of the Trinity River Division power plants must be discounted by substantial amounts during the early months of a dry year in order to utilize its capacity to meet the area load under the stated assumptions.

The results of this study are shown on Tables A, B, C, and D attached to this report.

Table A shows the minimum useful capacity factors for 400 MW of Trinity Division Plants, in kwh/kw. The absolute minimum capacity factor is assumed to be 10%. This was assumed to be a physical limit because it is equivalent to about 3 or 4 hours per weekday of operation.

Table B shows the same information as Table A but in percent.

Table C shows the minimum useful capacity factors for Trinity if the absolute minimum was based on Table 1B less 20%.

Table D shows the amount of Trinity capacity which would be useful in meeting the dry year area load if the capacity factors of Table 1B less 20% were used.

Under the study assumptions, the Company's thermal capacity factors were not detrimentally affected by the Trinity Division Plants.

CONCLUSIONS

The results of this study indicate that, on a monthly basis, higher capacity factors for the Trinity River Division power plants than those initially proposed are required in the first half of the year. On the other hand, it appears as though the Company could use extremely low capacity factors during the latter half of the dry year. On an annual basis, the results for the early years of the study are not appreciably different than those requested by the Company; that is, 31.7% annual capacity factor. Ideally, then, the problem of determining capacity factors in order to make a block of capability useful is one of appropriate monthly distribution and not one of annual requirements.

From an inspection of typical daily load curves, however, it is doubtful that 400 megawatts could be dispatched at 10 percent capacity factor during the summer months because of the long duration of the daily peak load. Although this analysis, based on monthly load-duration curves, indicates that this is feasible, methods of dispatching hydro power have not developed to a degree where one can predict the exact day, or even week, when the summer peak will occur. This entire study, when analyzed by the methods used by the computer, assumes perfect dispatch of hydro generation, without waste of water or time. It is doubtful that this state of perfection will be attained in the period covered by this study.

This study also assumes that, as the load grows, the capability assumed for Trinity can be moved higher and higher on the peak of the load to the point where it would become infeasible to dispatch. It is believed that this general assumption is warranted. As years progress, it appears reasonable that all hydro in the system could be redesigned for lower capacity factors in order to keep the peak of the load filled.

RECOMMENDATIONS

The table below shows a proposed recommendation for minimum capacity factors for the power plants of the Trinity River Division. This was derived, as shown on Table E attached, by averaging the monthly capacity factors, as developed by this study, for the years 1963 to 1967, inclusive. The absolute minimum capacity factor for any month was limited to Table 1A capacity factors now specified for Shasta and Folsom in Contract No. 175r-3428.

Central Valley Project, Trinity River Division, Recommended Minimum Capacity Factors, 1963-1967

Month :	Kwh/Kw	Month :	Kwh/Kw
January -----	380	July -----	320
February -----	380	August -----	360
March -----	440	September -----	280
April -----	450	October -----	150
May -----	450	November -----	140
June -----	170	December -----	80

Six month requirements - 2270

Six month requirements - 1960

Annual requirement (48.3 percent) 4,230 kwh/kw.

Some justification can be said for limiting the absolute minimum capacity factor in any one month to Table 1A, since these were originally derived by means of daily load curves and possibly would reflect the dispatching limitations discussed above.

It is proposed that these average capacity factors be used for the new reclamation study covering the period 1963-67. For future studies, new averages would be developed which correspond to the new periods of study (1964-68, 1965-69, etc.) and which reflect revised estimates of leads, resources, and other criteria. Gradually, this average will approach, and in the reclamation study covering the period 1971-75 would equal, Table 1A which the Bureau desires. If the area load grows more rapidly than anticipated in this study, Table 1A could perhaps be applied earlier.

TABLE A.—MINIMUM USEFUL CAPACITY FACTORS FOR 400 MEGAWATTS OF TRINITY POWER
[In kilowatt-hours per kilowatt]

Month	1963	1964	1965	1966	1967	1968	1969	1970	1971
January.....	463	451	333	364	283	154	74	74	74
February.....	445	483	353	378	297	167	67	76	67
March.....	473	443	407	455	402	267	169	74	74
April.....	488	464	432	452	437	336	237	144	72
May.....	482	462	415	455	444	333	233	144	74
June.....	204	110	72	106	72	72	72	72	72
Subtotal, January to June.....	2,555	2,363	2,012	2,210	1,935	1,329	852	575	433
July.....	74	74	74	74	74	74	74	74	74
August.....	74	74	74	74	74	74	74	74	74
September.....	72	72	72	72	72	72	72	72	72
October.....	177	74	74	74	74	74	74	74	74
November.....	228	101	72	72	72	72	72	72	72
December.....	74	74	74	74	74	74	74	74	74
Subtotal, July to December.....	693	469	440	440	440	440	440	440	440
Total.....	3,254	2,832	2,452	2,650	2,375	1,769	1,292	1,015	873

TABLE B.—MINIMUM USEFUL CAPACITY FACTORS FOR 400 MEGAWATTS OF TRINITY POWER
[In percent]

Month	1963	1964	1965	1966	1967	1968	1969	1970	1971
January.....	62	61	45	49	38	21	10	10	10
February.....	66	64	52	56	44	25	10	10	10
March.....	64	59	55	61	54	36	23	10	10
April.....	68	64	60	63	61	47	32	20	10
May.....	65	62	56	61	60	45	31	19	10
June.....	28	15	10	15	10	10	10	10	10
Subtotal, January to June.....	59	54	46	51	45	31	20	13	10
July.....	10	10	10	10	10	10	10	10	10
August.....	10	10	10	10	10	10	10	10	10
September.....	10	10	10	10	10	10	10	10	10
October.....	24	10	10	10	10	10	10	10	10
November.....	32	14	10	10	10	10	10	10	10
December.....	10	10	10	10	10	10	10	10	10
Subtotal, July to December.....	16	11	10	10	10	10	10	10	10
Total.....	37	32	28	30	27	20	15	12	10

TABLE C.—MINIMUM USEFUL CAPACITY FACTORS FOR 400 MW OF TRINITY POWER BASED ON MINIMUM CAPACITY FACTORS OF TABLE 1-B LESS 20 PERCENT

[In kilowatt-hours per kilowatt]										
Month	1963	1964	1965	1966	1967	1968	1969	1970	1971	
January.....	463	451	333	364	283	154	128	128	128	
February.....	445	433	353	378	297	167	112	112	112	
March.....	473	443	407	455	402	267	169	112	112	
April.....	488	464	432	452	437	336	237	144	112	
May.....	482	462	415	455	444	333	233	144	112	
June.....	204	160	160	160	160	160	160	160	160	
Subtotal, January to June.....	2,555	2,413	2,100	2,264	2,023	1,417	1,039	800	736	
July.....	376	376	376	376	376	376	376	376	376	
August.....	440	440	440	440	440	440	440	440	440	
September.....	368	368	368	368	368	368	368	368	368	
October.....	232	232	232	232	232	232	232	232	232	
November.....	228	136	136	136	136	136	136	136	136	
December.....	96	96	96	96	96	96	96	96	96	
Subtotal, July to December.....	1,740	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	
Total.....	4,295	4,061	3,748	3,912	3,671	3,065	2,687	2,448	2,384	

TABLE D.—TRINITY CAPACITY USEFUL IN MEETING AREA LOAD USING C.F. OF TABLE 1-B LESS 20 PERCENT

[Megawatts]										
Month	C.F. Kwh/Kw	1963	1964	1965	1966	1967	1968	1969	1970	1971
January.....	128	114	121	214	194	262	377	400	400	400
February.....	112	107	108	173	155	224	345	400	400	400
March.....	112	109	121	123	113	147	242	337	400	400
April.....	112	100	108	110	108	108	185	275	367	400
May.....	112	100	104	130	102	107	193	278	367	400
June.....	160	360	400	400	400	400	400	400	400	400
July.....	376	400	400	400	400	400	400	400	400	400
August.....	440	400	400	400	400	400	400	400	400	400
September.....	368	400	400	400	400	400	400	400	400	400
October.....	232	400	400	400	400	400	400	400	400	400
November.....	136	320	400	400	400	400	400	400	400	400
December.....	96	400	400	400	400	400	400	400	400	400

TABLE E.—PROPOSED RECOMMENDATION FOR MINIMUM CAPACITY FACTORS TRINITY RIVER DIVISION, CENTRAL VALLEY PROJECT, STUDY PERIOD 1963-67

[In kilowatt-hours per kilowatt]										
Month		1963	1964	1965	1966	1967	Total	Average		
January.....		460	450	330	360	280	1,880	380	0	
February.....		450	430	350	380	300	1,910	380		
March.....		470	440	410	460	400	2,180	440		
April.....		490	460	430	450	440	2,270	450		
May.....		480	460	420	460	450	2,270	450		
June.....		200	160	160	160	160	840	170		
Subtotal, January to June.....		2,550	2,400	2,100	2,270	2,030	11,350	2,270		
6-mo. requirements.....		2,550	2,400	2,200	2,270	2,030	11,350	2,270		
July.....		320	320	320	320	320	1,600	320		
August.....		360	360	360	360	360	1,800	360		
September.....		280	280	280	280	280	1,400	280		
October.....		180	144	144	144	144	756	150		
November.....		230	112	112	112	112	678	140		
December.....		80	80	80	80	80	400	80		
Subtotal, January to December.....		1,450	1,296	1,296	1,296	1,296	6,634	1,330		
6-mo. requirements.....		1,960	1,960	1,960	1,960	1,960	9,800	1,960		
Annual total.....		4,000	3,696	3,396	3,566	3,326	17,984	3,600		
Annual requirements.....		4,510	4,360	4,060	4,230	3,990	21,150	4,230		

Mr. SIMS. I have nothing further.

Mr. MOSS. Mr. Greene?

Mr. GREENE. Mr. Ogden, did you have the opportunity to listen to this morning's cross examination of Mr. Frizzell?

Mr. OGDEN. I was here throughout the proceeding.

Mr. GREENE. Yesterday I understand Mr. Rose, of your Department, indicated that there is no policymaker left at DOE or the Department of the Interior who would be willing to stand behind the so-called Frizzell decision. Would that be your assessment as well?

Mr. OGDEN. I am not certain I can say that with absolute assurance. Let me say that the people I am working with at the present time would not support this. I am not sure there is no one in the Department who would.

Mr. GREENE. You might find one or two?

Mr. MOSS. He speaks of his knowledge.

Mr. GREENE. With that in mind, it is my understanding that in the so-called pinch-point year, 1981, we have a situation in which there is another window opening up with respect to the Centralia contract, that window opening on April 1.

As a consequence, a rate could be established from April to December of 1981 which could reflect the actual costs of Centralia power to P.G. & E. and as a consequence would change the revenue flow coming from P.G. & E. to the project, which would presumably decrease the necessity for a rate increase to the preference customers. Is that a correct understanding?

Mr. OGDEN. That is technical.

Mr. ESTES. That is correct.

Mr. GREENE. In light of the obvious problems with the Frizzell decision, is it not appropriate for the Department now to modify assumptions with respect to that pinch-point year to presume that at least to some degree you will be tougher and that we will get a cost-of-service rate from P.G. & E.?

Mr. OGDEN. I think we do and we will.

Mr. ESTES. This subject came up yesterday in hearings. We certainly intend to take a good look at it and see whether we can establish a proper rate at that time.

Mr. GREENE. My interest is in the assumptions you make with respect to the current rate. That is where it really counts.

Are you presently intending to review this matter and incorporate it to the extent you can tied into assessments of the revenue needs of the project in the pinch-point year 1981?

Mr. ESTES. We intend to review it.

Mr. GREENE. On a related matter, Mr. Kaplan and I earlier had a short conversation about the problem of the current below-cost rate and the fact that to some degree the value of that to P.G. & E. will be recaptured by customers in later years. As a consequence we have a decision where payments are made now to cover those costs and they are not really operation and maintenance costs but more analogous to capital costs because you will get value at some point in time later.

First, do you agree with that assessment of what these costs look like, in fact they relate to values recovered in later years?

Mr. ESTES. Generally I do.

Mr. GREENE. As a consequence, then, would it be fair to modify the no-deficit-year policy through modification of its applicability or assume that the costs incurred in 1981 for that year should be reduced by the values which will be recaptured in later years?

Mr. ESTES. This is certainly a philosophy that could be employed. Right now our departmental manual which we follow in establishing rates does not permit that. 730-DM4 is the criteria I refer to.

Mr. GREENE. One more question with respect to the Frizzell decision. Mr. Kaplan has indicated that SMUD may sue on the matter of the Frizzell decision to seek mandamus for the government to go forward and recapture this loss. It was also indicated by Mr. Davidson that similar action might be taken by Northern California Power Agency.

In light of your statement that you yourself and perhaps most people at DOE do not support the Frizzell decision, what would be the Department's likely response to such a suit?

Mr. OGDEN. I am too new to give a definitive answer. I am sure we will pursue steps, if my position is sustained, to overturn the Frizzell decision. I have no way to assure that.

Mr. GREENE. To the extent you are involved in the decision you would make effort to overturn the so-called Frizzell decision?

Mr. OGDEN. I certainly will as far as I am concerned.

Mr. GREENE. Let's turn briefly to the no-deficit-year policy. As I understand it, that is reflected in basically two documents. One is 730-DM4, which is a manual, as I understand it, and the so-called Pelz opinion with respect to the legality of the deficit policy.

Could you state for me what the current status of 730-DM4 is? My understanding is that that is a Department of Interior document, so as a consequence it is on its fact not a Department of Energy document.

Mr. ESTES. That is correct. The new Department of Energy just being formed 6 months ago does not have a departmental procedure or guideline to follow. Therefore, we have been following the Interior Department manual.

Mr. GREENE. So—

Mr. OGDEN. That is part of the review process we are under now. This will be one of the things we will examine to be sure we are not boxed in on this kind of problem. That is one of the sections now under review.

Mr. GREENE. You will be taking into account in that review the matters I raised with Mr. Kaplan concerning the various administrative opinions and actions with respect to that policy, legislative history, various reports, and other things of that nature?

Mr. OGDEN. Yes.

Mr. GREENE. Will you be able to report with respect to the Department's progress on this matter?

Mr. OGDEN. We will be happy to.

Mr. GREENE. I have nothing further at this time.

Mr. MOSS. Gentlemen, there are no further questions at this time. I am sorry we had to keep you as long as we did. It is necessary to conclude the work here in Sacramento on this single day.

Thank you, and the committee will now stand adjourned.

[Whereupon, at 3:47 p.m., the subcommittee adjourned.]

