BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

PETITION OF PUGET SOUND POWER & LIGHT COMPANY FOR AN ORDER REGARDING THE ACCOUNTING TREATMENT OF RESIDENTIAL EXCHANGE BENEFITS	GENERAL RATE FILING DOCKET NO. UE-920433
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, Complainant, vs. PUGET SOUND POWER & LIGHT COMPANY, Respondent.	DOCKET NO. UE-920499
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, Complainant, vs. PUGET SOUND POWER & LIGHT COMPANY, Respondent.	DOCKET NO. UE-921262 VOLUME XVIII PAGES 3053 - 3200

A hearing in the above matter was held on June 9, 1993 at 10:30 a.m., at 1300 South Evergreen Park Drive Southwest, Olympia, Washington, before Chairman SHARON L. NELSON, Commissioners RICHARD CASAD and RICHARD HEMSTAD, and Administrative Law Judge ALICE HAENLE.

Cheryl Macdonald, RPR, CSR, Court Reporter

The parties were present as follows:

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION STAFF, by DONALD T. TROTTER and SALLY G. BROWN, Assistant Attorneys General, 1300 South Evergreen Park Drive Southwest, Olympia, Washington 98504.

FEDERAL EXECUTIVE AGENCIES, by NORMAN FURUTA, Associate Counselor, 900 Commodore Drive, Bldg. 107, (Code 09C), San Bruno, California 94066-2402.

NORTHWEST CONSERVATION ACT COALITION, by JON WELLINGHOFF, Attorney at Law, 710 South Fourth Street, Las Vegas, Nevada 89101-6750.

PUGET SOUND POWER & LIGHT, by JAMES VAN NOSTRAND and STEVEN C. MARSHALL, Attorneys at Law, 411 - 108th Avenue NE, Bellevue, Washington 98004.

WASHINGTON INDUSTRIAL COMMITTEE FOR FAIR UTILITY RATES, by MARK P. TRINCHERO, 2300 First Interstate Tower, 1300 Southwest Fifth Avenue, Portland, Oregon 97201, and PETER RICHARDSON, Attorney at Law, 702 West Idaho, Boise, Idaho 83702.

WASHINGTON WATER POWER, by DAVID MEYER, Attorney at Law, 1200 Washington Trust Bldg., 717 W. Sprague, Spokane, Washington 99204.

PUBLIC INTEREST, by CHARLES F. ADAMS, Attorney at Law, Suite 2000, 900 Fourth Avenue, Seattle, Washington 98164.

PACIFIC CORP., by JAMES PAINE, Attorney at Law, 900 SW Fifth Avenue, Portland, Oregon 97204-1266

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PROCEEDINGS

JUDGE HAENLE: Let's be on the record. The hearing will come to order. This is an 18th day of hearing in the consolidated Puget cases. We're continuing with examination in the general rate phase of the case of intervenor and public counsel expert witnesses. This is June 9, 1993 and the hearing is taking place before the Commissioners. We intend today to take Mr. Schoenbeck, Mr. Norwood and Ms. Lozovoy, I believe. If you want to give your appearance, just your name and your client's name beginning with the company.

MR. MARSHALL: Steve Marshall and Jamie Van Nostrand.

JUDGE HAENLE: For the staff.

MR. TROTTER: Donald T. Trotter and Sally G. Brown.

MR. PAINE: James Paine for Pacific Corp.

MR. MEYER: David Meyer, Washington Water Power Company.

MR. TRINCHERO: Mark Trinchero for WICFUR.

JUDGE HAENLE: As I understand, you indicated that Mr. Adams called and said he was going to be about half an hour late?

MR. TROTTER: Yes.

JUDGE HAENLE: Anything of a procedural nature we need to talk about before we take Mr. Schoenbeck's testimony?

Hearing nothing then, would you raise your right hand, sir.

Whereupon,

DONALD SCHOENBECK,

having been first duly sworn, was called as a witness herein and was examined and testified as follows:

JUDGE HAENLE: I have marked for identification as Exhibit No. T-798 multi-page document. In the upper right-hand corner it says DWS-1.

(Marked Exhibit T-798.)

DIRECT EXAMINATION

BY MR. TRINCHERO:

Q. Good morning, Mr. Schoenbeck.

A. Good morning.

Q. For the record, could you please state your name and business address and spell your last name.

A. My name is Donald W. Schoenbeck, S C H O E N B E C K. My business address is 825 Northeast Multnomah, M U L T N O M A H, and that is in

Portland, Oregon.

Q. Thank you. Do you have in front of you a copy of what has been marked as Exhibit T-798?

A. Yes, I do.

Q. And was this prepared by you or under your supervision?

A. Yes, it was.

Q. To the extent that there are factual matters in this testimony, are they true and correct to the best of your knowledge?

A. Yes, they are.

Q. To the extent that judgment plays a role, is it your best judgment?

A. Yes, it is.

Q. Do you have any corrections to make at this time?

A. No, I do not.

MR. TRINCHERO: Your Honor, I would move the introduction of Exhibit T-798 and tender Mr. Schoenbeck for cross-examination.

JUDGE HAENLE: Any objection, Mr. Van Nostrand?

MR. VAN NOSTRAND: No, your Honor.

MR. TROTTER: No objection.

JUDGE HAENLE: Objection from any

intervenor?

MR. PAINE: None.

JUDGE HAENLE: T-798 will be entered into the record.

(Admitted Exhibit T-798.)

CROSS-EXAMINATION

BY MR. VAN NOSTRAND:

Q. Morning, Mr. Schoenbeck.

A. Morning.

Q. You are testifying generally about power supply issues; is that correct?

A. The issues related to revenue requirement are generally addressing power supply issues. In addition there is a section in the testimony that addresses the decoupling process or phase of the proceeding as well.

Q. And among other things your testimony proposes to exclude the Stone Creek and Black Creek hydro projects?

A. Yes, it does.

Q. And to exclude a proposed capacity purchase from power costs?

A. That is correct.

Q. And to reject the company's proposed hydro

realization adjustment?

A. Yes.

Q. And to use more than 50 historical water years in setting power costs?

A. Yes, those are all the issues related to power supply.

Q. Then you also comment on the PRAM and resource recovery mechanisms?

A. Yes, that's what I referred to earlier as the decoupling portion.

Q. Turn first to the Stone Creek and Black Creek adjustments beginning on page 4. Your testimony notes that the company at the time it filed its case was proposing to sell Stone Creek. Have you followed up to determine whether or not that sale will go through?

A. Well, what I've kept track of is the bond issue that was offered by EWEB and I noted an article from the Eugene paper. It's dated May 19 where the voters had approved that bond issue.

Q. With respect to Black Creek, your testimony is that this resource should have been acquired through competitive bidding; is that right?

A. Yes. I believe that any utility-owned resource should undergo the same process that a

nonutility or a third party supplier does. So in other words, I do believe all company-owned resources should be evaluated in the process of an RFP.

Q. Is it your testimony that Puget is required to acquire all of its resources through competitive bidding?

A. It's my testimony that they should be required to submit their resources as part of an RFP.

Q. But the rule itself does not require it, does it?

A. I'm unclear with respect to if there is a specific requirement for Puget to submit all of their resources in an RFP process.

Q. Are you familiar with the Commission's competitive bidding regulations as set forth in chapter 480-107 of the administrative code?

A. Only in general terms.

Q. Would you accept subject to check that WAC 480-107-001 (1) states that "These rules do not preclude electric utilities from constructing electric resources, operating conservation programs, purchasing power through negotiated purchase contracts, or otherwise taking action to satisfy their public service obligations." Would you accept that subject to check?

A. Most certainly I would.

Q. Would you agree that that provision allows Puget to acquire resources through other than competitive bidding?

A. Yes, but of course what is at issue here is what resources or specifically what cost of the resources should be included in the rates.

Q. In your view, does the competitive bidding process assure that resources will be cost effective when they are acquired?

A. Assurance is a very strong word. I believe that by going through a competitive bid process that the resources are meeting at least the one criteria of being the most cost effective resource. Now, there are some other matters that could be used in the evaluation of acquiring resource besides just the bottom line price, but certainly by having gone through a competitive bid process I think there is -- there should general recognition that it is the most cost effective resource.

Q. Did you understand from Puget's proposal that it was seeking to obtain a market price for its two hydro projects, Black Creek and Stone Creek or was it attempting merely to recover its costs in rates?

A. I was under the assumption it was

attempting to recover what it was alleging their cost

of the resources to be.

Q. Assuming the Commission accepts your recommendation and the Black Creek project, in fact, comes on-line in November 1993, when will the company recover the costs associated with that project?

A. Under my recommendations the first opportunity would be at the next PRAM filing to the extent the PRAMs would be in existence or the subsequent general rate case.

Q. And in your view the company would be allowed to recover the costs of a company-developed resource through the PRAM mechanism?

A. Again, what my testimony states is there would be a deferral of the costs of the resource when it comes on-line versus the short term purchased power costs, what's similar to the method that is now being used on the qualified facilities. That same type of procedure would be used, and upon a showing that it was a prudent investment in either the PRAM proceeding or the general rate case, then, yes, the company would be allowed to recover the costs.

Q. But as far as the capital cost component of the resource they would have to wait until the next general rate case in order to include that in rates?

A. No. I am saying -- what my testimony is stating with respect to the resource tracking mechanism is that it would track the total cost of the resource including capital and O and M.

MR. VAN NOSTRAND: Your Honor, I would like to distribute an exhibit.

JUDGE HAENLE: You handed me a multi-page document entitled WICFUR response to Puget's data request 4302. I will mark this as 799 for identification. I'm sorry, one-page document.

(Marked Exhibit 799.)

Q. Mr. Schoenbeck, do you recognize what's been marked for identification as Exhibit 799 as your response to the company's data request 4302?

A. Yes.

Q. And it concerns recovery of new resources through the PRAM or through general rate cases basically?

A. That is correct, a company-billed resource.

MR. VAN NOSTRAND: Move the admission of Exhibit 799.

JUDGE HAENLE: Any objection?

MR. TRINCHERO: No, your Honor.

MR. TROTTER: No objection.

JUDGE HAENLE: Objection from any other

intervenor?

MR. PAINE: None.

JUDGE HAENLE: Exhibit 799 will be entered into the record.

(Admitted Exhibit 799.)

Q. If you could turn to your testimony on the capacity purchase, beginning on page 6. Your testimony recommends that Puget not be allowed to recover the costs associated with the 358 megawatt capacity purchase that is identified in its testimony; is that right?

A. Yes.

Q. And one of the reasons you give is that you question the need for this magnitude of increased capacity by the company. Is that a fair statement?

A. Yes. That's one of the three reasons I give for why this contract should not be included.

Q. In your view, should the company have plans in place to cover its needs at the peak?

A. Certainly, the company should plan to serve its expected peak load. One of the questions that has to be answered, though, or an assumption within your question is what factor do you use to determine what the expected peak load of the utility will be. Obviously, there are whole host of different standards

that could be used on -- reliability standards that

could be used to determine what that amount would be.

Q. And when you prepared your testimony on this point, was it based on your review of Mr. Lauckhart's load resource table included as Exhibit 528 in this proceeding?

A. Certainly I had reviewed that particular exhibit, but the main reason for the insertion of this portion of testimony, why we felt it was necessary to address this issue and in the case was actually the review of another witness' rebuttal testimony.

Q. When you made your recommendation that disallowed the capacity purchase, I take it you did not agree with the loads and resources identified on Mr. Lauckhart's Exhibit 528?

A. No. Again, at the time I reviewed Mr. Lauckhart's testimony and exhibit, I had no reason to either agree or disagree with the number. Again, we believe this testimony should be rejected for several reasons. Obviously, the main reason of the three I stated was that it is a phantom contract. That is, there is no signed contract for this Commission to review to determine the reasonableness of this cost. In addition, again, I was referencing the testimony of Ms. Colleen Lynch in the rebuttal

phase of the case when she felt any sort of an adjustment above the 3900 megawatts that had actually been hit during the test period was not appropriate.

Q. And this has to do with your testimony regarding what you called a normalized peak load level. Is that what your testimony relates to?

A. Yes. Basically, during the test period the actual peak that was experienced by Puget was less than 3900 megawatts and yet here in the revenue requirement phase of the proceeding Puget is proposing the inclusion of a phantom contract of 358 megawatts to serve a peak that's somewhere approximately 5100 megawatts.

Q. Do you know how the 5100 megawatt peak was calculated?

A. Well, my impression from looking at the data responses in this case was that it was based on an actual peak from two years ago and it was basically trended based on your sales growth.

Q. It was trended based on the actual sales growth in the years since 1991, is that a fair statement?

A. That's what it appears to be.

Q. And you're taking issue with the fact that you believe the load resource analysis should be based

on the actual test period peak rather than what the company expects its system peak could be?

A. Well, if there has been no compensating normalization adjustment. Obviously, there's a cost versus revenue issue here. If the revenue requirement of the utility is based on a peak of 5100 megawatts but they've allocated costs and determined revenues from -- class revenues based on 3900 megawatts there's obviously a mismatch where there's an overstatement of expenses. An alternative is if you're going to set a peak and, therefore, the associated costs of 5100 megawatts, then you should normalize the projected revenues from the class to show revenues based on a 5100 megawatt peak.

MR. VAN NOSTRAND: Like to distribute another exhibit, your Honor.

JUDGE HAENLE: The document is entitled WICFUR response to Puget data request 4304. Mark this as Exhibit 800 for identification.

(Marked Exhibit 800.)

Q. Mr. Schoenbeck, do you recognize what's been marked for identification as Exhibit 800 as your response to the company's data request 4304?

A. Yes.

Q. And it discusses the matters you've just

raised regarding the use of a normalized peak load

level?

A. Yes.

MR. VAN NOSTRAND: Move the admission of Exhibit 800.

JUDGE HAENLE: Any objection?

MR. TRINCHERO: No, your Honor.

JUDGE HAENLE: Any objection, Mr. Trotter?

MR. TROTTER: No.

MR. PAINE: No objection.

JUDGE HAENLE: 800 will be entered.

(Admitted Exhibit 800.)

Q. In terms of a system peak for planning purposes, do you have any basis for not accepting the 5100 figure shown on Mr. Lauckhart's Exhibit 528?

A. Well, that goes earlier to what I was referring to. There are a whole host of methods in which a peak demand in the reliability criteria could be used. Obviously, what Puget's done is a relatively crude method that took an actual historical peak during a cold snap in today's simple trend line analysis, that is one approach. There may be other approaches such as using a criteria that's based on a 95 percent expected demand, what may be equivalent to a 1-in-50-year temperature condition. My impression

is Puget's criteria is really fundamentally based on the highest peak demand ever experienced. So there are several ways of doing this analysis, again, but the main thrust isn't so much objecting to the absolute value but objecting to the mismatch between using that particular value in relying on it to increase the costs included in the filing but not offsetting it by enhanced revenues and other factors.

Q. Isn't your testimony regarding normalized peak load level relate more to how the costs are assigned among the various rate classes based on their relative responsibilities at a normalized peak versus actual peak?

A. That's certainly what my testimony addressed in the cost of service phase of this proceeding, absolutely. Because that's the other logical step is that it then tends to overallocate costs to various classes of customers as well.

Q. As far as the resource portion that's Mr. Lauckhart's Exhibit 528, do you have any basis for challenging any of the outputs shown for the various resources?

A. My entire focus -- ask a clarifying question. When you referred to that number are you talking in terms of JRL-12?

Q. JRL-8, the load resource forecast.

A. Excuse me, it was revised on February 23. No. Actually the focus had just been on comparing what I will reference as JRL-8 versus JRL-12 which determines the normalized power cost. And in so doing, I focused on the phantom capacity contract, not the capabilities of all the other numerous resources indicated here.

Q. Is the primary basis for your recommendation on the capacity contract the fact that a signed contract doesn't currently exist?

A. Yes. That is certainly one of my three reasons and I did state it as the first one.

Q. Would it be reasonable given that the deficiency indicated on Exhibit 528 for the company to actually secure such capacity arrangements?

A. Could you restate the question.

Q. Would it be reasonable given the deficiences shown on Exhibit 528 for the company to go out and actually secure these capacity arrangements?

A. Certainly, given the company's method of determining the capacity deficit in this case. It would be a prudent action by Puget to go out and acquire resource if it believed the demand would be of this magnitude, but it's not just a question again

of the magnitude of the surplus or deficit, but it's also a question of what could be the price of serving or the method of serving that given amount of power.

Q. And if the company secured it at the price that it included in its original filing of $3.00 per kilowatt month. Would that be a reasonable price in your view?

A. I am not certain about that. Have to look at the other alternatives that were available to Puget at the time that contract was entered into. That goes hand in hand with what I was stating earlier about a reasonableness review or prudency review of a signed contract.

Q. We can move to your discussion of the hydro realization adjustment which begins at the very bottom of page 7. And this issue has to do with the company's proposal as presented in Mr. Lauckhart's testimony to adjust the hydro generation assumed from the mid Columbia projects by 4 percent; is that right?

A. I think it's closer to 6 percent, as I recall.

Q. Well, would you accept subject to check, and we'll get into it later, that the analysis produced in adjustment of 6.1 percent but that Mr. Lauckhart only proposed 4 percent in this

proceeding?

A. That's subject to check, certainly.

Q. Would you agree that the purpose of this adjustment is to remove the amount of -- reduce the amount of power which is assumed to be generated at the mid Columbia hydro projects?

A. Well, I think the purpose of the adjustment is Puget's belief that the coordinated system studies overstate the amount of power from those projects.

Q. And the company performed a study comparing the actual output of the projects to the output which the Northwest regional forecast regulation model predicts will be generated by the projects. Is that a fair statement?

A. Yes, over a limited period of time and flow conditions.

Q. And that limited period of time was a 47-month period?

A. That is correct.

Q. And it was the flow conditions which existed during that 47-month period?

A. Yes.

MR. VAN NOSTRAND: Like to distribute another exhibit, your Honor.

JUDGE HAENLE: This is a one-page document

entitled Weighted Percentage Reduction for Puget Power, 6.1 percent. I will mark this as 801 for identification.

(Marked Exhibit 801.)

Q. Mr. Schoenbeck, do you recognize what's been marked for identification as Exhibit 801 as an excerpt from the Puget hydro realization study?

A. Yes, it is. It's one of the summary pages.

Q. And it's page 3 of the hydro realization study?

A. Accept that subject to check.

Q. And as you indicated it's the summary page which attempts to capture the findings of Puget's study comparing the actual outputs to the model predicted outputs, is that fair to say?

A. I would change it a little bit. I think what it's showing is the percentage adjustments. It's not so much the output. The significant output column is entitled the 50-year average generation of megawatts where you see under the Wells project 465 and to the column immediately to the left of that that's the Puget proposed adjustment to that figure.

Q. Right.

MR. VAN NOSTRAND: Your Honor, move the admission of Exhibit 801.

JUDGE HAENLE: Any objection?

MR. TRINCHERO: No objection.

MR. TROTTER: No objection.

MR. MEYER: No objection.

JUDGE HAENLE: Exhibit 801 then will be entered into the record.

(Admitted Exhibit 801.)

Q. Mr. Schoenbeck, you would agree that this summary would indicate that the weighted reduction for Puget produced by the study is about 52 megawatts?

A. Yes, I would.

Q. And as compared to the 852 megawatts of Puget's share of the mid Columbia projects the weighted percentage reduction would be 6.1 percent?

A. Yes.

Q. And notwithstanding the 6.1 percent study results, it's true, isn't it, that Mr. Lauckhart's adjustments assumes only a 4 percent reduction?

A. Accept that subject to check.

Q. And if we look at only the Rock Island project, the 34.91 megawatt figure, doesn't that reduction by itself when compared to the 852 megawatt Puget total amount to about a 4 percent reduction?

A. Yes, that's mathematically correct.

Q. The 47-month study performed by Puget which

developed the mathematical relationship between flow and power output, that included both high and low flow months, didn't it?

A. Certainly, the flows varied over that period of time, the 47-month period of time. The thrust of my testimony, though, again, is the determination of the expected output from these projects is done by the owners of the projects, in this case the mid Columbia Public Utility Districts, and of course the thrust of my testimony is that until the output for planning purposes in the Northwest is changed, this adjustment should not be adopted by the Commission.

Q. Are these public utility districts computed requirement customers of Bonneville?

A. As opposed to full requirements customers?

Q. Yes.

A. There are various types of computer requirement customers, but yes.

Q. And the ones we're referring to are Douglas PUD for the Wells project, Chelan PUD for the Rocky Reach and Rock Island project and Grant PUD for the Wanapum and Priest Rapids project?

A. Appears to be correct.

Q. Would you agree that their status as

computer requirements customers of Bonneville may give them some reason for not requesting that this change be made?

A. No, not necessarily. I believe through the PNUCC planning process in the resource committee they publish a regional forecast. Comes out March of every year, and I think in so doing they are attempting to determine given the most current information on system operation conditions, the most current information on endangered species activities what the projected output will be from the region's projects. The table in the most recent PNUCC load resource study, which was subsequent to Puget's study, is dated March 1993. In that study in all cases the 50-year output is higher than the value Puget has presented in Exhibit 800, the column I was referring to earlier. I believe this most current regional agreed to information should be used for determining the output of these projects.

Q. What would be the effect on the amount of power which Chelan PUD, Douglas PUD and Wells PUD would be -- I'm sorry -- Douglas, Chelan and Grant -- on the power that they would purchase from Bonneville in the event they made the sort of adjustment that Puget is proposing to the hydro realization?

A. If they had declared a lower capability

from that that they believe to be contracted through the contract exhibits through their annual notification, that would effectively allow them to purchase a greater amount from Bonneville.

Q. And given the economics of the output from the hydro projects versus purchases from Bonneville, wouldn't they prefer not to buy more from Bonneville?

MR. TRINCHERO: Objection, your Honor. I believe that calls for speculation.

JUDGE HAENLE: Mr. Van Nostrand?

MR. VAN NOSTRAND: I think Mr. Schoenbeck knows quite a bit about the relative cost of power from hydro projects versus purchases from Bonneville. I believe it's a fair question, your Honor.

JUDGE HAENLE: Mr. Trinchero?

MR. TRINCHERO: I believe it still requires Mr. Schoenbeck to speculate about the motivations underlying the PUD's purchases. Perhaps if the question was rephrased to simply look for Mr. Schoenbeck's knowledge about power costs that would be different. However, Mr. Schoenbeck should not be required to speculate as to the motivations of these PUD's.

JUDGE HAENLE: I am going to overrule the

objection and direct the witness to answer.

A. Well, certainly the hydro generated from these projects would be of such a cost that it would be economic to displace any purchase from Bonneville.

Q. Are you aware if any of the mid Columbia PUD's intend to ask that the type of change proposed by Puget here -- if they intend to ask for that change to be made?

A. What change are you referring to?

Q. The adjustment of the power flow factors used in the regional models?

A. I am certainly aware of at least in the case of Grant, there is some construction going on at their projects, that is the installation of some fish screenings which would temporarily cause their power to be lower as they go through and start that construction process, but other than that, I am not aware of any of the other utilities.

Q. If we could turn to your testimony on the number of water years beginning at the bottom of page 9. On this issue your testimony essentially objects to the use of 50 water years for projecting normalized power costs; is that right?

A. Yes, that's correct.

Q. And it's your testimony that the largest

number of years will provide the best forecast?

A. Yes, of the expected water conditions.

Q. And your specific recommendation is to use extended databases in excess of 100 years; is that right?

A. Yes. I believe the ones I am familiar with are around 110, 111 years.

Q. As opposed to the 50 years relied on by Puget which is the 1929 through 1978 period; is that right?

A. Yes, that's correct.

Q. So the additional years you would add would be prior to 1929; is that right?

A. They would be both prior to 1929 and after 1978, that's correct. They would be on either side of that period.

Q. As far as the databases for the years earlier than 1929, have you reviewed any of the studies which discuss the accuracy of the data for water years prior to 1929?

A. What I've reviewed were the statistical mapping studies that had been performed by the Bonneville Power Administration to determine how to map either the 40-year period under the 100. I am not familiar with a specific study that addressed the

accuracy of the years prior to that period.

Q. In particular would you have reviewed a study performed by Parker and Lee in the U.S. Geological Survey Water Study Paper 492 which discusses reliability of data for the years prior to 1929?

A. I'm not certain just from that title. Have to look.

Q. Do you know how the water flows were measured at the Dalles for the years prior to 1929?

A. I think it was just the physical observation.

Q. Have you done any studies regarding a correlation between water flows measured at the Dalles and the company's hydro generation capability for its mid Columbia projects?

A. No, I have not done any independent analysis.

MR. VAN NOSTRAND: Like to distribute another exhibit, your Honor.

JUDGE HAENLE: You've given me a one-page document entitled WICFUR response to Puget data request 4308. Mark this as 802 for identification.

(Marked Exhibit 802.)

Q. Mr. Schoenbeck, do you recognize what's

been marked for identification as Exhibit 802 as your

response to company's data request 4308?

A. Yes, it is.

Q. And this concerns a study regarding correlation between flows at the Dalles with flows at the mid Columbia; is that right?

A. Yes, that's correct.

MR. VAN NOSTRAND: Your Honor, move the admission of Exhibit 802.

JUDGE HAENLE: Any objection?

MR. TRINCHERO: No objection.

MR. TROTTER: No objection.

JUDGE HAENLE: Objection from any intervenor?

MR. MEYER: None.

JUDGE HAENLE: Exhibit 802 will be entered into the record.

(Admitted Exhibit 802.)

Q. In your response to data request 4308 in Exhibit 802, it indicates, doesn't it, that one-third of the flow measured at the Dalles isn't related to the company's mid Columbia hydro generation?

A. Yes, that's correct. That's based on the average runoff that's recorded at the Dalles versus the lowest mid Columbia project, the Snake River and

the John Day River.

Q. Have you reviewed the testimony of Glenn Blackman in this proceeding where he discusses the relationship between flows at the Dalles and flows at the company's mid Columbia projects?

A. Well, I have read the testimony. I did look at his L at what he reported at as his plot of the coordination. Frankly, one of the things that was explicit within your question it was unclear to me in Mr. Blackman's testimony if in fact indeed was an analysis between the flows at the Dalles and the mid Columbia projects alone or if it was reflecting all of including Puget-owned hydro as well. It was unclear to me, but I did read the testimony. I did not review or analyze the supporting documentation for his exhibit.

Q. Was it your testimony that you haven't performed any similar such studies regarding that relationship?

A. No, certainly not. What my testimony is stating is the Bonneville Power Administration and Northwest Power Planning Council, the CSC are all organizations that are using this information and for consistency and I did not do any independent analysis to look at this other than the fact that acknowledging

their use of the data and some of the statements from

the joint hydro modeling efforts that were underway, it appeared that the data was reasonable enough to use in this proceeding.

Q. And one of the organizations that you cited in your testimony is the Northwest Power Planning Council; is that right?

A. Yes, that's correct.

Q. And the Northwest Power Planning Council doesn't set rates, does it?

A. No, they certainly do not.

Q. And isn't it true that for some purposes the Power Planning Council does use 50-year stream flows?

A. I don't know. My understanding is at least with respect to their acquisition of resources, which is primarily the tool that is primarily used, the ISAAC model it certainly does use the extended database.

Q. Are you familiar with the effort that's been given the name the system operation review by the three federal agencies, Bonneville, the Army Corps of Engineers and the Bureau of Reclamation to evaluate the environmental impacts of operations on the Columbia River?

A. I am vaguely aware of that process, yes. I

have not been involved in that.

Q. Isn't it true that in the system operation review of 50-year water analysis is used?

A. I don't know.

Q. You are familiar with Bonneville Power Administration rate proceedings, aren't you?

A. Yes, I am.

Q. Is it fair to say that Bonneville uses the 50-year water study for purposes of estimating power costs?

A. For purposes of determining nonfirm revenues and short term power purchases that's correct. Bonneville also does use -- they use the ISAAC model as well as the Northwest regional Power Planning Council and they also use the extended years.

JUDGE HAENLE: Would you spell the name of the model, ISAAC?

THE WITNESS: It's all capitals, I S A A C.

Q. And in its most recent rate proceeding Bonneville performed its nonfirm rate analysis program using 50 available water conditions; is that correct?

A. That is correct.

Q. And in fact you presented testimony on this point in the BPA rate proceeding; is that right?

A. Addressing the number of water years, no, I

did not.

Q. Addressing Bonneville's analysis of nonfirm rate analysis program?

A. What we addressed was their estimates of the price of the short-term power purchases. Part of their estimation in the rate making process Bonneville initially determines the revenue requirement based on the critical water capability. They then do a nonfirm rate analysis that is indeed based on 50 water years that in addition to determining the nonfirm revenues they assume for rate making it also determines their variable storage expense and their variable purchase power expense. Specifically, what I addressed was the market prices they were assuming for the power purchases.

Q. You did present testimony that analyzed the appropriateness and the accuracy or the results, I guess, produced by Bonneville's nonfirm rate analysis program?

A. Well, we basically -- there have been several logic or program changes that had gone on in the two years from the last Bonneville rate case that there is modifications made to the nonfirm rate analysis program logic as well as the ACME, ACME model logic and we did not dispute and we agreed with

those logic changes.

Q. And they went from a five-year selection process in the last rate case to going to a 50 available water conditions?

A. Yes, that's absolutely why the logic changes were used in the model. In the prior Bonneville rate case, Bonneville had determined nonfirm revenues using five water conditions that expanded what they believed to be the possible expected water conditions because they did it effectively a manual or spreadsheet type of analysis, they claimed at that time that the nonfirm rate analysis program did not have the necessary logic to correctly model the integration of -- now that Bonneville is at a load resource balance the integration of short-term power purchases and storage costs with the nonfirm revenue.

Q. And in your testimony in the Bonneville rate proceeding you identified two improvements which BPA should make in estimating nonfirm revenue. Is that a fair statement?

A. Again, I certainly recall that we approved the logic and we approved them moving back to the 50 years from the five.

Q. One of the improvements that you didn't

identify was using something other than 50 available

water is conditions. Is that a fair --

A. We're very happy to get them them back to fifty from five.

Q. But you didn't suggest there, as you are here, that they should be using 100 or 108 or 110, are you?

A. No, we did not.

Q. And Bonneville also uses a 50-year water analysis in its short-term risk evaluation and analysis model or stream; isn't that correct?

A. I guess that's not quite entirely correct, no. What they do is they -- it's a Monte Carlo simulation where there's basically a thousand draws. I guess to the extent this original database is predicated on the 50 water conditions, if that's what you meant, I would agree with that. It's basically a Monte Carlo draw situation.

Q. Would you agree that one of the major risk factors considered by the stream modeling is stream flow?

A. It certainly is one of the major factors. That's certainly the case. It looks at the total, both firm, nonfirm availability, the requirement for purchases, nuclear risk and other factors.

Q. And one of the things the model does is to operate the power system under critical conditions and also uses stream flow data from the remaining 46 years of record in order to simulate the full range of hydro conditions?

A. Possibly if you could recharacterize your question, I might be able to agree with you. Again, the other problem we may be having here, there's two stream models. One is a two-year and one is a ten-year model, but I guess -- could you restate.

Q. Perhaps it would be easier if I just quoted from your testimony given to Bonneville. Would you accept subject to check that page 17 of the testimony you submitted on March 2, 1993 you state as follows: "One of the stream model's major risk factors is stream flow. The model includes estimated natural flows at the Dalles with a critical period months. The model operates the power system under critical conditions. It also uses stream flow data from the remaining 46 years of record used by regional planners in order to simulate the full range of hydro conditions."

A. I believe you're reading from an exhibit that was actually sponsored by a panel. I was not the specific witness for that portion of the testimony,

but if that's how Mr. Wolverton, I believe,

characterized it, that's acceptable to me.

Q. The data, I take it, from this testimony, I believe you were part of that panel; is that correct?

A. Yes, basically to try to facilitate the process there was the joint customers of Bonneville did submit testimony in the form of a panel, that's correct.

Q. And the data used in the stream model is the 50 years from 1928 through 1978?

A. Yes, that's what I said. Those are the years that are used in this Monte Carlo drawing process.

Q. In your testimony submitted as part of this panel there were four changes suggested to the stream model; is that correct?

A. Again, I am not the witness on this section of the testimony so I could accept that subject to check.

Q. Well, was any of the changes recommended to the stream model a recommendation that they use something other than 50 years?

A. Again, I am not clear. I did not analyze the stream model. I was not part of that portion of the effort.

Q. Would you agree that of the four

improvements identified, the four recommended changes identified in this piece of testimony that none of the four related to using something other than 50 years of stream flow conditions?

A. I would accept that subject to check.

MR. VAN NOSTRAND: No further questions.

JUDGE HAENLE: Have you questions, Mr. Trotter?

MR. TROTTER: Yes.

CROSS-EXAMINATION

BY MR. TROTTER:

Q. Mr. Schoenbeck, just taking up the last subject first. Would you describe the Monte Carlo process you were discussing with Mr. Van Nostrand?

A. Well, the Monte Carlo process, what it initiates a process is effectively a random draw, so there are two stream models. One is a two-year and the other is a ten-year model. It takes a random draw of a given water condition and then depending on whether it's a two-year or ten-year model then uses that as a starting point to determine the expected stream flows for that simulation.

Q. So the model just takes selected at random

events from the 50 years and models whatever is

selected on that random basis?

A. Yes.

Q. That's not a 50-year rolling average in any respect, is it?

A. Again, what they do through this process, through this random draw process they come up with a thousand different games, if you will, to determine the expected conditions.

Q. Did you determine that the BPA uses the 100 or 100-plus year sample for certain purposes?

A. Yes. I was referencing, again, their resource planning program determining their resource expansion plans there within the ISAAC model. It, again, is a random draw simulation or the water conditions are a random variable but they do use the extended database. The other planning model within Bonneville, the 178 analysis model or sample as well uses the extended database.

Q. On page 10 of your testimony you refer to the California Energy Commission using 102 water years for determining Pacific Northwest hydro availability; is that correct?

A. That is correct. The Bonneville Power Administration has presented witness in the California

Energy Commission hearings urging the use of the

extended database for determining nonfirm sales from the Pacific Northwest to use in the California Energy Commission's integrated resource planning process.

Q. Now, with respect to the 358 megawatt capacity purchase you characterized Puget's estimated of its system peak as being crude. Do you recall that?

A. Well, yes. I believe I said it appeared to be a trend line.

Q. But "crude" was the terminology that you used?

A. Well, that may be a little strong, but in my view it's certainly not a sophisticated look at determining your capacity needs.

Q. Just using that term crude, given your use of it, if the determination of the system peak is crude, why would it be prudent for the utility to go out and sign a contract to acquire such an estimated need?

A. If that's the standard they believe, I was discussing if that's the standard that they believe is sufficient to acquire the capacity it would be a prudent action on their part to do it. On the other hand, our concern is again, with respect to the

mismatching of the expenses and the revenues and the

resulting cost allocation implications. I believe within some of Puget's least cost planning documents there may be even a reference to the need to possibly look at how they should forecast capacity.

Q. My question was from a prudence standpoint, if the estimate of capacity could be done better, isn't that a standard of prudence as well?

A. It certainly could be considered.

Q. And if a less crude method developed a lesser need for peak capacity, would that indicate that a higher need for peak capacity would be imprudent, a higher estimate of capacity would be imprudent?

A. That would be the result.

Q. With respect to the bidding rule and cost effectiveness, you responded to some questions on that. Did you assume that in the bidding process a resource would be cost effective if it was the lowest cost as a result of the bidding process?

A. I'm sorry.

Q. Let me try again. Is a resource that is selected from the competitive bidding process cost effective if it is the highest -- highest cost resource in the set of resources that are bid?

A. Not necessarily. The problem I'm having

with your question, as part of the RFP process there should be more standards to determine the selected resources in addition to just price. That's one of the all else being equal. If everything else is equal certainly the lowest cost resource should be the selected resource.

JUDGE HAENLE: Remember that if you speak too quickly and she doesn't get it, it will not appear in the official record. So to be sure all of your testimony appears, please concentrate on speaking slowly.

THE WITNESS: Thank you.

Q. And so a determination of whether a bid resource is cost effective may depend on a number of factors?

A. In addition to cost.

Q. And those factors would have to be evaluated by the company and then the prudence review by the Commission to determine whether it was in fact a cost effective resource?

A. That's absolutely the case, yes.

Q. One of your recommendations, if we could turn to page 3 of your testimony, I believe you also address it in detail on page 29. Looking at page 3,

line 18 with respect to the PRAM you recommend that

the Commission only allow Puget to book for recovery 90 percent of the difference in the PRAM/ECAC-related costs as determined by the SDM. Do you see that?

A. Yes, that's correct. That's really with reference to our, what I would call our secondary recommendation with respect to the PRAM.

Q. Now, do I understand that to mean that the resource-related PRAM costs are set pursuant to the SDM and if those actually come in 10 percent above what the SDM predicted there would be no true-up?

A. Basically that's correct.

Q. And similarly if they came in 10 percent below what the SDM predicted there would be no true-up?

A. I don't think just in terms of true-up, but again, yes. Basically what we're saying is that 90 percent of the difference should be flowed through so in a way there is a true-up. It's just not 100 percent true-up. I think if you talk in terms of they had forecasted $1,000 and instead they got 900, yes, there would be a true-up because the difference of 100 million what we're saying is 10 million of that would not be allowed to be recovered but the other 90 would either be a credit or a cost. So, in almost all

circumstances there is a true-up. It's just that we're saying that 10 percent of the difference should be withheld.

Q. There's been a lot of discussion on this record about incentives to the company. Doesn't the company have an incentive to minimize production-related costs in its normal conduct of its business?

A. You would certainly hope so, but I do believe that the best incentive is to give them a direct economic incentive and that's why our proposal to exclude 10 percent of the difference between projected and actual cost is such a mechanism.

Q. Turn to page 15 of your testimony. Here you're discussing the PRAM. On-line 8 through 11, is it your testimony that the large deferrals that have been experienced under the PRAM are not related to the company's pursuit of its least cost plan?

A. Yes, it is. I think probably an update to this testimony could be the current PRAM 3 filing that the company has now submitted to this Commission where they're requesting a deferred balance of somewhere in the range of $76 million and I believe approximately 52 or 53 million is attributable solely to hydro conditions. In my mind that is not part of the decoupling process that originated the PRAM

procedures.

Q. Now, you discuss in your testimony both in I think your primary recommendation said and your secondary recommendation said that there be a reallocation between the base and the resource cost categories?

A. Yes, that's correct. Just to make it clear, under both the primary and the secondary recommendation that particular part is identical.

Q. Have you read the testimony of staff witness Martin and staff witness Elgin in this docket or are you familiar with their recommendation with respect to base/resource cost split?

A. Yes. I did read both of those pieces of testimony and it's my belief that I think Mr. Martin's testimony and mine may be identical on this issue as far as I can tell. After reading his testimony, I did not submit any data requests to him but I believe we're basically saying the same thing on this issue.

Q. So as far as you know, the staff proposal is the same as yours with respect to the base/resource allocation?

A. Yes.

Q. On page 13 of your testimony, line 6 through 8, you testified that the PRAM has decoupled

Puget's revenues from its costs and insulated the

utility at the expense of ratepayers to all risks. Do you see that?

A. Yes, I do.

Q. Is that, then, the basis for your testimony on page 14 regarding the company's ability to earn 13.2 percent in 1991?

A. Certainly, that's the case. In particular I believe the 12.6 percent that's been recorded for 1992 as well, because, again, you have relatively disastrous conditions for other utilities that are under the jurisdiction of this Commission for 1992, vis-a-vis Puget and it again is because of the ability to book substantial sums in the deferred account under the PRAM process due to weather and hydro conditions.

Q. Last area is in the hydro realization issue, which you answered several questions from Mr. Van Nostrand, and he asked you about a study that was done and you indicated that it was based on a limited period of time and under flow conditions. And then it was indicated that the study was 47 months. Do you recall that line of questioning?

A. Yes.

Q. Is 47 months a limited period, in your estimation?

A. I believe it certainly could be realizing

that the mid Columbia flows are certainly affected by the upstream storage operation. Also, what is occurring during this time is various flow regimes because of weakened salmon stocks, additionally the analysis did not look at other factors that could impact it such as head water benefits. Principally, though, I still believe that until the operators of these plants or the regional planning committees recognize the lower capability that Puget alleges that it should not be used for rate making. That is certainly the case in the March 1993 load resource report by the PNUCC.

CROSS-EXAMINATION

BY MR. PAINE:

Q. Clarifying question or two.

Mr. Schoenbeck, both Mr. Van Nostrand and Mr. Trotter asked you some questions with regard to stream flow data?

A. That is correct.

Q. And I wanted to clarify what was meant by stream flow data. Is it not true that stream flow data comes in a variety of forms which depict different things. For example, have you heard of the

term actual or historical stream flow data?

A. Certainly.

Q. Let's just take the Dalles for example as a measuring point. Have you heard of the term natural stream flow data?

A. Yes, I have.

Q. That is different, is it not, than what is depicted with actual stream flow data?

A. I'm sorry, did you just say "actual" twice?

Q. I'm sorry, I was trying to distinguish between natural and actual?

A. Oh, yes. Yes, that's correct. You could maybe use the term "managed" as opposed to "actual" possibly. Natural and managed stream flow data.

Q. Let me give an example. If we're using actual stream flow at the Dalles, regardless of what happens, for example, if a dam is built above the Dalles in 1942, all of the recorded data prior to 1942 is what actually was measured, is it not, and all of the recorded data subsequent to 1942 is what was actually measured. The construction of the dam above the Dalles does not impact that data; is that correct?

A. I guess we'll have to be careful here. When you look at the whole process, why we're only dealing with 50 water years right now, the last being

1978, it's because of the efforts that are made to

make the data consistent as possible given current conditions. So, this has to do with, for example, the easiest ones that people can understand is irrigation depletions, and how the irrigation depletions are required now or were required the last time the analysis was done affected the generation that would have occurred had those those irrigation depletions -- the same amount of irrigation depletions with the water conditions that had occurred in the earlier years.

Q. Fine. We'll take depletions. We'll take irrigation loads which has come on in recent years. When you look at actual stream flow historical data, those depletions are not reflected in early years, are they?

A. That is correct.

Q. So there is a distinction. The data that is depicted really depends on what stream flow data you are looking at; is that correct?

A. Most certainly. You have to understand the basis for the data.

Q. Now, we've mentioned actual and we've mentioned natural stream flow data. Are you aware of others, for example, is there such a thing as

regulated stream flow data?

A. I guess in my mind, I am considering actual to be almost your regulated or managed flow data in the terminology I'm using versus what would have been natural.

MR. PAINE: Nothing further, thank you.

JUDGE HAENLE: Mr. Adams.

MR. ADAMS: Yes, I had a few questions.

CROSS-EXAMINATION

BY MR. ADAMS:

Q. Mr. Schoenbeck, referring you first, let me start off, you made two kinds of proposals as I understand it. One what you call a pure decoupling and then a second or an alternative which is somewhat akin to the PRAM with variations; is that correct?

A. Yes, that's correct.

Q. In your pure decoupling mechanism, am I correct that the company's weather normalized revenues would be compared to the company's base cost revenue requirement?

A. Yes, that's correct.

Q. And why are you proposing to use weather normalized revenues rather than actual revenues?

A. Basically the proposal is to use weather

normalized revenues to take out the fluctuations, in

other words, dampen the fluctuations that we have seen in the past at least for that one factor. Under the existing PRAM methodology, including the decoupling portion, weather impacts the base cost recovery of the utility in either upwards or downwards depending on severe or average conditions to try to make in my view the decoupling methodology that we're proposing more consistent with the principle of decoupling. We're taking out the impacts of weather, giving them, if you will, a certain fixed amount of base costs to be recovered.

Q. As part of this pure decoupling method, have you developed a method that should be used to adjust the company's actual revenues to reflect the effects of weather?

A. We have not taken it to that next step of coming up with a precise recommendation. Our view on this proceeding is there should very well be an implementation workshop where technical issues such as this would be reviewed and discussed by all parties. Initially, an initial starting point would obviously be the company's existing weather normalization approach.

Q. Is that what you would suggest using in the

interim, if you will, initially?

A. Yes. That would be the first thing to use unless it could be improved upon from the workshop.

Q. Now, at page 20, line 12 of your testimony, you say that the projected base costs will be determined fixed in a general rate case. Would that base cost revenue requirement be allowed to circulate between rate cases such as the current base cost revenue requirement -- such as currently where the base cost revenue requirement is allowed to circulate with customer growth?

A. Yes. I actually meant it in that manner.

Q. Now, turning to the alternate proposal that you make, is it correct that this proposal would retain the basic structure of the current PRAM such as the use of the revenue per customer amount for base costs and a calculation of resource costs using a simple dispatch model?

A. Yes, it would. The other part of the proposal we would have effectively endorse that what's been termed the rate moderation proposal be incorporated into the methodology as well to again possibly dampen the substantial rate increases we've seen under this method.

Q. Is it your proposal to use weather

normalized loads rather than actual loads in the true-up of the PRAM under this alternative?

A. Yes. That's a good clarification. It's not clear from my testimony but it was intended to use the weather normalized as was the case under our primary proposal.

Q. Now, as part of the alternative proposal, you proposed a change to the PRAM to provide Puget an incentive to control costs and maximize nonfirm sales, correct?

A. Yes. We're proposing to exclude from rate recovery 10 percent of the difference between projected and actual costs, as that are produced from the simple dispatch model.

MR. ADAMS: I would like to have your Honor mark a one-page document as the next exhibit in line.

JUDGE HAENLE: Next exhibit in line is 803. This is a one-page document. In the upper right-hand corner it has CKW-2 from docket No. UE-920630 page 2 of 9. This will be 803 for identification.

(Marked Exhibit 803.)

Q. Mr. Schoenbeck, what has been marked 803, would you accept at least subject to your check that this was used in the PRAM hearing UE-920630. It was part of Mr. Winterfeld's exhibit in that proceeding?

A. Yes, subject to check.

Q. I just want to use this if I might to basically get a better understanding of how your recommendations would actually work. Now, on the right-hand side of the page, do you see the three columns labeled allowed, projected and adjusted?

A. Yes, basically under 1991.

Q. Yes. Is it your understanding that the allowed column is based on amounts allowed by the Commission in the company's prior general rate case that was U-89-2688?

A. You're talking about just the dollars under column -- is it G?

Q. Yes.

A. Yes.

Q. And the projected column represents the amount that was projected or estimated as costs before the PRAM number one year began?

A. Accept that subject to check.

Q. Looking at the bottom of the page, the projected production cost was $34.8 million which was $4.2 million more than the amount allowed in general rates. Would you agree with that characterization?

A. Yes, that's the mathematics.

Q. Is it your understanding that the adjusted

column represents the amount of production costs

calculated after the month it occurred?

A. Again, subject to check I will accept that.

Q. So that after the fact the calculated production costs for October 1991 was $35.4 million which was $4.8 million more than the allowed amount. Would you agree with that?

A. Yes, that's the mathematics.

Q. Now, under your 90 percent proposal, the company would not be allowed to pass through the full $4.8 million in this example; is that correct?

A. That is correct.

Q. Is it correct that under your proposal the company would pass through 100 percent of the difference between projected and allowed which is $4.2 million and 90 percent of the difference between adjusted and projected, which is about --

A. Well, actually, the way I look in terms of the proposal it's whatever would be allowed versus actual. Under my proposal what I am saying almost all cost categories of the simple dispatch model should true-up to actual values, actual costs in generation. So to the extent I would characterize it as if we were to use the -- I would actually go over to the -- I guess it's column J under the actual, between the

$30 million and the $27 million, that difference of $3 million, only 90 percent of it would in this case be refunded to ratepayers.

Q. Excuse me. Which columns you would use, column J, actual?

A. Right. That's correct.

Q. And --

A. Whatever had been allowed in rates. So if we're taking G as allowed, and when I mean allowed in this case it's really as a result of the PRAM process, where there has been a hearing over what cost level should be allowed in the simple dispatch model. So if for the month of October it's deemed that the forecasted costs should be $30.6 million and ultimately they end up being 26.9, only 90 percent of that difference would be refunded to ratepayers.

Similarly, if the actual costs ended up being $36 million instead of the 26.9, only again only 90 percent of the difference would be collected from ratepayers.

Q. Is it correct that the adjusted power cost amount currently is calculated using some amounts that are left at their as-projected level rather than trued up to actual?

A. Yes, that's correct.

Q. For example, the amount of power from the

coal plants is not trued up to actual amounts; is that correct?

A. That is correct.

Q. For these cost items that are not trued up to actuals, does the PRAM already make the company responsible for 100 percent of the difference between the project costs and actual costs?

A. Well, it's difficult to answer with just a yes or no, because again it's how the -- the coal costs is a good example. To the extent the availability from the coal plant is not adjusted to actual levels it then impacts, flows down to the balancing wheel which is the surplus market, where there can be a deficit or a surplus indicated by the company's load resource balance. So in some cases it may put the company at risk for undercollecting, in other cases it may allow them to overcollect.

Q. For other cost items that are trued up to actual, does the PRAM currently make customers responsible for 100 percent of the difference between projected and actual costs?

A. I guess I have the same answer. Again, you're tending to isolate just pieces of the simplified dispatch model and if you focus just on

that piece you could assert that, yes, it holds them either harmless or it holds them at risk, but the problem is, it's just one piece of the simple dispatch model. That's why we're trying to say instead of saying some costs are trued up, some are not, let's just true-up all of them but then just allow the company to give the company the direct incentive to minimize their costs less than -- allow them only to collect the 90 percent of the difference between forecasted and actual.

Q. I was just trying to get at where your 90 percent approach, which costs it deals with?

A. Well, that's -- basically if you could refer to page 29, lines 13 to 15 is where we tried to make this clear. This is basically the paragraph discussing the 10 percent, the retention by the company of the 10 percent incentive, if you will. And what we're trying to say in lines 13 to 15 is that it is indeed all cost items so that it is with respect to for example going back to the coal plants, that's saying you would use the actual cost of the coal and you would use the actual availability or power produced from the coal plants. So it's really with respect to virtually all items from the contract line on, including the company-owned resources above those

lines of Exhibit 803.

Q. Well, let me ask you kind of a bottom line question to your approach. What incentives would your proposal create with regard to the company's projection of resource costs? Would it create an incentive for the company to overstate the projected resource costs?

A. It could, but again, I'm saying use the costs that have been approved by this Commission. So while you could assert the company may have such an incentive to overstate the costs, those costs would always be subject to a prudency review, a reasonablenessness proceeding, a PRAM hearing to justify the level.

Q. Okay.

A. So it's the Commission approved costs.

Q. So if, in fact, they have been overprojected the place where we would examine those would be in the next PRAM hearing; is that correct?

A. No. It's actually at the hearing that determines what costs to use. Again, this is a second alternative so we're saying there's still this PRAM process where the utility would file and there would be a hearing where the rates would change each October. As part of that process, as part of the

resource costs there would be an estimate on what the availability from the coal plants would be in the price of the fuel from those plants. Those would be the allowed, the equivalent to the allowed costs reflected in column G.

Q. But we would all be in the position of basically trying to determine whether a projection was reasonable?

A. That is correct.

Q. Okay. Do you also believe there should be some after the fact examination of the projection versus the actual? In other words, in terms of whether the projections were reasonable now in hindsight?

A. I would say only to the extent that you were relying on the information that was available at the time the decision was made.

Q. Thank you.

JUDGE HAENLE: Commissioners, I don't know the extent of your questions, I do know the chairman had some. How would you feel about breaking for lunch and coming back and asking those at 1:30.

COMMISSIONER CASAD: I feel good about it.

JUDGE HAENLE: Let's break now and come back at 1:30, please.

(Luncheon recess at 12:00 noon.)

AFTERNOON SESSION

1:30 p.m.

JUDGE HAENLE: Let's be back on the record after our lunch recess. In the way of procedural, matters, I believe Mr. Adams you wanted to move your document?

MR. ADAMS: Yes, your Honor. I would request the admission of exhibit identified as Exhibit 803 in evidence.

JUDGE HAENLE: Any objection?

MR. TRINCHERO: No objection.

MR. VAN NOSTRAND: No objection.

MR. TROTTER: No objection.

JUDGE HAENLE: From any intervenor?

MR. PAINE: None.

JUDGE HAENLE: All right. Exhibit 803, then, will be entered into the record.

(Admitted Exhibit 803.)

JUDGE HAENLE: Do you want to begin with your questions, Commissioner?

COMMISSIONER HEMSTAD: No, I will wait. Mr. Van Nostrand, if you want to go ahead with your additional cross?

BY MR. VAN NOSTRAND:

Q. Mr. Schoenbeck, in responding to questions from Mr. Trotter, you discussed your proposed allocation of costs between base and resource; is that correct?

A. Yes, that's correct.

Q. And do I understand correctly that you proposed to move some of the costs currently classified as base to the recourse category?

A. Yes, that's correct. A simple example would be production depreciation expense.

Q. Have you done any sort of analysis of results that are likely to be contained under your proposed allocation?

A. No. I did not determine the resulting base customer unit cost, if you will. Again, I believe, and I am encouraging that the Commission order a workshop such that calculations such as that may be determined on a collaborative basis after a Commission decision.

Q. And that workshop would consider not only the calculation of the actual per customer cost but perhaps look at the financial results that it would obtain under that proposal?

A. No, it would not go that far. It would

just be an implementation of the Commission order should they adopt that aspect of my testimony.

Q. And turning to another point of your testimony that was discussed with Mr. Adams, your proposed 90 percent recovery of the difference between forecasted and actual. Did I understand correctly that the actuals would be as determined in a general rate case?

A. That the forecasts would be as determined in either a general rate case or a PRAM proceeding.

Q. And so how would new purchased power contracts that are included as part of the PRAM be treated?

A. Well, with respect to either a company-owned resource or a new purchased sales contract, that would not be included in the PRAM proceeding. Again, under the simple dispatch model there is the balancing wheel that is the variable costs that are assumed to supply any surplus or deficit, and that would still be used. It is effectively the company's rate moderation proposal in this case. It would be that treatment that would be afforded the new resources that are brought in line during the future PRAM period.

Q. So for example, if a resource such as Sumas came on-line and the power costs were reflected as part of the PRAM, inasmuch as that represents an increase in power costs, would only 90 percent of that increase be recovered?

A. No. I'm saying that new resource would actually be part of the resource tracker. I'm saying mechanically how you would represent that resource in a simplified dispatch model as an initial step would be to use the surplus or deficiency rate. Then in the subsequent prudency review, if you will, of that resource, then you would be able to collect the total 100 percent of the difference between what had been deferred and what had been used in the simple dispatch model.

Q. And how are hydro conditions treated under your proposed 90 percent recovery?

A. It would be actual hydro.

Q. Like to follow up on some questions from Mr. Trotter regarding your testimony on page 14 concerning the actual earned returns of the company. Do you recall that?

A. Yes, I do.

Q. And your testimony notes the earned return of 13.2 percent by the company during 1991; is that

correct?

A. Yes, that's correct.

Q. And isn't it true that the PRAM did not become effective until October of 1991?

A. Yes, that's correct.

Q. And weren't hydro conditions during the first part of 1991 unusually good?

A. We had this discussion a year ago because this same statistic was in my prior testimony and there is a differing view on that. I believe the water conditions for calendar year in 1991 in essence were barely at average. The company has chosen to characterize those as good and I consider it average.

Q. Would you accept subject to check that the Commission also found the hydro conditions to be good as stated in the third supplemental order in the decoupling proceeding, page 22, would you accept subject to check?

A. I recall.

Q. The Commission notes, "the lower current cost of capital and the exceptionally good hydro conditions which the area is experiencing under traditional rate making the company would have a good year." Would you agree the Commission made that statement?

A. It was undoubtedly based on the fact that

the prior four years had been below average so it's all relative. When you then have an average year it appears to be very good but it, in fact, was just an average hydro year.

Q. Your testimony also refers to the 12.6 percent actual earned return earned by the company during '92?

A. Yes.

Q. You would agree that during '92 the company received a $6.7 million payment under the incentive payment mechanism for achieving a certain level of conservation savings?

A. That's the case, yes.

JUDGE HAENLE: Madam Chairman, have you questions?

CHAIRMAN NELSON: Yes.

EXAMINATION

BY CHAIRMAN NELSON:

Q. Mr. Schoenbeck, just a couple. I like the structure of your testimony. As I understand, and tell me if I'm wrong, the basic outline is your preferred alternative is summarized on page 2, which is the pure decoupling plus?

A. That is correct.

Q. And then if the Commission were to go with that recommended reform, the second alternative, second preferred alternative is on page 3; is that right?

A. That is correct.

Q. And then is the last paragraph that begins on page 3 and goes over to the next page, is that the third alternative?

A. No, it really is not. Basically what we're suggesting, and we do it in more detail in another portion of our testimony is just with respect to the general administration of the PRAM process or the decoupling process. Currently it's on a three-year cycle where there is a general rate case and in addition to that a PRAM filing, it's a current PRAM 3 filing. Part of what -- we're proposing two things in this preference paragraph. The one thing is that those two filings be consolidated into just a general rate case filing. We are concerned about issues that were addressed in the general rate case filing could also be a portion -- could also be -- have to be readdressed in the PRAM 3 filing.

In addition to that, we're suggesting that the idea of a rate moderation proposal makes sense to

potentially limit the rate increases from what could be two separate filings. So what we're trying to say is we think a decision in this case should -- we would like it to include the mechanics and mechanisms that would be incorporated into the PRAM 3 filing instead of having two separate administrative processes.

Q. Now, I'm a little confused because I thought the separation -- with the pure decoupling, the least cost resource tracking account, and the elimination of the power cost variation, I thought that was all one package. That's WICFUR's preferred --

A. Right.

Q. -- reform. But I thought part of that was that the resource tracker and the decoupling proposals be considered concurrently but in separate ways? Am I totally confused here?

A. No, I'm sure I confused you. Fundamentally, what the reference -- our concern was that under the existing PRAM structure we have the situation we have today where there's both a general rate case filing and a PRAM filing. So what we're saying is, what we're suggesting here is there should be an, if you will, a consolidated decision or the decision in the general rate case should take into account what is occurring in the PRAM 3 filing. What

we have before us is somewhere in the range of a $100

million request by the company in the general rate proceeding. We also have a PRAM 3 proceeding with a request of $76.5 million. So the decision in this case in the adoption of the rate moderation proposal should take into account both those requests. That's basically what this paragraph is saying, that what I was trying to explain in another further portion of our testimony it talks in terms of it would help to eliminate this duplicative process, if you will, by having a cycle where if you have a decoupling type -- the existing PRAM type cycle, you would have a PRAM filing, in the PRAM filing. In the third year you would not, that would be transplanted by the general rate case.

Q. I am not tracking with you and it's time to get with testimony further on in your prefiled testimony. Thank you very much.

Then with respect to page 11 of your testimony, the conclusion of the discussion of the adoption of the period of years to use for measuring water. Is your recommendation in this case applicable only to Puget or would WICFUR have this recommendation for all three utilities under our jurisdiction?

A. Fundamentally, we're recommending that the

same method should be applied to all three utilities.

It would be our recommendation that it is the extended database.

Q. The 102?

A. As many as available, the 102, or 111 or 113, that an extended period of years should be used and it should be applied to all utilities as a Commission policy to try to simplify the process on this issue.

CHAIRMAN NELSON: That's all I have.

COMMISSIONER CASAD: I just have a couple.

EXAMINATION

BY COMMISSIONER CASAD:

Q. Regarding the resource tracker, I am trying to sort this out and so I understand what you are recommending. On page 29 of your testimony you say on line 7, "only 90 percent of the difference between forecasted and actual expenses should be deferred for subsequent recovery." And you also indicated, and I guess -- you also indicated that the only expenses or the base case for recovery of expenses should be that which is allowed by the Commission or has been allowed by the Commission. Am I correct on that?

A. The projected costs. This is under the

alternate recommendation when there's still a PRAM mechanism in place. You would, under the simple dispatch model, you would review all the costs that are to be included on a projected basis.

Q. So these would not have been Commission-approved costs, i.e. approved in a rate case, and therefore recoverable by the company. These would be projected costs from the simple dispatch model which the Commission has been made aware of?

A. Well, I guess I am assuming they are a prudent cost. To the extent -- maybe the example right now is the costs that were used in the simple dispatch model for the PRAM 2 period. In my mind the projected costs they used in that model for the rates that went into effect October 1, 1992, I am viewing those costs as being Commission-approved in my writing of this testimony. So then a year later after the fact you look at what had been used in the simple dispatch model on this projected basis and what had actually occurred. And the utility would be at risk for 10 percent of the difference between the total cost that had been projected versus what had actually occurred. I am assuming when I used the word projected, yes, the company provided an initial projected estimate, but however there is a hearing

process at which all of those costs were reviewed by

all the parties to this proceeding and the Commission made a final determination on what the costs should be used in that model, as is effectively currently the case. There is some approval of that cost by the Commission.

Q. And I am trying to differentiate -- the Commission would authorizes the recovery of actual costs. I am not so sure that the Commission would up front authorize the recovery of projected costs. Now, in the PRAM process once the Commission orders the acceptance of a filing then it becomes approval, it becomes an act of approved costs as far as the Commission is concerned. Is there a difference without a difference here or --

A. I don't believe there is. Maybe another way of looking at it is let's look in terms of a general rate case. The starting point of a general rate case filing is the company's actual production-related costs for that historical period. They then proceed to make a series of proforma or normalization adjustments. So we've moved off of these quote-unquote actual costs to what they believe the costs that will be incurred during the rate period. Those are then approved by you. I am saying

let's use those costs as the actual -- excuse me, not

actual -- as the Commission-approved projected costs in the simple dispatch model.

Q. Okay. So what you want to do is you want to take a filing which has been submitted by the company and then proformed by the staff and rate making adjustments applied by the staff and/or the company and then use that as the actual?

A. That's close. Just to make sure we're clear about this. The company can make any proforma normalization adjustments they want to in their initial filing and it's those that would then be under the scrutiny of both the Commission staff but also public counsel, WICFUR certainly and any other party that would wish to dispute some aspect of that filing. But yes, once those costs have been reviewed, argued over, cross-examined and briefed and finally determined by you to be appropriate those would be the costs that would be the benchmark to then compare their actual costs to.

Q. Okay. Then after that process was completed, the company would be authorized to recover 90 percent of the actual costs if the costs, if they did not exceed the cost figures established, and if those were exceeded then they would recover 100 plus

10 percent of those costs; is that correct?

A. It's actually not quite that onerous. It's 90 percent of the difference between forecast and actual. You're probably confused because I did initially misspeak I believe during my cross-examination by Mr. Trotter. But we're looking at the difference, so, again, to the extent they had projected $1,000 of actual costs came out of the simple dispatch model and there ended up being $900, it would only be 90 percent of the $100 difference. So the company in this case would refund $90 and they would get the benefit of $10. Similarly, if instead of -- if the actual costs ended up being $1100 and we had projected $1,000 the company would be able to seek the recovery of an additional $90, because they get to recover our -- surcharge our credit 90 percent of the difference.

Q. And then there would be no further demonstration regarding entitlement or disallowance regarding those costs other than the acceptance of the pro-formed filing and the actual costs?

A. Fundamentally that's correct.

Q. Regardless if it rains a lot or if it doesn't rain a lot or if lightning strikes the substation five times in a row, thrust bearing goes

out in a generating system, none of these things are

-- they're obviously not proformed so the company either suffers as a result of that or they gain as a result of that kind of thing?

A. Well, they would only be at risk for 10 percent. I am not saying go down line-by-line. It would only be 10 percent of the total difference. So they would be at risk or reward for 10 percent of the things that actually occur.

Q. But with no demonstration that the savings were accomplished through management efficiency or some external factor?

A. That's correct. I told Mr. Adams to the extent there could be, if there would actually be a showing that if you knew at the time the projections were made that may be one exception, but generally I agree with how you're characterizing the proposal.

Q. And that's supposed to be an incentive for the company to perform -- to manage efficiently?

A. Absolutely, it's a direct incentive, I believe.

Q. Even though external factors could affect those figures, the outcome, over which they had no control?

A. That's where we differ. I believe there

are very few things that the company has absolutely no control over with respect to their production costs. Yes, things could occur, but being a good, well managed utility there will be compensating things. I think that was alluded to during at least a couple of clarifying transcripts of how, yes, the company is better to react to things that are beyond their control, if you will, than customers are. They can operate in, I think, having these types of incentives are basically absolutely necessary for a mechanism such as this. The existing PRAM, I think that's -- it's just that direct price signal hanging over the company's head to be efficient. That's absent from the current method.

COMMISSIONER CASAD: Thank you.

JUDGE HAENLE: Commissioner?

EXAMINATION

BY COMMISSIONER HEMSTAD:

Q. Your apparent preferred alternative for water years is to use a 40-year rolling average. Is that an accurate way to describe it?

A. Now, my preferred alternative on the water years is to use the extended.

Q. I'm sorry, it is a 100 plus?

A. Yes.

Q. Alternatively the 40, the company is proposing 50. Could you give me a brief explanation of each of those and why 100 or 40 is better than 50.

A. Well, basically there's really two schools of thought on this issue. My recommendation is to use the 100 because we really don't know what next year's rainfall will be. It is, in my view, a very random occurrence. Accordingly, to the extent if you accept that philosophy then the larger the database generally the better on a truly random occurrence, the more observations you have --

Q. Are you confident of the accuracy of the data from the earlier part of the century.

A. With respect to the data from the earlier part of the century I have effectively accepted the validity of it by its use by some of the major planning organizations of the region. I know as part of the hydro workshop the representative of the Northwest Power Planning Council, Mr. Fazio, I believe, actually in one of the initial workshops said they had reviewed certain aspects of the data in going from the 50 to the 100 years, and they thought it was reasonable to their purposes. So the fact that Power Planning Council is using it for their planning, while

they do not set rates it is just as important in fact

if not more so to determine what resources are required for the region. They believe the extended data is a more appropriate use than the 50 water years. Similarly, I thought it was insightful that the Bonneville Power Administration sent witnesses on two occasions down before the California Energy Commission to say that they should, in fact, use 102 water years. Basically I was accepting the data because authoritative bodies such as those had been recommending the use of it.

Q. So then in terms of why is 40 better than 50?

A. With respect to the 40, we have to be very careful here when we talk in terms of 40 versus 50 water years. What's implicit within your question is using a rolling 40 year average or the most recent 40 years as opposed to historical period that sends 40 years ending in 1968. Basically that school says a little bit of the opposite view that there could be cycles to water years, that the more current date is relevant. Examples are given such as how weather normalization adjustments it's very common to use the most recent 10, 15, 30 years of data. Basically, we view the rolling, most recent rolling 40 years as the

second best alternative. If you remember that view,

that is a reasonable recommendation. Our fundamental problem is Puget falls somewhere in the middle between those two logical camps where they say no, it should be the most recent data then it should be the most data but we will use a selected portion from the middle of the data stream. And that's the fundamental problem we have with the average of 50 years.

Q. The average of the --

A. The 50 years ending in 197 -- the average of the 50 years ending in 1978.

Q. As a fixed period, okay. I understand. No further questions.

JUDGE HAENLE: Anything else, Commissioners?

Have you redirect, Mr. Trinchero?

MR. TRINCHERO: One moment, your Honor.

MR. MEYER: Your Honor, I will have brief cross.

JUDGE HAENLE: I saw you pull the microphone up but let's take redirect first and then if he has any redirect I suppose assuming your questions are brief.

MR. TRINCHERO: Yes, I just have a few short questions.

REDIRECT EXAMINATION

BY MR. TRINCHERO:

Q. Mr. Schoenbeck, you've been asked some questions regarding your two alternatives on decoupling and I think there may be just a little bit of confusion as to which parts of your recommendation go to which alternative. If you could just briefly describe for me the first recommendation and the alternative and how those would operate.

A. The primary recommendation is that there be a pure decoupling aspect that looks at a redefined base cost. The base costs would be determined on a per customer basis and that would be allowed to grow as you went through a three-year cycle, representing between general rate cases based on the number of customers. With respect to conservation investment and new contracts or new resources, whether they be utility owned or developed by third parties, there would be a least cost resource tracker. What that would do is when that resource would come on-line Puget would effectively defer in a tracking account the total revenue requirement associated with that resource, less the short term purchased power costs that had been assumed to apply that resource.

Upon a prudency review by this Commission, if that resource was deemed as the most effective least cost resource for Puget they would be allowed to 100 percent of that cost. By so doing you have what I believe is the original intent of this Commission to have a decoupling to take away the incentive for the utility to have sales through the base cost component, and the least cost tracker would also allow them timely recovery of any new resources brought on-line as long as they were deemed prudent by this Commission.

Second alternative proposal or second best alternative is primarily just modifications to the existing methodology. The first modification is again recategorizing costs between the base cost and resource category. The second aspect, second significant aspect of our proposal is with respect to the simple dispatch model. What occurs with that model is only certain costs are trued up, that is, the actual costs are inserted in replacing the projected value. What we're proposing is that all the cost of the resources be updated to actual values and that you look at the bottom line total difference between what had been used on the projected basis and what had actually been realized and Puget would be at risk for

10 percent of that difference.

The other aspect, the final aspect of that proposal, significant aspect of that proposal is again recognizing what Puget has called a rate moderation proposal would certainly be good to include that in the process to insure that there would be reasonable rate increases from time to time through this mechanism. That would be used as a balancing tool, if you will, to control, so there would not be significant rate volatility under this process.

Q. Thank you, Mr. Schoenbeck.

MR. TRINCHERO: I have no further questions. Thank you.

RECROSS-EXAMINATION

BY MR. MEYER:

Q. This series of questioning is provoked by an expression of interest by two of the Commissioners on the water year issue. I believe you were asked by Chairman Nelson whether you believe that the use of 100-plus years of water data available for the Dalles should be applied to not just Puget but the other utilities as well.

A. That is correct.

Q. And did I understand your response to be

yes, you thought it should be?

A. Certainly, for your Columbia River projects.

Q. And that's the point I mean to explore. Would you accept subject to check that 70 to 80 percent of Water Power's hydro generation is Clark Fork-based generation at the Cabinet and Noxon plants?

A. Certainly, subject to check.

Q. And do you know what correlation, if any, there is between Clark Fork flows and Dalles flows?

A. No, but just again my assumption on using the extended database that it would be applicable to primarily the Columbia main stem projects.

Q. I see. And do you know what proportion at share those Columbia main stem projects make up in terms of water power's overall hydro generation?

A. No, I do not.

Q. Now, would you -- the Dalles data goes back to 1879, am I correct?

A. 1978, '79.

Q. So we have roughly 110, 112 years of data available?

A. Yes, that's correct.

Q. Would you accept subject to check that we have water data available on the Clark Fork only back

to 1928?

A. That would not surprise me.

Q. To lay the foundation for this next question, I will read a brief excerpt from the January 10, 1985 Commission order in Water Power's cause U-84-28 in which this issue was discussed and I am reading from page 14 of that order. And just to lead into that, in that case would you accept subject to check that the Department of Public Counsel had recommended the use of a 105 year study made of the Columbia River drainage at the Dalles for purposes of stream flow normalization for water power?

A. Subject to check.

Q. Then subject to check reading from that Commission order at page 14, the Commission rejects Mr. Lazar's recommendations for several reasons -- and Mr. Lazar had recommended 105 year proposal. "First, the correlation between the company's net secondary sales and stream flows at Noxon Rapids and at the Dalles is not sufficiently high to allow the single point of the Dalles to be used to adjust secondary sales revenues for rate making purposes. Second, the asserted relationship between annual natural flow of the Dalles and the Noxon does not take into account regulated flows. The third, the analysis does not

take into account the timing or runoff during any year which would make a significant difference in the value received for electricity."

Would you accept subject to check that I've read that accurately?

A. Certainly.

Q. Where in your testimony in this proceeding have you addressed any of those perceived shortcomings?

A. Well, I would have to examine the document. Certainly some of those I did not specifically address, but I believe the main thrust of the testimony that it is sufficient to use the extended database for the Columbia main streams is based on the fact that it is used by the organizations I've discussed.

MR. MEYER: That's all I have.

JUDGE HAENLE: Anything else of the witness? Thank you, sir, you may step down. Let's go off the record to change witnesses.

(Recess.)

JUDGE HAENLE: Let's be back on the record. During the time we were off the record the witness for Pacific Corp assumed the stand. During the time we were off the record I marked for identification three documents as follows: T-804 for identification, prefiled testimony. In the upper right-hand corner it

has DFL-1.

805 for identification in one page in the upper right-hand corner DFL-2.

806 for identification in one page, a chart, DFL-3.

(Marked Exhibits T-804, 805 and 806.)

DIRECT EXAMINATION

BY MR. PAINE:

Q. Would you please state your name and business address for the record.

A. My name is Diane F. Lozovoy, that's L O Z O V O Y.

Q. By whom are you employed?

A. I am employed by Pacific Corp.

Q. In that capacity, Ms. Lozovoy, have you caused to be prefiled in this proceeding prefiled testimony?

A. Yes, I have.

Q. And placing before you what has been marked for identification as Exhibit T-804, does that constitute your prefiled testimony?

A. Yes, it does.

Q. Placing before you what has been marked as Exhibits 805 and 806, do those constitute exhibits

that accompany your prefiled testimony?

A. Yes, they do.

Q. Were these exhibits prepared by you or under your supervision?

A. Yes, they were.

Q. Do you have any corrections or revisions to make to any of these three exhibits?

A. No, I do not.

Q. If I were to ask you the same questions that are set forth therein, would your answers be the same here today?

A. Yes, they would.

MR. PAINE: I would move for admission of Exhibits T-804, Exhibit 805 and 806 and tender the witness for cross-examination.

JUDGE HAENLE: Any objection?

MR. VAN NOSTRAND: No objection.

MR. TROTTER: No objection.

MR. ADAMS: No objection.

JUDGE HAENLE: Objection from any intervenor?

MR. TRINCHERO: No, your Honor.

JUDGE HAENLE: T-804, 805 and 806 will be entered.

(Admitted Exhibits T-804, 805 and 806.)

CROSS-EXAMINATION

BY MR. VAN NOSTRAND:

Q. Good afternoon, Ms. Lozovoy.

A. Good afternoon.

Q. Could you describe how Pacific Corp came to be involved in this proceeding?

A. We were requested by Ken Elgin of the Commission staff to intervene in this proceeding with respect to the number of water years that are appropriate to be used in the calculation of a normalized net power cost.

Q. And your testimony is limited to that issue of treatment of stream flows and the normalization of electric utility production costs?

A. Yes, it is.

Q. Your testimony also refers to a collaborative group that met from time to time for purposes of discussing this issue; is that correct?

A. That is correct.

Q. Who was present at these collaborative meetings?

A. There were a number of parties available. There were representatives from Puget, representatives from Washington Water Power. I was present

representing Pacific Corp. Don Schoenbeck and some others represented WICFUR at those meetings. Jim Lazar was present for public counsel on some occasions and there were a couple of other parties. John Fazio from the Power Council, Northwest Power Planning Council. That's as many of the representatives as I can remember at this point.

Q. Was anybody there from the Commission staff?

A. No.

Q. Were these meetings of the collaborative group productive in terms of examining the issue of stream flow normalization?

A. By productive, I am not sure. Can you define what you mean by productive.

Q. Were you able to identify the differences among the party and attempt to narrow the issues with respect to this item?

A. I believe we did identify a lot of the differences between the parties. We weren't able to come to any agreement. Possibly we narrowed the issues.

MR. TROTTER: Excuse me?

THE WITNESS: Possibly we narrowed the issues but I don't think that I could say that we came

to any agreements.

Q. Your testimony at page 5 refers to a comparison of stream flows from the last few years to the level that was recorded during the '29 to '31 water years. Do you recall that in your testimony?

A. Yes, I do.

Q. Have you prepared any or performed any comparison of stream flows during the last two years to those which occurred during that period?

A. Those which occurred during --

Q. That '28 to '32 or the '29 to '31 period, have you done an actual comparison as far as the actual stream flows the last couple of years versus the stream flows during that period?

A. Yes. The exhibit that was marked 806 DFL-3, the graphic representation of the data, shows the volume of data actually for each year from the 28, 29-year through the year ending July of 1992. Strictly comparing numbers of the volume of stream flow, there are two years out of the last four which are reasonably close to the volumes that were experienced in the 28 through 30 time period.

Q. I notice your Exhibit 806 refers to modified stream flow volumes. How does that relate to the terms actual volumes, natural volumes and

regulated volumes as discussed this morning?

A. There are a number of terms that are used in describing series of stream flow data. I used here modified stream flows which are a representation of stream flows as they would have been over this period of record had there not been any river controls, dams, reservoirs in place, and if the current level of depletions -- that would be the irrigation, municipal -- depletions from the river had taken place consistently over that time. Actually these modified flows represent depletions at the 1980 level.

Q. How does the use of modified stream flow compare with measures used by other witnesses in this proceeding, for example, Mr. Blackman what did he use?

A. I am not sure what Mr. Blackman used. I think at some point in his testimony he referred to natural stream flows. Output of the hydro regulation models used in the Northwest was used in some versions -- some of the testimony presented here also. Those stream flows would represent the effects of all the dams and reservoirs currently in place over the entire time period.

MR. VAN NOSTRAND: No further questions, your Honor.

JUDGE HAENLE: Have you questions,

Mr. Trotter?

MR. TROTTER: Yes.

CROSS-EXAMINATION

BY MR. TROTTER:

Q. With respect to how Pacific became involved in this proceeding, isn't it correct that the Commission in its order indicated that it wanted to hear from other, the other utilities on the issue of water years?

A. The Commission in what order?

Q. In a prior order, are you aware of that?

A. I am aware that the Commission in its order to Puget Sound asked for -- was interested in having the parties get together and discuss this issue.

Q. Turn to page 5 of your testimony. You are referring to the 40 years, you say that unless the rolling average methodology was in place for a very long time, more than 20 years, the 40 year rolling average methodology did not produce the smallest cumulative error. Do you see that?

A. Yes.

Q. How long has the 40 year method been in place for Pacific Corp? Since U-86-03?

A. I believe that's correct.

Q. And in the broader consideration that this

Commission has used historical cost rate base almost since its inception, would you accept that?

A. I would accept that.

Q. Are you suggesting that the Commission is incapable of committing to a procedure for a multi-year period?

A. I am suggesting that Commissions do change over time and as new data comes forward or different schools of thought come forward, people do change their minds.

Q. Are you suggesting that the Commission is incapable of staying with a method, if it felt for policy reasons it was appropriate to do so?

A. Could you repeat that.

Q. Withdraw the question. It's not the Commission or its staff that is suggesting a change in the 40-year method, it's the company and Pacific Corp, among others, isn't that right?

A. Given that the Commission has asked Pacific Corp, and I believe the other utilities represented here, to do a -- to use a 40-year rolling average technique and that Pacific and the other utilities represented here would believe that there is a better representation or a better estimate of a normalized

stream flow, we --

Q. Your answer is yes with that explanation?

A. Yes.

MR. TROTTER: Nothing further.

JUDGE HAENLE: Have you questions, Mr. Trinchero?

MR. TRINCHERO: Yes.

REDIRECT EXAMINATION

BY MR. TRINCHERO:

Q. Good afternoon.

A. Good afternoon.

Q. Is it correct if I may paraphrase your testimony on page 6 that your recommendation in this proceeding is that each of the three investor-owned utilities should be permitted to use differing normalization techniques in order to address differences in their operations in the watershed from which they receive power; is that correct?

A. That is correct.

Q. And what method does Pacific Corp use currently?

A. Pacific Corp uses a combination of several of the methods that have been discussed here. Pacific purchases power from mid Columbia projects for that

project -- for generation from those projects. We use

the 110-plus years to weight the 50 years of computerized simulated stream flow data. For Pacific's own generation in the Northwest, which was primarily in the coastal range, Pacific uses the average of the 50 water years, and for Pacific's hydro generation in Utah where the detailed analysis is just not available, we have been using an average of the last 20 years of actual generation.

MR. TRINCHERO: No further questions.

JUDGE HAENLE: Mr. Meyer, have you questions?

MR. MEYER: I have none.

JUDGE HAENLE: Mr. Adams?

MR. ADAMS: Yes.

CROSS-EXAMINATION

BY MR. ADAMS:

Q. Good afternoon.

A. Good afternoon.

Q. Page 2, line 15 of your testimony you describe the hydro normalization process. Would you agree, based on your statement there that the basic test of a hydro normalization method is how representative it is of expected or most probable

future conditions?

A. Yes, I believe I would agree with that.

Q. That is essentially your statement that starts at the bottom of page 5, is it not, where you state the purpose of normalization in rate proceedings is to determine the best estimate of what water conditions will be over the relatively short period of time for that newly established prices will be in effect?

A. Yes.

Q. Will you turn to your 806, DFL-3. Now, there is a horizontal line at 130 million acre feet. What does that represent?

A. That is the mean of the stream flow volumes, the modified stream flow volumes, from the year 1929 through July of 1992.

Q. When you say the word modified, what do you mean?

A. Modified stream flows are the natural stream flows. They have been adjusted from the observations to remove the effect of river controls, dams and reservoirs and then to further modify that data to be representative of the level of stream flow depletions at the 1980 level.

Q. Is that -- when you say at the 1980 level,

is that something that is also updated on a 10-year

basis?

A. I believe it is updated. I don't know about the 10-year basis.

Q. So do you know when that 1980 adjustment will next be revisited or readjusted?

A. I don't know. I expect it will be updated along with the hydro regulation which will update all of the stream flow data for an additional ten years.

Q. Looking at that exhibit, there are also two heavy lines on the graph that represent the cumulative average and the 40-year rolling average?

A. That is correct.

Q. Can you explain why the cumulative average line begins in about 1959?

A. I began it at I think it was 1958 related to because or I think the Northwest in general started working with normalized data when there was approximately 30 years of data. So I started the cumulative average at that point. It could have started all the way back at 1929 with the average being the 1929 value and moving forward with two and then three and four. I started with 30 because I didn't feel it was really appropriate to start before that.

Q. So then the starting year for your cumulative average is 1929; is that correct?

A. That is correct.

Q. And is that the same reason, rationale you've just given would be why the 40 year rolling average begins around 1968, '69?

A. That is correct. You can't have a rolling 40 year average until you have 40 years of data.

Q. Is the purpose of this graph to demonstrate that the cumulative average line is closer to the long term average line than is the 40 year rolling average line?

A. There were a number of purposes for this graph, and the cumulative average would, by definition, be very close to the average for the long term period of record. In fact, the final point on the graph would be the same point by definition.

Q. So is the answer yes?

A. No.

MR. PAINE: I believe you asked her the purpose.

Q. Is that at least one of the purposes?

A. That is one of the purposes.

Q. In effect are you using the long term average as a standard to judge the cumulative average

and the 40 year rolling average?

A. No. On the graph I am not trying to judge anything. I wanted to lay out the data for illustration of the variability in the year to year numbers as compared to the difference between a 50-year rolling average and a 40-year rolling average. I was also -- one of the things that was of interest to me is that the 40-year rolling average is moving in a downward direction at this point in time in 1990 -- well, as of 1992 it was moving in a downward direction.

Q. Are you implicitly assuming that the long term average is equal to expected hydro conditions in the future?

A. I believe that that's the best measure of the expected hydro conditions in the future.

Q. In other words, your analysis assumes that there is no trend or cycle in hydro conditions; is that correct?

A. My analysis assumes that if there is a trend or cycle in the data it is not statistically significant at this point and until that would be the case that the long term average is the best estimate of the expected value of that data.

Q. Do you assume that there is no trend unless

it can be proven that there is a trend?

A. That's probably the best way to say that.

MR. ADAMS: Thank you, that's all we have.

JUDGE HAENLE: You describe the line as the mean of the modified stream flow volumes 1929 to when?

THE WITNESS: Through 1992.

JUDGE HAENLE: Commissioners, have you questions of the witness?

CHAIRMAN NELSON: This is going to sound flip, but are you busy?

THE WITNESS: Generally about 100 percent of the time.

CHAIRMAN NELSON: The reason is, we don't see much of your company and I just looked at your duties which is preparation of information used in filings. And am I to conclude in my simplistic way that what you're here to say is it ain't broke, don't try to fix it, Commission, at least as it applies to Pacific Power?

THE WITNESS: Well, I think so as long as you go with the "ain't broke" part at 50 years or using all the available data, that would be right.

CHAIRMAN NELSON: But essentially Pacific is comfortable where it is with its various systems and its various watershed and it doesn't want to

change its practices?

THE WITNESS: That is true to some extent. We do business in seven different jurisdictions and to the extent we can remain consistent among all of them it makes my job easier.

CHAIRMAN NELSON: Is there consistency in treatment by the Commissions in all of your jurisdictions?

THE WITNESS: With the exception of this Commission, yes.

CHAIRMAN NELSON: Thank you.

JUDGE HAENLE: Commissioners?

EXAMINATION

BY COMMISSIONER CASAD:

Q. Does Bonneville and the Power Planning Council use stream flow data for different purposes or in a different manner than do the investor-owned utilities in the Northwest?

A. I believe they do to some extent. They do a lot of different type of planning than some of the investor-owned utilities.

Q. Is that the main reason or the main difference, do you think?

A. I am not quite sure if I understand the

question.

Q. Well, for example, Counsel Meyer indicated that measurement at the Dalles for Washington Water Power is not practical because the Clark Fork provides 70 to 80 percent of their hydro production. And so any general figure that you would use at the Dalles, which is at the end of the stream, so to speak, wouldn't be applicable to them as far as their hydro generation?

A. It's true that the farther upstream you go from the point of measurement the less correlation there's likely to be.

Q. And Mr. Schoenbeck indicated that Bonneville and the Power counsel used that or agreed, and they recommend to the California Energy Commission, that they use the 102 years of data or whatever it is in their activities, and I am trying to determine if Pacific Corp -- you don't have a lot of hydro in Utah, in the Utah division?

A. It is a minor part of our --

Q. You got transmission down there but you don't have any --

A. This is true.

Q. You also have some transmission up here but I won't go into that. So does the interests of

Pacific Corp, are they more -- are they better served

by using data accumulated at the Dalles or at some other point on the Columbia system?

A. The most reliable and accurate data for the mid Columbia would be the data simulated by the hydro regulations. There are actually I think three regulators used in the region now. All of them give similar results. The data outside that period of record for which there are not detailed records in that there are not many points on the river to keep track of -- it's less reliable from the standpoint that it has to be used through a correlation process. And in terms of being the most accurate and giving the best estimate of future generation, the further upstream you go the less accurate that correlation will be. Did I understand your question?

Q. Well, the last statement kind of confused me. It didn't confuse me, it's absolutely right, the further upstream you go, the stream flow is obviously substantially different than it is at the outfall of the river. But my question was does Pacific Corp for its interests prefer data collected at the Dalles or at some other point on the river?

A. In the interest of being consistent among all the jurisdictions, modifying the generation

received from mid Columbia plants and weighting that by the extended period of record is acceptable. It's not a lot different from using the 50-year average at this point in time. And we think it's reasonable. Using the 50 years of record at that point on the Dalles we think would also be reasonable.

Q. Would using 75 years be reasonable?

A. I don't think so, only from the standpoint of really it doesn't make sense to exclude selected parts of data without a good reason. There is some major differences between data collected prior to 1929 and data collected after that. But to use part of any period of record probably is not reasonable without a specific reason.

Q. And the specific reason why 50 years is okay and 75 years is not okay and 40 years is not okay is what?

A. The 50 years is the regulated stream flow -- regulated in the sense of being theoretical, the computerized simulation of the watershed. 40 years selects a piece of the 50 that are available with that level of quality and then therefore excludes 10 years as being somehow abnormal or irrelevant. And then going outside that period I would say the next appropriate level would be to move from 1929 and

forward to the most current records of stream flow for correlation, so that would be a period of, I think, 64 years right today and then the next point beyond that would be to extend it as far back, at least for generation that is well correlated with stream flow at the Dalles to the period 1978, '79.

Q. You would agree, would you not that for the purpose for which it's used that the more data one has the better off one is, as opposed to lesser data?

A. Yes, I would agree with that.

Q. Is 75 years of data more than 60 years of data?

A. Yes, it is.

Q. Thank you.

EXAMINATION

BY COMMISSIONER HEMSTAD:

Q. Following up on the answer to the question from Chairman Nelson, I believe you stated that you have regulatory needs in seven states and six of the seven are consistent and Washington is not?

A. That is correct. Assuming the imposition -- bad choice of words -- of 40 years of hydro data.

Q. So were we to adopt 40 years, that would be

the inconsistency?

A. That would be the inconsistency.

Q. I think you also said that Pacific applies different standards in your different watersheds?

A. We do. The different standards are consistent with the quantity and the quality of the data available in those watersheds. For instance, it would obviously not be appropriate to apply some correlation with the Dalles to hydro in Utah.

Q. Right. So you believe Pacific is applying the best data available in each of the watersheds even though they can be quite different types of data?

A. Yes, I do believe we are.

COMMISSIONER HEMSTAD: No further questions.

EXAMINATION

BY JUDGE HAENLE:

Q. Do you know when 40 years was first used for Puget?

A. No, I don't.

Q. Do you know if it was sometime in the mid 70's?

A. I don't know.

Q. Do you know when the 40 years information

was first available?

A. No, I don't know that either.

JUDGE HAENLE: Thank you. Any redirect?

REDIRECT EXAMINATION

BY MR. PAINE:

Q. I would like to clarify, again, definitions of stream flow, if you will. There was some discussion about regulated hydro generation, do you recall that, or regulated hydro. Is that not the end product of a model, of a simulation of stream flow?

A. When I used the term "regulated hydro" that is what I had been referring to, is the output of a hydro regulation model. I believe in some cases regulated hydro would reflect the observed or measured values at a project or on a river that is regulated.

Q. And the end product that everyone is looking at is how much expected power would come out of that facility. That in turn is based on how much stream flow affects the ability to obtain power out of that facility, but it is facility-specific when it is iffy or when they annualize the data; is that correct?

A. I believe so.

MR. TROTTER: Your Honor, this is unabashed leading of the witness. This witness appears to

understand the subject matter. Ask for a new question.

MR. PAINE: I would like to clarify the record with regard to what we're talking about with regard to stream flow.

JUDGE HAENLE: Go ahead.

Q. That is the end product of the model.

COMMISSIONER CASAD: Stop there so we can define some terms. You indicated it's done by facility. What do you mean by "facility."

MR. PAINE: Hydroelectric facility.

COMMISSIONER CASAD: So it's facility-specific. Each main stream dam is looked at facility-specific, is that what you're saying?

MR. PAINE: It looks at the output in the stream flow this model produces such as each facility; is that correct?

A. That is correct.

Q. You explained to Mr. Van Nostrand what modified stream flow replicated, did you not?

A. Yes, I did.

Q. There has to be, I would assume, a prior step in the model before you could take into consideration depletions and you have no dams -- first of all, modified took depletions out of the stream

flow data for the river system; is that correct?

A. I think that's what I said.

Q. What are depletions?

A. Depletions would be water that's removed from the river permanently, would be for instance irrigation depletions, municipal for drinking water and et cetera.

Q. But that was applied to data that assumed no dams on the system, isn't that what you said to Mr. Van Nostrand?

A. That is correct.

Q. What is that stream flow data called?

A. That is normally referred to as natural flows.

Q. Is that the basis for the model?

A. I believe that the modified stream flows are the basis for the hydro regulation models.

Q. Thank you.

MR. PAINE: That's all I have.

JUDGE HAENLE: Anything more of the witness?

MR. ADAMS: Yes.

COMMISSIONER CASAD: I've got a lot more of counsel, but I won't ask.

JUDGE HAENLE: Mr. Adams?

RECROSS-EXAMINATION

BY MR. ADAMS:

Q. Following up. There has been no natural flows, natural in the true non-dam sense since when, 1942?

A. I think it's that time period, not sure of the exact date.

Q. Pardon my phraseology there. So anything going back to what free flow of the river is computer simulation at this point; is that correct?

A. I don't know if it's a simulation or some other kind of simulation but it is an adjustment for to the measured values.

Q. There's no way of actually measuring it on site is there?

A. Correct.

Q. Same is true with things like -- you used the words deletion, irrigation withdrawals, municipal withdrawings that didn't exist 100 years ago obviously have to be modeled somehow in the computer?

A. Yes, that's correct.

Q. We don't have any natural flows left that aren't the subject of some model on the Columbia, do we?

A. That is correct.

Q. So no matter what we talk about here we're talking about adjustment of one form or another to a preexisting condition that no longer exists, in other words the river does not flow the way it did 100 years ago?

A. Yes, that's correct.

Q. I was unclear from one response you gave concerning Washington treatment of your -- of normalization. And I think you said you use, and I didn't know whether when you say you "use" whether that is what the Commission ordered or what you are using which may not be subject to an order of the Commission. Could you clarify that?

A. In cause No. U-86-02 the Commission ordered Pacific Corp when it came in for its next general filing to provide data related using the 40-year rolling average methodology.

Q. And so that is the order of this Commission at this point to Pacific Power and Light?

A. Yes, that's correct.

Q. What you described was not consistent with that 40-year order, was it? In other words what you described is how you actually do it?

A. What I described is Pacific's preferred way

of handling its hydro generation and the way it is --

would be brought into a general rate case in any of our other six jurisdictions.

Q. But because you have not been back in front of this Commission since U-86-02 with normalized information you have never provided a 40-year study to this Commission; is that correct?

A. Yes.

JUDGE HAENLE: Anything more of the witness?

Thank you. You may step down. May I suggest we take our afternoon recess at this time then come back for the remaining witness.

(Recess.)

JUDGE HAENLE: Let's be back on the record after our afternoon recess. The witness for the Washington Water Power Company has now assumed the stand. Would you raise your right hand, sir. I have also marked two documents for identification as follows:

Marked as Exhibit T-807 is a 15-page document. In the front it has KOM-T and 808 for identification is a four-page document. In the upper right-hand corner it has KOM-2. And I understand you are withdrawing what had been prefiled as KON-1;

is that right, Mr. Meyer?

MR. MEYER: Correct.

JUDGE HAENLE: Take only the two documents that are premarked then.

(Marked Exhibits T-807 and 808.)

Whereupon,

KELLY NORWOOD,

having been first duly sworn, was called as a witness herein and was examined and testified as follows:

DIRECT EXAMINATION

BY MR. MEYER:

Q. For the record, please state your name and business address?

A. My name is Kelly O. Norwood. My business address is East 1411 Mission Avenue, Spokane Washington.

Q. By whom are you employed and what is your title?

A. Employed by Washington Water Power Company. My title is currently senior rate accountant.

Q. As such, what your responsibilities?

A. Responsibilities at this time involve coordination of the company's involvement in the demand-side management issues group dealing with some

of the issues that came out of our demand-side

management filings.

Q. Have you caused to be prepared and prefiled testimony that has been marked for identification as Exhibit T-807?

A. Yes.

Q. Do you have changes to make to that prefiled testimony?

A. Yes.

Q. Please do so.

A. First one is on page 2, line 21. The word "three" should be changed to "four" meetings.

On page 3, beginning with line 1 after where it says three IOUs, put a period there and strike the text beginning with "and has" down through line 11. That completes my changes.

Q. So, Mr. Norwood, your answer then would continue -- well, the question was back on the previous page, page 2, line 10, "please discuss the recent meetings, et cetera, the answer then would continue all the way through to line 15 of page 3?

A. That is correct. And the reason for this change is that this single-page document that I provided has been since superseded and there has not yet been agreement on this document. It's still in

draft form.

JUDGE HAENLE: Let me be sure I have this correct, Mr. Norwood. The portion of your answer on page 3, lines 12 through 15, is that still in or is that out?

THE WITNESS: That is in.

JUDGE HAENLE: All right, thank you.

Q. Do you have any other corrections to make to your direct testimony?

A. No, I do not.

Q. Do you have any changes to your prefiled Exhibit 808?

A. No.

Q. If I were to ask you the questions that appear in your prefiled direct testimony, would your answers be the same with those corrections having been noted?

A. Yes.

Q. And likewise, is the information contained within Exhibit 808 true and correct to the best of your knowledge?

A. Yes.

MR. MEYER: With that, your Honor, I move for the admission of Exhibits T-807 and 808.

JUDGE HAENLE: Any objection, Mr. Van

Nostrand?

MR. VAN NOSTRAND: No, your Honor.

MR. TROTTER: No objection.

MR. ADAMS: No objection.

JUDGE HAENLE: Objection from an intervenor?

MR. TRINCHERO: No, your Honor.

JUDGE HAENLE: T-807 and 808 then will be entered into the record.

(Admitted Exhibit T-807 and 808.)

CROSS-EXAMINATION

BY MR. VAN NOSTRAND:

Q. Good afternoon, Mr. Norwood.

A. Good afternoon.

Q. Your testimony concerns the issues of stream flow normalization methods to be used for rate making purposes; is that correct?

A. Yes, sir.

Q. I would like to focus on the statement you make on page 9, line 6 through 8 in your testimony where you refer to a rolling 40-year average must be consistently applied for a long period of time in order for the lower cumulative error to occur. Do you see that?

A. Yes.

Q. What do you mean by a very long period of time?

A. A little bit later on in my testimony I discuss that a little bit and what I said later on was that it would appear that we need to be in place for at least another 30 years in order for that offset to occur.

Q. At another point in your testimony on page 10 you refer to changes in the timing and usability of stream flow, could you describe how these changes affect whether or not a 40-year rolling average is appropriate?

A. Yes. With the rolling 40-year average methodology and the lower cumulative error that is claimed to be achieved the only way that that is achieved is you have consistency in use of the methodology which we just talked about. The other thing that's important that happened is that you need to have same types of conditions exist over that period of time. As an example, here we talked about changes in usability of stream flow, such as fish mitigation. To the extent that you have different type of regulation or changed operating conditions you may not see the offset occur in future years because

you don't have the same set of conditions existing.

Maybe a more clear example of changed conditions would be the termination of a contract. For Water Power, for example, we have a contract with the Chelan PUD where we take the output of that project and that contract will terminate in 1995. And so to the extent that we're relying on some estimates to offset each other over time if that project disappears then that offset cannot occur and you cannot have that cumulative -- that reduced cumulative error happen.

The same is true with our mid Columbia projects where we participate. Those contracts are set to terminate a little bit after the turn of the century, and although we hope to extend those contracts they may not be extended and so therefore that generation may not be there to allow this offset to occur.

Q. Your testimony also refers to fish mitigation measures on I believe page 10, line 12. What do you mean when you refer to fish mitigation measures?

A. Fish mitigation refers to a change in the way the reservoirs are operated, which will cause a change in the timing possibly of the stream flow. In other words, the movement is toward a reduced amount

of generation in the winter months when the loads are

highest and saving some of that stream flow to happen during the spring months, like in May or June. What it represents is a change in the timing of stream flow. That certainly hasn't -- that's an issue right now that's been dealt with in the Northwest region.

Q. Are you familiar with the biological opinion recently issued by the National Marine Fisheries Services?

A. No, I am not familiar with that. I've heard about it but I don't know that much about it.

Q. Your testimony on page 12 refers to hydro conditions in recent years as rivaling those which occurred on or around the critical period; is that correct?

A. Yes.

Q. Have you performed any studies which compare the hydro conditions in recent years to those during the critical period of 28 to 32?

A. I think this can best be -- I have compared those. I think it can best be seen by looking at my Exhibit KON-2 which is Exhibit 808. And if you will look at that exhibit, I think it shows or explains, illustrates what I am talking about. If you look at page 1 of Exhibit KON-2, what I've done on this chart

is to plot or chart the natural flow at the Dalles as a percentage of the mean over the period -- or percentage of the average over the period 1879 to 1992. So if you take an example, 1992 you can see that the stream flow at the Dalles was approximately 25 percent of the average over that period of time. What you can see also in this graph in response to your question is that during the period 1987, 1988 you can see that the stream flow during that period and even in 1992 was comparable to the stream flow that we experienced during the late 20's, early 30's.

COMMISSIONER CASAD: I'm sorry. '92 or '91?

THE WITNESS: 1991 is the last number shown and looks like every fourth number is printed. So the bar after 1991 is 1992.

COMMISSIONER CASAD: There is no bar after 1991.

THE WITNESS: I think there is one bar there. There's one more space there.

COMMISSIONER CASAD: I see.

MR. VAN NOSTRAND: I have no further questions, your Honor.

JUDGE HAENLE: Have you questions, Mr. Trotter?

MR. TROTTER: Yes, I do.

CROSS-EXAMINATION

BY MR. TROTTER:

Q. Mr. Norwood, with respect to termination of the contracts, it's possible that those will be extended?

A. Yes, that is possible.

Q. Is it possible that they could be extended on terms more favorable than today?

A. That is possible.

Q. Would you turn to page 3 of your testimony. And on line 25 and continued on to the next page you state that company, that is Water Power, is not aware of any studies which provide conclusive evidence that there are trends or cycles in stream flow data. Do you see that?

A. Yes, I do.

Q. Did Water Power participate in prior hearings for Puget in which the period of stream flow records used in normalizing the power supply expenses was at issue?

A. Are you talking about all prior proceedings or the most recent proceeding?

Q. Any prior rate hearing for Puget.

A. I am not sure, but I was not involved

myself.

Q. Are you aware that WICFUR in a prior Puget rate case sponsored testimony and supporting analyses of experts as to the existence of nonrandom patterns in historical stream flow data?

A. I am aware that I believe it was Mr. Carter had sponsored some testimony regarding that.

Q. And have you analyzed that data?

A. I have not personally, no.

Q. So when you say that the company is not aware of any studies which provide conclusive evidence that there are trends or cycles in stream flow data, that testimony was not based on any evaluation of Mr. Carter's testimony?

A. No. My statement is based on other studies that have been done, conclusions that have been reached by other individuals. There have been many studies that have been done which conclude that there is not convincing evidence that there are trends or cycles.

Q. I am focusing on Mr. Carter's, and you haven't analyzed that?

A. That is correct.

Q. So if you haven't analyzed it, you haven't

rejected the validity of his study or you don't have

an opinion one way or the other?

A. I have not analyzed his testimony, no.

Q. Turn to Exhibit 808, page 2. And this graphs a five-year average of natural inflow at the Dalles; is that right?

A. Yes.

Q. And starting with 1881 we see eight executive years above the average, three below, twelve above, then a series of intervening years and then in 1921 we see 26 years below, 15 years above, some intervening years, 8 eight above, 7 below, and then six below average. Is that a fair reading of this chart?

A. I haven't counted them but I accept the representation.

Q. Have you developed any statistical analysis to show the likelihood that random numbers from a stationary population could produce this pattern of long periods above average and below average as demonstrated on this exhibit?

A. I have not, but others have.

Q. And who are those others?

A. Mr. Wendell Tangborn sponsored testimony in Puget's last case and in his testimony -- by the way,

Mr. Tangborn is a hydrologist with 30 years of

experience. He spent 20 years with the Corps of Engineers, and in his testimony he stated that there has been considerable research as to whether predictable climate cycles exist. No one to my knowledge has come up with irrefutable evidence that they do. If there were predictable cycles we would be able to reliably forecast the weather for several years which of course we cannot do.

Q. Did he do a statistical analysis of these data?

A. I did not analyze what he did.

Q. And he adopted a standard that no one has provided irrefutable evidence?

A. That's what he stated in his testimony.

Q. You don't know whether he did a statistical analysis of this particular data?

A. Mr. Hoff, I believe in that same case, did some statistical analysis.

Q. What was the R squared or any other statistical measure of correlation that was developed?

A. That is included in his exhibit. His conclusion was there are no trends and cycles.

Q. Do you have a specific statistical measure that he used?

A. I don't have it here, no.

Q. But let's be clear, you're relying on Mr. Hoff from the last Puget case?

A. That is correct.

Q. Back to your testimony on page 6 item 2 beginning on line 1. You state that there is a high probability that this will not occur and that the intended lowered error will not be achieved. Do you see that?

A. Yes, I do.

Q. And by high probability that this will not occur, you are referring to consistent application of the rolling 40-year average methodology?

A. That is correct.

Q. The Commission controls whether or not the methodology is applied consistently in the future; is that right?

A. That is correct.

Q. In effect aren't you arguing that we shouldn't use the 40-year method because there's a good chance that your company or another utility will finally wear down the Commission and get them to reverse their 40-year policy?

A. Our concern is that what the 40-year rolling average methodology does is it requires a

commitment to the same methodology over a very long period of time. There are conditions -- conditions can change a lot over time, and our concern is that there may be a reason to change to a different methodology apart from the utility's arguments at some point in the future.

Q. So you weren't -- in your testimony here you weren't referring to the high probability that this will not occur was not reflective of what utilities might prove to the Commission?

A. It refers to the requirement to have a commitment.

Q. But the probability that that commitment would not occur is irrespective of the fact that the utility will be the one urging the change?

A. Yes.

Q. Are you aware that when the Commission has ordered Water Power, Pacific Corp and Puget to use a 40-year rolling average in prior rate filings to normalize power supply expenses that it had the testimony before it from Mr. Winterfeld?

A. Yes.

Q. And that demonstrated -- he was demonstrating that the cumulative error of a random process would be lower using a 40-year rolling average

only after a period of 10 to 20 years. Do you recall

that was his position?

A. I remember he stated that would cause a lower cumulative error over the long term. I don't recall whether he mentioned 10 or 15 years.

Q. Turn to page 11 of your testimony. On lines 8 through 13 you indicate that the intended lower cumulative error in the long term likely will not be achieved due to the required regulatory commitments which would have to be made. Do you see that?

A. Yes, I do.

Q. Are you suggesting that the Commission in its prior orders adopted the 40-year methodology without considering its ability to absolutely commit future Commissions?

A. I guess I am not expressing an opinion about what was considered at the time that the 40-year was adopted. I am expressing my concern about will this methodology be consistently applied for a long period of time.

Q. So do you have an opinion whether that issue of long term compliance was not available for consideration by the Commission in those prior orders?

A. I don't recall at this time whether that

was specifically identified or not.

Q. Page 6 of your testimony, lines 6 through 10. You assert that the rolling 40-year average methodology provides a less reliable estimate of the average. Do you see that?

A. Yes, I do.

Q. And your conclusion is based on annual stream flow being a random stationary process; is that correct?

A. Yes.

Q. Let's look at the other side of your conclusion. If annual stream flows emanate from physical climate --

A. I'm sorry, where are you at?

Q. I'm just asking you a question.

A. Sorry, go ahead.

Q. If annual stream flows emanate from physical climatological process that are neither random nor stationary, your conclusion as to the 40-year rolling average providing a less reliable estimate would not necessarily hold; is that correct?

A. You will have to read that again.

Q. Started by your prior answer indicating that your conclusion on page 6 was based on -- your position on page 6 was based on your conclusion that

annual stream flow was a random stationary process.

A. Yes.

Q. Let's look to the flip side of that. If stream flows emanate from physical and climate process that are not random and are not stationary, your conclusion as to the 40-year rolling average providing a less reliable estimate would not necessarily hold, would it?

A. I think it still could.

Q. So if your conclusion is based on annual stream flows being a random stationary process, then if that basis is taken away you still win?

A. No. What I am saying is that if there are cycles or trends in the data as opposed to being random, then a predictive methodology which would predict where those stream flows would fall would be the preferred methodology.

Q. But based on the pattern that is shown, the 40-year average might provide a more reliable method?

A. No, I don't believe that.

Q. It would depend on the analysis, wouldn't it?

A. What would depend on the analysis?

Q. I will move on. If we assume that annual stream flow is purely a random quantity, what is the

degree to which a 40-year sample is less reliable than

a 50-year sample? Is it 5 percent, 10 percent, 40 percent?

A. I don't know the answer to that.

Q. You've done no analysis of that?

A. I know that there is -- the difference for Water Power is in the neighborhood of one and a half to $2 million in dollar terms.

Q. How was that derived?

A. That's derived based on the difference of running our model using the 40-year study versus the 50.

Q. That's just the difference in the data between a 40-year sample and a 50-year sample?

A. Yes.

Q. I asked you to what degree a 40-year sample is less reliable than a 50-year sample, not what results?

A. I can't answer that question. I don't know.

Q. You haven't done that analysis?

A. I have not.

Q. Have you reviewed the testimony of Mr. Blackman in this proceeding?

A. Yes, I have.

Q. And is it fair to say to state in general terms that he is asserting that there is a pattern to annual stream flows?

A. Yes. If I remember correctly.

Q. Is it your understanding that he is attempting to refute the assumption that annual stream flows are random stationary process?

A. Yes, that's correct.

Q. Even if you don't find his analyses conclusive, is it your position that his analysis needs to be conclusive beyond any doubt given that in the alternative 50 years or 60 years of stream flow data may only marginally be better than 40 years of data?

A. I guess I would like to make two responses to that. One, your question earlier, which you just alluded to about whether 50 years provides a greater -- better estimate than 40, in his testimony he did make the statement that there is very -- confident interval is little gained by going to 50 years. But in his testimony he stated that if we use 40 observations having the same mean and standard deviation, then the confident interval for the average would be plus or minus 4.02 compared to 4. So what he's saying is that you you don't gain much but the

assumption is that the mean and the standard deviation are the same. If the mean and the standard deviation were the same for this issue, we wouldn't have an issue. The issue is that the mean is different and that that's the reason that we're before this Commission debating this issue.

Q. By "him," who did you mean?

A. Mr. Blackmon.

Q. Your Exhibit 808 shows data back to 1881, is that right, or 1879, I guess it is; is that correct?

A. Which page are you on?

Q. Page 2.

A. Yes, it's from 1879 through 1992.

Q. And in your testimony you indicate that calculating an average using a larger sample of years is better, that is more reliable, than using a smaller sample; is that right?

A. Yes.

Q. Do you agree with the proposition that the 113-year data properly mapped may be a reasonable balance between sample size and sample data quality?

A. For some hydro projects that may be true. As has already been pointed out in this proceeding for Water Power where we have the major portion of our

generation on the Clark Fork-Spokane Rivers, correlation may not be enough of that appropriate set of data to use for Water Power.

Q. What about for the Dalles or mid Columbia?

A. We also have some concerns about that in that you have the Snake River which flows into the Columbia in between the mid Columbia projects and the Dalles.

Q. I notice this was on the exhibit that was not offered. Did you recognize that, my statement about the 113-year data was from that exhibit?

A. Yes, I did. As was pointed out that is still in draft form and there was not agreement on all of those issues.

Q. I just want to know if you agreed and I take it the answer is you don't?

A. As I've stated it may be appropriate for some projects to use that amount of data. At the Dalles that data is available.

MR. TROTTER: Nothing further, thank you.

MR. TRINCHERO: Just one question.

CROSS-EXAMINATION

BY MR. TRINCHERO:

Q. Following up on the last line of

questioning, would you accept subject to check that in

Mr. Schoenbeck's analysis of Puget's filing he only used the extended water years period for the estimation of power generation from the mid Columbia projects and not from Puget's hydro resources that are not on the Columbia River?

A. I guess I can accept that subject to check. I know that he stated in his testimony that he would apply it to the mid Columbia project.

MR. TRINCHERO: No further questions.

JUDGE HAENLE: Good job. Mr. Paine, have you questions?

MR. PAINE: No questions. Thank you.

JUDGE HAENLE: Mr. Adams?

CROSS-EXAMINATION

BY MR. ADAMS:

Q. Mr. Norwood, directing you first to page 2 of your testimony, line 13 and and there you refer to the meetings held between Puget company, Pacific Corp and several other parties?

A. Yes.

Q. Now, when was the first meeting of this group held?

A. I was afraid you were going to ask that

question. I don't recall what the dates were.

Q. Wouldn't you agree it was in January of this year?

A. That sounds right.

Q. Do you know when the fifth supplemental order on reconsideration which you quote from at lines 18 through 20 was issued and if not would you accept subject to check March 30, 1990?

A. I will accept that subject to check.

Q. Do you suppose that the Commission in issuing that directive that you refer to in your testimony was attempting to get the three investor-owned utilities to evaluate this issue of hydro normalization outside of a rate case setting?

A. Yes.

Q. Do you have any idea why it took almost three years for the utilities to convene the first meeting and why it was only convened after Puget had already filed its general rate case using a 50-year water average?

A. I don't know, I can't respond.

Q. Now, you had prefiled -- had a prefiled exhibit, KON-1, which was withdrawn?

A. Yes.

Q. And that was a draft which I gather was in

circulation at the time you prepared your testimony?

A. Yes.

Q. Am I not correct that subsequent to that testimony there's been another draft circulated among the drafts?

A. Yes.

Q. And that draft includes, do you not agree, that, and I quote, "given the uncertainties identified above, the collaborative group could not reach consensus on how the WUTC should incorporate hydro generation into rates at this time." Would you agree with that?

A. Yes, I would.

Q. And that draft further comments, does it not, that if a rolling average is used and A, there is a trend or cycle, then the method is reasonable, correct?

A. Would you restate.

Q. Yes, and I am quoting from the document and be glad to show it to you. If a rolling average is used and, A, there is a trend or cycle, then the method is reasonable?

A. That's one point that I guess I had some trouble with.

Q. I'm just asking first of all whether the

document states that, not what your opinion about it is?

A. Yes, that's right.

Q. Then it goes on to say if a rolling average is used, and B, there is no trend or cycle then some valuable strategical information is lost. Is that part of the draft as well?

A. Yes.

Q. Relating to the cumulative average, the draft also states as follows, if a cumulative average is used and A, there is no trend or cycle then the method is reasonable?

A. Yes.

Q. And B, if an accumulate average is used and then there is a trend or cycle, then the prediction may be biased, correct?

A. Yes.

Q. Now, I gather the parties didn't, if you will, come up with one of these methods? There was disagreement as to what ultimately should be recommended; is that correct?

A. Yes.

Q. Now, would you turn to page 5 of your testimony, lines 21 and 22 what do you mean by the term favorable and unfavorable hydro conditions?

A. Favorable hydro conditions would refer to,

I guess in simplistic terms a lot of water coming down the river. Unfavorable would be poor water conditions.

Q. Do you define unfavorable to mean less than the mean or the average over the 114 years?

A. That is not my definition. To the extent that favorable would be greater than the average, then, yes, it would be greater than the average, favorable.

Q. Now I am confused. So favorable is better than the 114-year average and unfavorable is less than the 114-year average?

A. As for purposes of this graph or the chart that I prepared, then that would be true.

Q. Is it correct that you have -- you are implicitly defining normal hydro to be the same as average hydro over the long run such as this 114 year period?

A. No. What I am doing is using this 114 years of data to illustrate the variability of hydro over that time. If there are no trends or cycles then that would be a reasonable estimate of the average.

Q. How do you define normal hydro?

A. Normal, I am defining it as average.

Q. And is average 114-year average?

A. For this chart I am using averages of 114, but our position is that we ought to be using the 50 years of data for average for rate making and that is due to the availability of data for Water Power's specific projects.

Q. Sort of as a bottom line question, your answer there prompts me to ask you, would you rather not be treated the same as Puget or Pacific Corp in terms of how you normalize your water? In other words, would you just as soon have it done individually for each company?

A. Well, there may be reasons to do it differently for each company. What we are interested in is the best method that is reasonable for Water Power.

Q. I understand that and along those lines do you believe each company should be looked at individually for coming up with a best method for each company?

A. Yes.

Q. In your opinion, is the purpose of the hydro normalization to calculate the average hydro conditions over the past 114 years or is it to estimate the average hydro conditions that are likely

to prevail on the upcoming year?

A. Normalization should provide the best estimate of power costs the company is going to experience during the period that rates are going to be in effect. So it would be for the upcoming years.

Q. In your opinion, that's the 50-year average?

A. For Water Power, that's correct.

Q. Do you express any opinion for Puget?

A. No, I don't.

Q. At page 8, line 20 you state that the 40-year average currently being used is not representative of average stream flow conditions. Do you see that reference?

A. What line is that on?

Q. Line 20.

A. Yes, I see that.

Q. By average stream flow conditions, do you again mean the average over the 114-year period going from 1879?

A. What I've done on this chart is use that data to provide an indication of where these averages fall, and, yes, I have used the 114-year average, and the 40-year average does fall above the average, the 114-year average.

Q. Is it correct that your statement at page 8

lines 19 through 23 implicitly assumes that the 114-year average stream flow conditions and the expected rate year stream flow conditions are identical?

A. No, I am not saying that at all.

Q. Why are you not saying that? It seems to me that's a reading of your testimony.

A. No. My testimony on page 8, perhaps we can go back to the exhibit and I can explain to you what I am saying there on page 8. Go back to my exhibit KON-2, on page 2. What I am saying on page 8 is that the selected 40-year period does not include a representative amount of poor stream flow conditions, and I've drawn the lines on page 2 so that you can see the selected period of 1939 to 1978 includes all of the favorable hydro conditions from the late 40's to the late 70's, but only a small portion of the poor water conditions experienced during the 20's and 30's.

Q. At the top of those pages, all of these pages, it refers to natural inflow at the Dalles. Do you see that?

A. Yes.

Q. With a prior witness there was a discussion of terminology. How are you using the term natural

inflows?

A. I cannot explain the differences between the natural and the actual and the modified. I got this data from Bonneville Power was listed as natural flow and the intention of this data then is to show, then, the variability of the data over time and the tendency of the data to be positive for a large number of years and negative for other years. You had seen the same type of result using some of the other data and you can see that in Ms. Lozovoy's exhibit.

Q. So it's your statement you don't know whether depletion is reflected in these statistics?

A. No, I'm not certain.

Q. Page 9 of your testimony. You discuss whether some error that allegedly results from the 40-year rolling average would be offset in the future. Do you see that?

A. Yes, I do.

Q. Could you explain what this error is that you're referring to?

A. This error, actually originated back with a discussion of a cumulative error started back with Winterfeld's testimony back in their U-85-36 case and in that case he discussed the reduction of this long term cumulative error using the 40-year methodology

and he also explained in that testimony how the errors, both the positive recoveries, the negative errors, would offset each other over time so that at some point in the future, long term, you would end up with a lower cumulative error if you added all of those up.

Q. By error do you mean that the 40-year average is different from the 114-year average?

A. What it refers to is the difference between the estimated power costs and the actual power costs that occurs each year over time.

Q. Sort of generic question. If one bases power costs on the 50-year average water flows, would you agree that it is inconsistent to allow drought surcharges in specific dry years?

A. Not necessarily.

Q. Why not?

A. There may be other reasons why a surcharge would be approved for a company. For example, in '87, '88 and '89 Water Power went through very poor water conditions and the company did not apply for a drought surcharge and so the utility may not apply for a drought surcharge in poor water conditions and if they do it wouldn't necessarily be approved. It may be based on other factors.

Q. But if the Commission were to base costs

for any given utility on a 50-year average as you propose, and if the Commission then granted again drought surcharges due to hydro conditions in any given year, is not the company recovering more than its 50-year normalized hydro power costs?

A. In a theoretical sense, that would be true.

Q. Thank you.

MR. ADAMS: That's all I have.

JUDGE HAENLE: Commissioners, have you questions?

CHAIRMAN NELSON: Pass this time.

EXAMINATION

BY COMMISSIONER CASAD:

Q. I have been concerned that maybe we're trying to fit a Mercedes into a garage designed for a Volkswagen here, and Mr. Adams' questions kind of went to that issue. The reason that we're interested in stream flow is to aid us in establishing rates, i.e., the amount of water that flows through a generating facility results in a certain amount of generation that is sold and we attempt to arrive at the most reasonable figure to make a determination of what can be generated. Therefore, we use stream flow. And I

was interested in counsel's questions, Pacific

counsel's questions, about site-specific or facility-specific measurements. Are you familiar with that term, that process?

A. Well, in the Northwest regional model which is run to estimate the generation from each hydro project, I believe that that's what they're referring to. The regional hydro regulation model run by Bonneville or the coordinating group estimates the amount of generation from each project based on a given stream flow condition.

Q. Would it not be rational to use that kind of data and that kind of an approach for the three investor-owned utilities than the stream flow at the Dalles?

A. We believe so and that's our proposal. What our company does is we use the stream flow, which is included in the regional hydro regulation study, and that is a 50-year study, and that provides Water Power with the generation from each of our projects over that 50-year period. That study, though, does not give us information prior to 1928. So we're using all the data that's available from that regional model and Bonneville also uses that same model in the 50-year study for setting its rates.

Q. What would be a reason to not use that

methodology?

A. Good question. I guess I am not sure why we would want to use something other than that amount of data. There's a lot of work that goes into developing that 50-year study. What they do is they take that 50 years and they adjust all of that data back 50 years to reflect the existing hydro projects that we have, the current levels of irrigation that we have so that what we see in that model is the stream flow conditions that occur over time but with the current hydro projects in place and the current level of irrigation in place. So that's in our view the best data to use in modeling the expected generation of these projects. I guess I don't see a reason to use another method to estimate hydro production.

Q. Somebody else will, so I will leave it.

COMMISSIONER HEMSTAD: I don't have any questions.

JUDGE HAENLE: Commissioners, anything more?

Any redirect?

MR. MEYER: No redirect.

JUDGE HAENLE: Anything more of the Commissioners?

Thank you, sir. You may step down. I believe that completes the witnesses that we had scheduled for this afternoon. We have some 5-1/2 hours of statements for tomorrow. So we will begin then at 9:00 in the morning. We will recess until then.

(Hearing adjourned at 3:55 p.m.)