Perkins Coie

Kirstin S. Dodge
Phone: (425) 635-1407
Email: ksdodge@perkinscoie.com

The PSE Building
10885 N.E. Fourth Street, Suite 700
Bellevue, WA 98004-5579
PHONE: 425.635.1400
FAX: 425.635.2400
www.perkinscoie.com

January 4, 2005

VIA FEDERAL EXPRESS
& VIA EMAIL

Ms. Carole J. Washburn, Secretary
Washington Utilities and Transportation
Commission
1300 S. Evergreen Park Drive SW
Olympia, WA 98504

Deborah L. Cook
Continental Reporting, Inc.
500 Union Street, Suite 926
Seattle, WA 98101

Re: WUTC Docket Nos. UG-040640 et al. (consolidated)

Dear Ms. Washburn and Ms. Cook:

Enclosed please find Puget Sound Energy, Inc.'s corrections to the transcript for the hearing in the above matter, held December 13 – 16, 2004. We are enclosing both a table listing the corrections, and for your convenience, copies of each page marked with the correction.

Please contact me if you have any questions concerning these corrections.

Very truly yours,

Kirstin S. Dodge

KSD:rr

Enclosures
cc: Judge Moss
Service List

[07771-0089-000000/SL050030.205]

Hearing Transcript Corrections

PAGE	LINE	CORRECTION
124	12	Change "Kuzma" to "Kurtz"
124	14	Change "Kuzma" to "Kurtz"
159	11	Change "six" to "and"
159	19	Add "--- " between "hypothetical" and "we"
159	19	Correct "a" to "an" equity
164	2	Change "WIN" to "wind"
189	15	Change "matric" to "metric" in two places
189	17	Change "matric" to "metric"
189	18	Change "matrix" to "metrics"
189	19	Change "matrix" to "metrics"
189	20	Change "matrix" to "metrics"
189	21	Change "matric" to "metric"
190	2	Change "matric" to "metric"
193	18	Delete "a"
195	22	Change "of" to "but"
196	24	Change "limited" to "limiting"
205	3	Change "for your" to "free"
209	10	Add "risk" at end of sentence to read:"interest rate risk."
218	19	Change "it's" to "in"

PAGE	LINE	CORRECTION
305	24	Change "economatric" to "econometric"
306	6	Change "Coffman" to "Kaufmann" and "Ruita" to "Rueda"
306	12	Change "Lynn" to "Lin"
306	14	Correct to "Brackett"
321	19	Change "application" to "obligation"
442	6	Change "proud" to "power"
498	12	Change "have" to "had"
631	9	"Jarque"
634	1	"Jarque"
645	12	"t-statistics"/Change "at" to "and"
646	19	Capitalize "Chow"/delete "(ph)"
646	22	"t-statistics"
646	23	Change "than" to "but"
649	17	"Guttormsen"
652	1	Change "the" to "that"
659	10	"forecasted"
663	17	"40-year average"
663	25	Change "familiar" to "famous economist"
675	9	Change "His" to "This"
682	25	Change "meshing" to "measuring"
683	10	Should read "...not yield millions...."

PAGE	LINE	CORRECTION
717	1	Change "roll" to "rule"
717	8	Change "roll" to "rule"
718	4	Change "note" to "not"
752	21	Should read: "...of 2003. With......"
755	19	Change "trap" to "track"
757	18	Should read: ..."updated the estimate..."
757	20	Change "to" to "for"
764	12	Change "EEG" to "PEG"
766	2	Change "whether" to "when"
774	1	Change "base" to "basis"
785	21	Delete: "within the code of"
788	5	Change "PDI" to "EEI"
789	3	Change to "mark-to-market"
789	5	Change to "mark-to-market"
789	8	Change to "mark-to-market"
789	12	Change "regulating" to "regulated"
789	14	Change to "mark-to-market"
815	17	Change "in two" to "into"
841	2	Change "that" to "the"
843	16	Change "are in " to "earn"
868	14	"September 30"

PAGE	LINE	CORRECTION
877	16	"forecasted"
878	18	Change "lease" to "least"
881	2	Change "an" to "on"
901	3	Change "Baldwin" to "Valdman"
901	11	Change "valuating" to "evaluating"
902	10	Change "Baldwin" to "Valdman"
902	12	Change "and" to "of"
903	17	"trades"
903	22	Change "Baldwin" to "Valdman"
905	5	Delete one "on"
906	11	Change "are" to "have"
910	9	Change "from" to "for"
913	4	"...markets, of banks...."
916	9	Change "for" to "from"
920	9	Change "grammatically" to "thematically"
923	6	"30 percent"
924	8-10	Delete period after "transactions"/Add quotation marks around "What do you see to be the hedging benefits associated with those?"
924	14	Add "Q."
928	17	Change to "mark-to-market"
929	10	Change to "mark-to-market"

PAGE	LINE	CORRECTION
930	5	Change to "mark-to-market"
930	7	Change "purchasers" to "participants"
930	8	Delete"?" after "risk"
930	10	Change "we're" to "they"
934	4	Change "uptakes" to "uptick"
934	20	Change "fortified" to "liquified"
934	24	Change "So" to "Also"
940	9	Change "$15" to "$5.50"
941	4	Change "marking" to "marching"
941	7	"January,"/change to "mark-to-market"
941	14	Change "and" to "they"
984	7	Change "expensive" to "extensive"

Yes, sir, Mr. Cedarbaum is going to do that now.

MR. CEDARBAUM: Just quickly, Your Honor, I would note that Joelle Steward's testimony and exhibits that were prefiled in September have not been marked on your list as admitted by stipulation.

JUDGE MOSS: And they should be?

MR. CEDARBAUM: That's correct, thank you.

JUDGE MOSS: Okay, I will do that.

And have I missed any others?

Apparently not.

MR. CEDARBAUM: Mr. ~~Kuzma~~ Kurtz, I can't recall whether Mr. Higgins' testimony has been designated as admitted by stipulation, but Mr. ~~Kuzma~~ Kurtz may want to comment on that if it's not, but I would --

JUDGE MOSS: Okay, I will just check quickly, and I think it was.

Yes, that's been marked as admitted by stipulation.

(Exhibits 1, 2, 341 - 348, 388, 389, 401 - 419, and 491 - 500 were admitted by stipulation.)

JUDGE MOSS: Now as we go forward here it can be a time saving device if with respect to witnesses who are going to stand cross-examination if the parties can something which is entirely possible, of some assurance that the company would achieve the 45%. I did read Mr. Story's testimony in which he pledges to do that through certain mechanisms, but are you open to that idea? This is all based on the assumption that the 45% number is the correct one.

A. Well, let me just say Mr. ffitch alluded to it in his line of questions. We were a utility that was very, very weak in 2002, and through the help of a number of parties, including this Commission, Staff, Public Counsel, ~~six~~ and other parties, we came up with a what I would characterize as a grand settlement which this Commission approved. And that, really the whole nature of that settlement, which was why we were so interested in it, was somehow in a deliberate thoughtful process to financially raise ourselves up so that we could accomplish some things, and that's what we did. Yes, there were equity target~~s,~~ but we established a return which was hypothetical~~,~~ — we established ~~a~~ an equity target which was hypothetical, we established a PCA and a PCORC mechanism, all of which envisioned proceeding to put the utility into a healthier position.

All we are trying to do in this case is continue the process that was started at that point in time, which to me does not necessarily mean that the end announcements we have made publicly over the course of the last even several weeks, we have announced two ~~WIN~~ wind projects, cumulatively they will -- they will cost over the course of the next two plus years possibly as much as $500 Million. We have got -- we have just settled our Baker River relicensing, and again over time that will -- we expect that that will add capital costs to our business of a fairly substantial amount. Each one of these increments, the manner by which we finance them will create the opportunity to thicken our equity and do it in a way that is we think timed to get the maximum benefit for our customers and minimize the dilution to our shareholders. So there is some distinct opportunities that are fairly clearly in front of you in terms of being able to get there. Mr. Gaines' testimony is quite specific with regard to the timing of our ability to get to even a 45% equity target.

CHAIRWOMAN SHOWALTER: Okay, thank you.

COMMISSIONER HEMSTAD: I don't have any questions.

COMMISSIONER OSHIE: And I don't have any questions, thank you.

JUDGE MOSS: All right.

Before we turn to redirect, I will ask if questions from the Bench require any follow up from this, Mr. ffitch.

MR. FFITCH: All right, I will move on, Your Honor.

BY MR. FFITCH:

Q. You are aware, Mr. Valdman, aren't you, that with a business position of 5 on the Standard & Poor's bond rating, benchmarks indicate that a company with a debt to capital ratio above 65% would have a bond rating of Double B minus or below, would you agree with that?

A. Subject to check. I have no reason to disagree with you. Again, I don't have the benchmarks in front of me, so, and I don't know them by heart. I guess the other thing I would add, Mr. ffitch, is that the debt capitalization ratios you cited are but one ~~matric~~ metric. The more relevant ~~matric~~ metric, and I think you can have most any S&P or Moody's analyst confirm this, is the cash flow and interest rate coverage ~~matric~~ metric.

Q. There are a number of ~~matrix~~ metrics --

A. And this is just the financial ~~matrix,~~ metrics there are a whole series of qualitative ~~matrix~~ metrics that come into play as well, so just by isolating this one ~~matric~~ metric, and again I have no reason to doubt you, I have to confirm it, but I don't -- I don't thing it's very relevant.

Q. Right.

A. In my view.

Q. The first point I guess is that I'm only capable of asking about one ~~matris~~ metric at a time, so bear with me.

A. Okay, I will bear with you.

Q. The other, the second point is that in order to check the specific question I asked you about, Standard & Poor's benchmarks, those are shown in the Lazar exhibit that we were discussing.

A. Right, and I haven't had an opportunity. I would have loved to have reviewed it, but it wasn't listed as one of my exhibits, so I really can't speak to it on the stand, I'm sorry.

Q. All right, well, just for your assistance, I'm telling you that the guidelines in that exhibit if you want to check things so that we can get that --

A. I would prefer not checking it on the stand if that's okay.

Q. Okay, I'm going to ask you just to look at your rebuttal testimony, which is Exhibit 156, at page 4 just briefly.

JUDGE MOSS: Mr. ffitch, I have the rebuttal testimony as Exhibit 154.

MR. FFITCH: Okay, I stand corrected, Your Honor.

JUDGE MOSS: And what page?

Q. So are you telling the Commission that there are factors beyond the control of the regulator that affect the financial risk of the regulated company?

A. Yes, there's a lot beyond the control of the regulator.

Q. All right.

A. Weather, financial conditions, macroeconomic factors, gosh, we could go on all day, there are a number of them.

Q. Let's go to the next clause of the sentence that you just read. Again now we're starting on line 8 and going to line 10 of the page 4 of your rebuttal just for the record. And do you see that quote? And in that portion of the statement you state that Puget's short-term debt borrowing capacity is dwarfed by its future infrastructure needs.

A. No, that's incorrect, I say PSE's bank borrowing capacity, it's not short-term. You know, short-term can mean many things to many people, but three years I wouldn't say is short-term, medium-term.

Q. All right.

A. Short-term is generally a year and under just so we have our definitions straight.

Q. Now in Exhibit 157, which was DR-162, I will ask you to turn to that. Do you have that?

A. (Reading.)
It is no surprise then that Puget Energy is widely covered and has ten firms that publish equity research, which is the same as the average number of analysts covering the companies in the S&P utility index. Currently only three of the ten firms have a buy recommendation for Puget Energy.

Q. Now in response to a data request following up on that statement, you provided copies of all those reports and also indicated that the seven investor services that did not recommend their clients buy Puget instead recommend that their clients hold Puget, correct? And I'm referring to Exhibit 160. You can find that exhibit if you want, I have a question or two about it.

A. I will say one thing, and that is hold is a little bit of a term of art. Every brokerage house has a different term for -- you have a for buy, for sell, for hold. So again, I could flip through each of them ~~of~~ but the overall basis of the recommendation was a hold. I don't know whether those were the words they used.

Q. Okay.

A. Do you accept that?

Q. Well, you have answered the question, so.
A. Thank you.
Q. Let's ask you to turn to 160, Exhibit 160, and these are -- I'm sorry, I will let you get there.
A. Okay, I'm there.
Q. Okay, these are the current versions of the ten equity research documents that you were referring to in your testimony, right?
A. Yes.
Q. And if you could turn to page 43 of the exhibit, that's the Morgan Stanley report, it's actually also shown as the original pagination is page 7 but it's page 43 of this exhibit.
A. Right, Puget Energy balance sheet.
Q. Correct. And we see at the bottom of the page a projected capital structure for 2005 and 2006?
A. Yes.
Q. And isn't it true that Morgan Stanley projects common equity ratio for Puget of 41.9% and then 43% of total capital in 2005 and 2006?
A. It's true, but that really doesn't bear any linkage to what we plan to do for reasons that I think should be obvious, and that is we're under Rule FD limiting ~~limited~~ the amount of disclosure we could give rating agencies. So whether they say 41, 38, 43 doesn't really

the bottom of that page and on to page 10 you criticize Dr. Wilson's use of a 90-day U.S. treasury security as a proxy for the risk ~~for your~~ free rate; do you see that?

A. Yes, I do.

Q. Are you familiar with the term interest rate risk?

A. Very much so.

Q. Is it correct that if an investor buys a long-term bond there's a risk that interest rates will rise or fall, and that impacts the value of that long-term bond?

A. That is correct.

Q. Is it also correct that as the interest rate risk increases, the farther out the yield curve you go?

A. The farther out the yield curve you go, the more chance that the projections are incorrect. There's a tremendous amount of volatility at the back end of the yield curve, correct.

Q. Would you agree that a short term, that short-term debt doesn't have the same interest rate risk as long-term debt?

A. By definition that's true, but I think what I would add is the reason I objected and I continue to object to the use of the 90-day treasury security --

Q. Mr. Valdman, I'm sorry, I asked you a simple

If you want to go rate shopping and find the absolute lowest risk free rate, then my advice is go to the 90-day treasury security. If you're trying to find the appropriate rate for this type of a situation, then it's either 30-year, and I think I discussed why the 30-year to the point that you correctly made and that is there's a tremendous amount of volatility in a 30-year, you might want to go to a 10-year security which really gives you the best balance of a longer term maturity with the lowest amount of interest rate. risk

Q. Neither of the texts that you just read were recited or referenced in your testimony, were they?

A. That's correct.

MS. DODGE: Your Honor, we could offer those as rebuttal exhibits, they are directly rebutting Staff's cross exhibit, which is a new document in the case.

JUDGE MOSS: I think we have the testimony of the witness, and we won't have any supplemental rebuttal at this time.

COMMISSIONER HEMSTAD: I'm not sure the witness gave the page references.

THE WITNESS: Oh, sure, we would be happy to. For Brealey and Myers, and this is the chapter on the capital asset pricing model, it's page 161, and the appropriate treasury security.

Q. But it doesn't say that in this text, does it?

A. It does not say that in this text. In this text it says you need to step back and explore the facts. And the second text I gave you is more prescriptive in terms of what treasury to use. But it would seem to me logical that if you apply the facts to the situation that we currently face that you're looking at investments that aren't short-term investments, they're investments that last decades. In fact, I direct you to the testimony of my colleague, Sue McLain, some of the infrastructure we have in place has been around since 1917, so much longer than short term however you define short term.

Q. But this text does not discuss the duration of the treasury bill that they're using for risk?

A. No, this text points out the infirmities, in ~~it's~~ sticking slavishly to a mathematical model, and it basically says, and I'm interpreting, use judgment, examine the facts, use judgment, come up with the appropriate methodology.

MR. FFITCH: Your Honor, we would like to offer this page to be added to exhibit I believe it's 169.

Q. If you could refer to Exhibit 249C, and under the heading Pacific Economics Group cost of capital for the month of March; do you see that?

A. Yes.

Q. And if you can refer now to Exhibit 247C and turn to page 8 of that exhibit.

A. Yes.

Q. And if you look -- first let me ask you, is this document your billing statement for the month of March 2004?

A. Yes.

Q. And if you look at toward the bottom where it says fees and expenses for March 2004, and do you see that that number corresponds to Exhibit 249C for the month of March under the heading cost of capital?

A. Yes.

Q. And the people listed on this billing statement, can you tell me what role they had in the preparation of the case?

A. Yes. I was the person who was overall responsible for directing the work as well as conducting some of the analysis. Dr. Dubin in addition to working on the hydro and natural gas related issues in this case assisted me in some of the ~~economatric~~ econometric work that I was doing as part of the various analyses that I undertook of calculating DCF and peer group CAPM's and those kinds of things in my direct testimony. Mr. Long coordinated the case in terms of documents, working with the company, getting information, generally assisting me in collecting all the basic data that I used and information that I used. Dr. ~~Coffman~~ Kaufman and Dr. ~~Ruita~~ Rueda were involved in collecting information related to the regulatory environment and treatments in various states around the country that were engaged in various types of restructuring or versus traditional regulation, and they were involved in doing that work at this stage. Mr. ~~Lynn~~ Lin was my research assistant, so he did some of the data entry and number crunching that had to be done under my supervision. And Ms. Brackett was involved in preparing exhibits, cleaning up workpapers that we had that needed to be put in the form that ultimately would become testimony exhibits as opposed to the kind of rough and ready documents that we were keeping around.

Q. So in other words, all of the work that's documented on this page 8 was undertaken to prepare your cost of capital testimony?

A. Yes.

MS. DODGE: Objection, well, that's fine.

Q. And if you can look at page 9, would you agree that the number toward the bottom of the page for

Now if those numbers slide below 40 on equity percentage, 9 or 9.75 as some are proposing on ROE, then I think the company's dividend could indeed be put under pressure to be cut. Because the company even today has negative free cash flow, and that negative free cash flow means there's pressure on that dividend without rate relief, and I think that's part of what they're trying to accomplish here. And if they slide further as opposed to move forward, then I think there's a problem.

Q. In a different area, and this perhaps is somewhat off the mark in the direct sense of what this case is about, but I think your testimony makes reference to those states where vertically integrated utilities continue to be the norm and those states where we now have just aggregated vertically integrated utilities. In a state where you have a distribution of the company only, in other words where the utility has sold off its generation as typical I think in the Hoover Dam area, but there continues to be an obligation ~~application~~ of service, would that kind of utility be more risky or less risky than a vertically integrated utility that continues to have its own production?

A. I think that it's certainly more risky for the consumers in the state, because they have to deal with the volatility and uncertainty of what the price in at a time when the company was having difficulty in accessing the short-term capital markets. About the only way that it could do that in the volume it needed was to put a facility together that used the receivables as collateral. We had never done that before. Only power ~~proud~~ companies with difficulties like Avista were doing this. Avista has a similar facility to this day. Were we a better credit rating, we would not have to do this.

Q. Let's turn to Exhibit 188, Mr. Gaines, Public Counsel Data Request Three.

A. I have that.

Q. And that was a data request that asked for the embedded costs of long and short-term debt and preferred stock over the past five quarters. Do you recall that?

A. I do. I have that in front of me. Thank you.

Q. And could you please turn to page 21 of that exhibit?

A. I think it has six quarters in it, Mr. ffitch.

Q. Okay.

A. Twenty-one, did you say?

Q. I stand corrected. Page 21. And that is real aversion by regulatory bodies to go below the double digit level, i.e., to single digits. I wanted to show the Commission that there have been some regulators in the country that have done that.

Q. Did you review the Commission orders that you cite in your footnote?

A. No, I did not.

Q. Are you aware, from your work in the field, that, for example, in the Connecticut case that you cite, Connecticut Light and Power, the Commission in that case noted that Connecticut Light and Power Company ~~have~~ had reduced its operating risk by divesting itself of generation?

A. Yes, I realize some of those companies are wires companies, and I believe I gave an incorrect response to you a moment ago. One of the orders that I cite was the West Virginia water order, and I'm very familiar with that case and I have read the order in that case.

Q. Do you --

A. And although water companies are thought to generally have somewhat less risk than gas and electric companies, they are similar in risk.

Q. Do you recall, with respect to the West Virginia case, that the West Virginia Commission

A I don't know if Dr. Mariam used them or not. He didn't refer to them.

Q That's what they are. They are probability values testing normality of forward gas price data.

A I haven't been able to find the documentation that explains what those are, but they are, in fact, probability values for the Jarqu-Bera test, yes.

Q And if you look at -- again, I'm on the second page of the exhibit. The forward prices quoted for May, for the dates in May before that we discussed through July that we discussed. All but the month of October show values of less than 5 percent; is that right?

A In the probability row, yes.

Q Right. And does that mean that at a confidence level of 95 percent for the months where the value is less than 5 percent, does that mean that that confidence level of 95 percent, there's a less than 5 percent chance of occurrence that the data -- excuse me. Let me restate that.

At a confidence level of 95 percent where a value of less than 5 percent appears, that and read the paper by Jarque and Bera, I found this was a fairly nonstandard test for normality because of certain restrictions in the test.

But nevertheless -- and I had my inference from it backwards, so that's why I deleted the question and answer.

Q When you say you discovered this, you mean you walked into your office and there it was?

A I am sorry?

Q You say you discovered these workpapers. They were provided to you in response to a Data Request, weren't they?

A Well, sure. But lots of workpapers were provided in the response to Data Requests. And I pored through all of them and came across these.

MS. DODGE: Could I just object to the prior question? I think it misstated Dr. Dubin's prior answer on what he discovered.

Q BY MR. CEDARBAUM: I thought you said that you discovered these workpapers?

A I thought I discovered my error that I made.

Q I misheard you.

JUDGE MOSS: I think the record is now clear.

to remove a much broader period of time in the middle. I discovered two outliers, but Staff asked me to take out maybe a 10-month period. I can't recall.

And I did two sensitivity analyses with my statistical work. One sensitivity I did was to remove the two outliers that I discovered, December of 2000 to January 2001, where those spot prices were extraordinarily high. And the answer was, in terms of my exhibits was that the numbers changed a little bit. The key coefficients and ~~T~~ t-statistics ~~at~~ and R squareds, and all the other things I referred to in the testimony changed a little bit. But the broad conclusions I reached were exactly the same about the prediction of forward prices.

And, also, when I removed the period of time that Staff had indicated in their Data Request might be something to look at, I removed those 10 months. And I found, again -- and I prepared those tables and brought them with me if the Commission would like to see them -- they look exactly like the exhibit material to my rebuttal report. They are exactly the same format.

One removes two points in time because of outliers. And the other removes the period of time that Staff indicated in their Data Request. And, again, I concluded that the models fit almost exactly the same way with the 10-month period deleted.

Q What 10-month period is that, so we know?

A Yes. I can get that for you. Staff had asked kind of pointedly to do some tests around the period without June of 2000 through April 2001.

Now, mind you, I had discovered -- and I will use the word "discovered" again. I discovered through my statistical analysis that there were two outlier points in time, and I previously removed them to do a sensitivity. Those were December of 2000 and January of 2001.

Staff had asked, why don't you do a test, something called ~~a~~ chow ~~(ph)~~ test to remove a longer period of time. And, again, when I did that test, I produced almost identical results. I mean, coefficients and ~~T~~ t-statistics, things were minorly different ~~than~~ but my broad conclusions about how long an averaging period to use, the efficiencies of the market, whether or not there's a lot of active trading, and I can discuss that more if you like, do reflect efficiency.

Now, what I did in response to the Data Request that Mr. Cedarbaum had asked me about was I had read the paper by Mazighi called the Efficiency of Natural Gas Futures Markets that was published in a journal I never heard of called the OPEC Journal, but I still had never heard of it. But I also collected other articles and read a lot of literature and refreshed myself on the literature, including papers cited by Dr. Mariam.

And Dr. Mariam's citations were quite helpful in this regard because he cited papers, but -- I am going to give you a bunch of names that we will go through later -- Guttomsen, Chinn LeBlanc, Herbert, Bopp & Lady, Crowder, Mazighi, Brenner and Kroner, and a paper by Peroni that I found myself.

And it took awhile to sift through this literature, because the literature was a little bifurcated. Some economists were finding that the market was efficient for futures in the gas market, which would say that you could use the trap ~~the~~ that Mazighi in the journal I never heard of came through.

Q So to get back to my level of understanding, what I hear you saying is that in your view, and you think in the view of others who are respected, that there is, in fact, a tight correlation or a useful correlation between forward prices and later spot market prices -- I am just trying to get to my question.

A I am sorry. I jumped on you. Go ahead. I am very sorry.

Q But what pops into my mind is the Western Energy Crisis, when I am very aware from our direct experience that the forward prices were going through the roof, and then various events occurred, FERC actions and others things, that dropped the spot prices.

And I am wondering how that figures in. Is that sort of anomalous period that can be counted or cannot be counted, but isn't really what matters in the future, or was there still some kind of correlation? How do I fit forward prices during the Western Energy Crisis to subsequent spot market prices that were quite a bit lower, I believe?

all about, but you don't want to have too few.

But I think the answer Dr. Mariam reached is a reasonable one, and I think the Company has adopted that position as well, that a three-month average has a certain virtue to it. It's not too short or too long.

If it were longer it would incorporate stale information, and the longer we go back, the more additional adjustment up we need in the forecasted price. Three months, on the other hand, is a good compromise. And both the Company and Dr. Mariam reached the position that three months is a good average.

It's in the implementation that Dr. Mariam slipped a little bit where he excluded some periods toward the end of the year where prices were higher. And then to compensate from being farther away from the rate year, he went back farther in time. And I don't think that's quite logical.

Q So is it your view, then, that the best data is the most recent three-month period available?

A In the context in which we're speaking, I think that would be my conclusion, that the most

And apparently the powers that be haven't reached a conclusion about the sanctity of the 70-year information at this time. But from a statistical point of view, the 70-year water average confirms everything I concluded about 60.

Q If one is concerned about the issue of, over time, changing conditions, why wouldn't a rolling average that randomly drops one year and adds another year, whatever length or period of time -- why wouldn't that lead to the same result? For example, if you used a rolling 60-year average?

A Well, the first issue is that whatever kind of average that we adopt should be the result of a conclusion from a statistical study. We shouldn't just pick it at random. We shouldn't just decide that a ~~four~~ 40-year average is the right thing to do, or a 60-year average. We should conclude it from the information.

And the information at hand supports a long-run average, not grouping any beginning periods or dropping any ending periods.

That's the first point. The second point is, the technical point that I referred to by this ~~familiar~~ famous economist, Slutsky, born in 1880 and information. And I think that Dr. Mariam, in fact, had more information at his disposal.

At least according to my review of his workpapers, he had information going back at least to 1999, and chose not to use it. At least that's my understanding in following through his work.

I see no reason not to go all the way back. ~~His~~ This futures Nymex market has been studied by many researchers going back to 1990, and the relationship between futures and spot prices is a subject for analysis, using all of that information.

Now, in terms of adequacy of the period of time that Dr. Mariam employed, I'm not saying that shorter period biases his answers or anything like that.

What I am pointing out, though, is Dr. Mariam analyzed a question that was not exactly, I think, germane to the proceeding in the sense that he asked whether looking into the immediate future, let's say we're one month away from the rate year, how much averaging should we do going back? Should we go back one month, two months, three months when we're going to look one

And I don't have any idea what that calculation would look like, but you go back to 1928 -- I'm trying to figure out why 1928, when there is no hydroelectric projects on the Columbia River. So you would have to apply whatever calculations you made to river conditions at that time to derive some type of average of million acres feet average, and then combine it with your calculations to determine generation.

So there's certain -- I guess my question, going back -- you can go back to 1928, look at that when there are no hydro generation facilities on the river. Why can't you go back to 1920 or 1918, or 1900? Or is it just a function that you think the information is too soft on which to base some analysis? And if so, doesn't it form your final conclusion?

A Well, first of all, I myself did not do the generation estimation. That's done by the Company and the Company's consultants.

But I think the answer to your question is the Army Corps of Engineers, who are the people who measure for the government the flows, may not have been ~~meshing~~ measuring flows back before 1928.

All I can tell you, and maybe I'm wrong about this -- and if I am, I will be happy to amend my answer -- but my understanding is there is no water information for these rivers before 1928.

Now, with respect to the paleogeographic information, if we're talking about tree rings, or how much dinosaurs were growing, I think there is some useful information there, and that information does not ~~a~~ yield millions of acres feet of water measured in a standardized way.

I think you are correct that water on the Columbia River in the '20s, when there were no projects yet sited, receives the least adjustments. Because as we go forward in the current situation, we have to sort of take out the siting of projects and the use of water, go back to a natural water state, which is one estimation. And then we apply the current regulatory rules to that water to get some information about what the world would have looked like in flow and generation in 1928 had the plants been there in 1928.

Those are complicated calculations. But I think the fundamental problem is a lack of

They do not have rule ~~roll~~ curves based on estimates for the 60 years. Only for the 50 year.

Q So you are limited by what the Power Council has produced?

A Yes.

Q So that's the reason?

A That's the reason. As soon as they produce rule ~~roll~~ curves and estimated flows for 60 or 70 years, I have no problem of using that.

Q So if we were sitting here 20 years from now, and we all had the same kinds of information, which is probably not going to be the case, but then you would be fine with 70 in that case?

A Yes.

Q So it really does get back to the quality of the information or data that we have, that you think it is limited to 50 years, not more. And that's the reason for picking the 50?

A Yeah. The supplementary -- they call them critical curves, there are many of them. One of which is including the low hydro year in modeling. And so those are critical inputs -- have to be in the model in order for the Power Planning Council or BPA to infer the likelihood of generation that would be available to the Northwest for a year or two years down the road.

Q Do you agree with Professor Slutsky -- or I'm note sure what his title was -- that if you do have random information, it's inappropriate to have a rolling average of it?

A Yes.

Q So for looking at hydro data, it sounds to me as if you do not recommend a rolling average for reasons ala Slutsky; is that correct?

A That, and plus additional information that I may forward is in the statistic, when you test for a distribution, if you found it to be normal, there is no reason whatsoever to move away, to come up with rolling average or moving average, because you already have what is considered to be a normal solution.

So you must have other justification to smooth the data, or create something, a fabrication of the actual data. So besides the Slutsky Theorum, justifying normality implies that you don't need to go beyond that to come up with rolling average.

Q But then that leads naturally to the question about these 30-year kinds of rolling

that the Company bears the first $40 million?
A No. What they were talking about is the overall cap, and that extends beyond years. The way the mechanism works is that there's several layers, which are explained on the bottom of the page 1 of this Exhibit 235.
So the first band is the 20 million. The Company absorbs 100 percent of the first $20 million of the power cost.
And the second band, between 20 and 40, the Company absorbs 50 percent. And the third sharing band is 40 to 120 million.
And you will see there's an overall cap. It's the third bullet item on page 2 of 25. And this is what they were discussing, that ever since the inception of the PCA, the Company has absorbed $40 million. That's a cumulative amount of dollars, and it absorbed most of that in probably the 2003-2004 pricing.
Q So has the $40 million cap been met?
A It was met in the late fall of 2003, with the write-down on Tenaska, the cap was -- it went down below the cap again. And we expect to be over $40 million cap by the end of the year.
Q So is there actually a balance currently

To say that now we can set the prices anything we want, because we're at this $40 million cap, is a real error in the determining of power costs, I would say. It's -- all you are doing is deferring a very large cost to later customers.

Q But if, for instance, gas prices turned out to be substantially lower than what the base line was set at, wouldn't this potentially -- the second sharing band kick in that was a 50/50 sharing?

A Yes.

Q So doesn't that mean that once you are in at the cap, that if the price is higher, customers pick up 99 percent of that, but if it's lower, they only get 50 percent of that benefit? Doesn't that seem like an asymmetrical sharing?

A That's not the way it works. If you are over the $40 million cap, you are going to ~~trap~~ track that cap first. So if the prices were lower, anything above the $40 million that had been deferred to the customers would be reduced in the deferral.

And then you start looking at the caps. I mean, it's a two-piece process as we track the

A That's correct.

Q And can you explain for each of those three categories what the accounting treatment of those costs has been?

A Yes. Taking the PCORC first, we expense the legal costs during the time of the hearings as we had filed a petitions to have those costs deferred. But they were still an expense.

The cost associated with the 2001 case had been deferred during the proceeding, and they were -- the costs were approved at that rate -- at a certain rate for amortization. And they have been amortized at that rate since the rates became effective for both gas and electric.

And then the costs for the current case have been deferred in the same manner. And this is based on an estimate of the -- I think the rebuttal number updated the estimate as to what we think will be the cost for the total case. And we're asking for ~~to~~ the amortization of those costs over three years.

Q Okay. What happens to the unamortized balance of these costs that get -- deferred costs that get amortized?

A They are sitting in an account on the

A Yes, I have.
Q And does it accurately reflect the billings to date on this case?
A No, it doesn't.
Q And in what regard is it incorrect?
A It missed one of the invoices, so it's actually a little low.
Q Can you tell us where that fits in at?
A I can tell you the amount. I can't tell you where it fits in at. It's about $106,000.
Q And who was that an invoice from?
A ~~L~~ P EG.
Q And what month was that for?
A I just gave you all the information I have. I am sorry. I would imagine it's for one of those three months since August 25th.
Q And are there any other invoices that aren't reflected, that you have received that aren't reflected on this exhibit?
A Yes. When we sent this out it was actually based on a run that was done on 12/1, I believe. And we have since put together another Supplemental based on 12/10, which would make these costs about $700,000 higher. And I believe that's either ready to go out, or has gone out.

we speak, so we're happy to provide the supplement. It's a question of ~~whether~~ when the invoices come through and they get rolled through.

JUDGE MOSS: What would you propose? Is it for your information or part of the record?

MR. VAN CLEVE: I would like it to be part of the record, Your Honor.

JUDGE MOSS: Should we make it part of Exhibit 249, or should it be a separate exhibit?

MS. DODGE: We were prepared to object to 249, because it wasn't accurate, but we're happy to work with counsel to get an accurate 249 that we wouldn't object to, that had the summary.

JUDGE MOSS: That would include the corrections Mr. Story has testified to?

MS. DODGE: Yes.

JUDGE MOSS: Is that satisfactory?

MR. VAN CLEVE: Yes.

JUDGE MOSS: That's what we will do. And we could have that as early as tomorrow morning, or perhaps even today?

MS. DODGE: I don't think so.

JUDGE MOSS: I thought you said it might be available now?

Company to provide revised Commission ~~base~~ basis reports for electric and gas operations for 2002 and 2003 year-ending, giving effect to not only the $72 million deferred tax item, but all of the other deferred tax items that you reference in your rebuttal case.

And then you also associated working capital calculation revisions; is that correct?

A That is right.

Q And then turning to the third page of the exhibit, this is the 2003 portion of the response for the electric side of the business, right?

A That's correct.

Q And in the middle column, the bottom line -- so it's the middle of those three numbers on the bottom line, the actual results of operation giving effect to the conservation trust for 2003 produced a rate of return of 8.56 percent?

A That's correct.

Q And then on page 4, a comparable number for the gas side of the business is 7.70 percent; is that right?

A That's correct. I believe that number is wrong. I noticed on another exhibit I was are coming to date. Right.

Q I think it's already been covered, but the rate case costs to this case are currently being deferred by the Company?

A That's correct.

Q And the same is true -- that is true both for outside consultants and outside counsel costs; is that right?

A That's correct. And some services that would normally not be incurred that are also outside that wouldn't normally be called consulting or legal.

Q On page 22 of your rebuttal testimony you refer to some Commission orders in support of the Company's position to defer and amortize, versus Staff's position to normalize.

And is it the Company's position that the express language of these orders authorizes the Company to amortize and defer rate case costs?

A Well, within that order they approve the accounting that is ~~within the code of~~ amortizing those costs. And you would have to defer them to amortize them.

Q So it's your testimony that the express language of the orders in their totality in

Q And then on line 4 you reference some indications from FERC Staff. Were those indications oral indications, or anything written?

A Actually it's both. The ~~PDI~~ EEI has a liason group that meets with FERC Group Staff. We have a letter from that group explaining a meeting they had where FERC Staff expressed 182.3 is the preferred account. 186 is probably all right. If the Commission wants to approve a 186 account, they are not going to take exception to it.

Q You didn't provide any written documentation of those communications?

A I don't believe we were asked to.

Q It's your rebuttal testimony. You didn't include those documents in your rebuttal testimony?

A I didn't include a lot of documents in my rebuttal testimony that I relied on for the rebuttal.

Q And is it the Company's interpretation of FERC order 552 that the order specifically addresses the topic of deferring rate case costs?

A No. It addresses the setup of 182 accounts.

Q I am done with rate case costs. I just have a couple of remaining questions on mark~~et~~-to-market accounting, so a big change of gears here.

A I beg your pardon, mark~~et~~-to-market accounting?

Q Yes. Are you familiar with mark~~et~~-to-market accounting for the energy industry?

A Yes.

Q Is it correct that there are certain exemptions for regulat~~ing~~ed utilities from the financial and accounting standard board's mark~~et~~-to-market accounting requirements with respect to physical and financial hedges entered by the utility to serve native load?

A You are talking SAF 133?

Q I believe so, yes. Well, I guess, let me clarify. I guess I'm asking if that's -- if that's where those exemptions exist, then that's what I would like to know. I would like to know if the exemptions exist, and if they do, where they are. If you are telling me that's where they are, that's fine.

A That's kind of a difficult question. SAF same manner as one is abnormally high.

A Yeah. The numbers change year by year based on the plans. The plans, the incentive plans get modified every year. They have been very complex to having something like 600 different types or measurement components whittled on down to very few items.

For example, in 2004 has much less components, 20 something comes to mind. However, none of the components matter if the Company doesn't achieve a certain level of earnings.

Q Right. Is what we're trying to do here build into the revenue requirement a certain amount that would be used for bonuses should the conditions apply?

A Staff is recommending the level in this case of $2,096,000 ~~in two~~ into rates.

Q Why would it not -- why wouldn't an average of some sort be appropriate?

A Excuse me. I have to back up. $2 million is the level that we're at here. Then Staff recommended disallowing a portion of that that is then tied to earnings. This would be the total level of incentives that the Company would be paying.

A Okay.
Q Are you the lead auditor for ~~that~~ the case?
A On the electric side, yes. Mr. Parvinen was on the gas side.
Q In your role as auditor, are you aware that Puget Sound Energy has utility investments that do not earn a return?
A Generally, yes.
Q One example of those might be environmental costs that are associated with the gas side of the business?
A I am not exactly sure how those are being handled. I think, looking at the working capital calculations that Mr. Parvinen did for both the gas and electric side, you could look at assets that are considered regulated and earning a return, regulated not earning a return, or totally nonregulated assets.
Q And are you aware that there is some construction work in progress that is not allowed to earn AFUDC in rate base?
A There may be a timing associated with that. If a plant is under construction, it would be AFUDC. In other words, the Company would be reflecting in its income statement a return

that the Company earns is less than the authorized?

Q I am saying for just those particular investments, that type of investment.

A I'm sorry. Are you asking if some of those assets are returning a return less than the Commission has authorized, but the Commission or through the regulatory treatment those regulatory assets are earning less than they are authorized? I am not quite sure.

Q Right. Through the regulatory treatment they are earning less than is generally authorized for the Company.

A Do you have an example?

Q For example, the PGA and PCA deferrals those ~~are in~~ earn the FERC interest rate.

A They do, by rule.

Q And that rate is currently about 4.2 percent, isn't it?

A I don't know what that rate currently is.

Q Do you have an idea of the magnitude of that rate generally compared to the authorized rate of return for the Company?

A I would assume it is lower, yes.

Q Mr. Russell, I would like to turn for a

testimony, Exhibit 82?
A (Complies.) All right. I am on page 22.
Q At line 17 you say that "The Company has no reason to believe that gas prices for the rate year will move back to the levels in the Company's original filing." Is that your position here today, also?
A Yes, it is.
Q And do you believe that gas prices are trending up, or trending down, or even for the rate year at this point in time?
A They have been trending up since we filed our rebuttal testimony, which had gas prices ending September ~~13~~ 30. The market is continuing to trend up.
It is our belief that the prices will still remain in the vicinity of the prices which we filed at the end of September. They could go up some more, as they have done more recently. We do not expect them to go back to the levels that we submitted in the prefiled testimony.
Q I would like to direct your attention to Exhibit 98 C.
A Okay. I have turned to that page.
Q And this is --

101. And if you look on page 1, the Aurora cost, and on page 2 is the Aurora generation and megawatt hours, basically they added up to the numbers under the variable column in Exhibit 101. And have you verified whether these came from your spreadsheets?

A I did look at this, and this did -- I mean, the numbers appear to come from our workpapers. And the only thing I would mention is that the numbers in the section labeled Aurora Costs, the top section, on page 1 and on page 2, come from a run of Aurora using the filed gas prices, not with the updated gas prices.

And I don't know if this is going to impact where you are going. But with the new gas prices, the forecasted generation was lower. So these are workpapers using the earlier filed gas price. So it has a different generation impact.

Q But even with the new gas price, Aurora doesn't show any generation at these plants with oil, does it?

A The oil cost is an added cost to the Aurora costs. Because it's put into the budget or the base line to cover those days, those hours where we're running over what we need, what we projected for expected load.

So there's a placeholder for days when you have load that exceeds average. And we calculate those costs. There's some other costs, exchanges and transmission costs, some peaking options that are in the power cost base line to meet higher than expected load, higher than average load.

Q So why couldn't you just increase the load in Aurora, and have Aurora dispatch the most efficient resource available to serve those loads, and find the cost that way?

A I don't claim to be an expert on how Aurora is run. We have people within the Company who are very conversant with it. We have been using it to meet average load, and that's the convention that we have been pursuing in this proceeding, and in other proceedings, as well as for our ~~lease~~ least cost planning.

I don't know if we can do as you are suggesting. That's why we model it outside of Aurora, and then bundle it all together in the total power costs.

Q So this $12.75 million cost that you put into the case that's not part of Aurora, have you also put into the case additional revenues that may have the opportunity to provide that information while Ms. Ryan is yet on the stand.

JUDGE MOSS: Then maybe we can come back to this after lunch, Mr. Van Cleve, since we're about to run into the lunch hour anyway. If you have some more, I am assuming that you do --

MR. VAN CLEVE: Yes. I could turn to another subject matter, I think I can dispose of quickly.

JUDGE MOSS: Okay. And thank you, Ms. Dodge.

Q BY MR. VAN CLEVE: If you can look at Exhibit 99, please.

A (Complies.)

Q This was an ICNU Data Request 9.02, which asks for actual generation information from the -- what I refer to as the CTs for 1994 through 2004; is that correct?

A I believe so. This was a Data Request that was prepared by Phillip Popoff under the direction of Mr. Markell.

Q And I will tell you that there were voluminous generator logs that have been omitted here. And if you look at Exhibit 100, that is the Company's Supplemental Response. And we have credit rating -- I can't think of the exact term.

But Mr. Hill and Dr. Wilson, and I think Mr. ~~Baldwin,~~ Valdman all engaged in some discussion about which one is important and why. And starting with Company acquisitions of new resources, in that instance, is the senior secured -- what is the phrase, first of all?

A It's somewhat complex because the Company has a number of different ratings. The rating that counterparties will typically look at when evaluating the creditworthiness of a counterparty is a senior unsecured rating.

Q Now, when you say a counterparty, what context are you in? This is my problem. I'm imagining different kinds of activities, and I'm not sure I'm imagining the right buckets of activities.

A I can speak best to the activities of hedging risk management. And you asked me a question about the resource acquisitions, and Mr. Markell knows more about that than I do. I will do my best to answer the question.

Q Well, actually, if you want to distinguish your testimony by saying, you are not talking about those things, you are talking about the other things; is that correct? And by things, I think I mean there was a fair amount of focus on what it means to the Company when it goes out for actual acquisition of major infrastructure. So maybe what we can do is not talk about that category.

Let's talk about the other categories. I did take most of your testimony to be focused on those other categories. Am I right so far?

A That's right. Mr. ~~Baldwin~~ Valdman and Mr. Gaines and Mr. Markell overlap in terms of addressing the credit challenges ~~and~~ of financing acquisitions. And my testimony focuses on the issues associated with risk management, entering into transactions for hedging purposes.

Q And just so we fill it all out, hedging what?

A Oh, because we're deficit resources in comparison to our load requirements, we're a net buyer of energy. We're buying gas. We're buying power, oil. And we operate in a wholesale market with other companies who have energy to sell, because we're usually a buyer.

And in that environment, companies are very careful about how much exposure they will take on with one another. So when you enter into a transaction with a counterparty, not only are you concerned about the price and the delivery terms, and the contract, but you are also concerned about their ability to perform.

So the industry develops assessments -- let me say that differently. Each of us in the industry look at credit risk management, and we look at each individual counterparty, and make a determination of how much exposure or risk we're willing to have with that counterparty.

Q Now, first of all, when you are talking about trading partners, are you talking about both short-term and longer-term transactions? Tell me the environment of trade that you are referring to.

A I am referring to trades that could go from a short time frame of next month, or next week, out to a longer time frame of five or 10 years. So these would be gas purchase contracts, power purchase contracts as opposed to an acquisition.

Q And now, Mr. Valdman ~~Baldwin~~ in response to a question, said that if you -- let's say PSE has a higher credit rating. You would not necessarily want to do business with someone with a lower with like; that is, your bargaining power would make it difficult to trade with someone much higher. At least that higher person will look around for a better partner; is that correct?

A You are right on ~~on~~ the second thought there, that given a choice, an A rated counterparty would prefer to transact with somebody that had a stronger credit rating than a company that had a weaker one.

In the same token, and here's where it becomes difficult for us, we have to be cognizant of our counterparty. So if we're looking at a BBB minus company that has the same corporate credit rating that we have, we don't want to take on a huge amount of risk with that company, because they are only barely at investment grade.

So it's more wise of us to also be careful about credit exposure to counterparties, depending upon their financial strength. It's a way to mitigate the risk of the nonperformance, and in the event of nonperformance, the ability to collect damages.

Q In this environment of trading on the wholesale market, what ratings are you and your trading partners looking at? In other words, of the list, there's about five or six that were typically given to a company, what is the one or the ones that make the most difference?

A Let me --

Q And I am talking about the corporate credit rating and the senior unsecured -- I'm not very adept at the terms.

A Okay. I was going to turn to an exhibit which listed our counterparties, and you could see where we were relative to them. And most of the counterparties ~~are~~ have significantly better credit ratings than us.

But in answer to your question, in our environment, the first thing a credit manager looks at is the senior unsecured credit rating. And that's because when a party enters into a transaction with another party, they are an unsecured creditor. And so they look at the ratings that the credit rating agencies assign to entities of the senior unsecured.

During the discussions over this week we haven't spoken about Puget's unsecured -- senior unsecured rating, because we no longer have one. We used to have one, and it was below investment grade. It was a BB plus with S&P, Standard and

I was going to ask in response to the earlier questioning. When you purchase gas, say this past fall for the upcoming time period, did I understand you correctly that you may purchase a certain amount, but if you get a better deal, if you can make a better deal later, you would replace that amount you bought with something that was more economical?

A In the power portfolio we can buy gas ~~from~~ for the plants, or we could leave -- not anticipate to run the plants, and purchase power from a third-party if that was more attractive.

So as we look forward in hedging in the power portfolio, we look at the relative price differences between power and gas. We look at what we think will be the dispatch rate of all the different facilities. And we also look at for every time frame and different types of instruments, what would give the best risk reduction for the amount of credit that we would be using. Kind of a marginal incremental hedging decision. What would you do -- what is the next best hedge to do?

And then once those hedges are in place, and let's use the example where we purchase gas would people have worried the same way?

A Well, there have been a couple of trends. More recently we have seen the new participation in the markets, the energy markets, of banks, investment banks, and commercial banks. They tend to transact in financial derivatives, energy derivatives. And they are more demanding, perhaps others would say sophisticated, in their assessment of the credit and credit risks. It's been a key part of their business strategies for many years.

So have you a new injection of new parties who make credit management their business, in addition to investment banking and other lines of business.

At the same time there was a radical change in the credit rating of a lot of the large energy firms. So I will give you a couple of examples. Williams Company was a strong investment grade rated company, and they have a large amount of energy gas production, and interstate and intrastate gas pipelines, and generation positions across the country, and large trading floor and large trading activity.

And they are -- I have it in here, but

is rather stark to look at us as a BBB minus compared to the entities in the wholesale market who are, for the most part, BBB plus or better credit ratings. And it limits how much we can transact on an open credit basis.

And the benefits of hedging that we put into the rebuttal testimony was to try and demonstrate that with an extension of additional credit to the Company resulting ~~for~~ from an upgrade of our current rating up two notches, we estimated it would be $430 million of additional credit that we could deploy into hedging, and we provide various scenarios.

The benefits we put in here, I think there may be some confusion with what came out with Mr. Gaines's testimony, are annualized benefits --

Q This goes back to the 10-year net present value?

A Correct. There's a reference in Exhibit 84 that says annualized benefits.

Q So does that mean --

A It's on page 13 of 15.

Q -- it's the net present value of 10 years of benefit annualized?

A Would you like me to talk to it?
Q I just don't know how to go about -- and I see a little figure, a bigger one, and a bigger one. And I don't know how to make heads or tails of that diagram.
A Okay. This is a confidential piece, but I think I can speak to it without touching on matters that would be specifically confidential. I think I can speak to it ~~grammatically.~~ thematically
We looked at the amount of credit we believed would be extended to the Company by physical counterparties, as well as by financial counterparties. So the key underneath the graphs has a reference there. There are four boxes, and it says, Ratings Upgrade from BBB Minus or Current Rating Up To BBB. And it says physical --
Q And physical means -- meaning that there would be more people willing to sell you more power or gas?
A What we did with our physical counterparties is we believe we're transacting with most everybody in the market. But that with a stronger credit rating they would be willing to transact more, that they would extend more credit

transactions. And we assumed that we buy them at a price, and we used a price curve that is consistent with what the resource planning team is using. And then we said, you enter into the transaction, and what if the market moved?

So the market moved up 30 ~~13~~ percent for the first year, and then 20 percent from the prices at which we entered into these theoretical hedges in the years thereafter.

Q So just tell me, what does 30 percent, 20 percent, what are the terms attached to, those percentages?

A So for example, this isn't the exact price. I am doing this theoretically. If the first year price of the contact -- the theoretical contract was $5 and we would say, well, 30 percent price stress of that would be -- 30 percent of $5, or $1.50. So that the benefit, at least on the first year with a hedge would be $1.50.

And then let's say the second through 10 years happen to be the $4. We would say, and a price stress of 20 percent on $4 is 80 cents. So there would be a hedging benefit of 80 cents for the subsequent years of that 10-year contract.

It is a fairly simplistic price stress.

And then we did the same thing with a higher price stress, the 60 percent, multiplied on the first year, 40 percent on the years thereafter on the sample transactions.

The Bank, to go back to your earlier question, we asked a banking counterparty for this list of gas and power transactions, "What do you see to be the hedging benefits associated with those?" And then we took their answers and aggregated them in the same scenarios that we built, and provided that as another data point for potential hedging benefits.

Q. So is a way to look at these three different figures, is that -- we will call it column 1 and column 2 and column 3 -- is that it shows the range of benefits under these different scenarios?

A That's correct. So that in the event that we look at what happens in an upgrade of incremental two notches up, we add the physical and financial -- I'm looking under the Bank column -- and that adds up to $21.9 million --

MS. DODGE: Could I ask, are we --

CHAIRWOMAN SHOWALTER: That might be

information for power counterparties, and also for financial counterparties.

Q And then I think it's on page 2 of this same exhibit, but this was using a credit rating going from BBB minus to BBB plus, and is that the corporate rating?

A That is the corporate rating, yes.

Q I just had one more question, which is on your direct, page 19 on lines 4 to 5 -- 3, 4, and 5. This is an example you are giving?

A This is Exhibit 71?

Q Yes, I am sorry.

A Uh-huh.

Q So if the gas were delivered over a 10-year period at $4.35, and the market moves a dollar to $3.35, then that translates into a 30 million net present value mark-to-market exposure.

And is what you mean by that is that you bought higher than the market turned out to be? I couldn't quite figure out the direction going from $4.35 to $3.35, and why that is an exposure for you.

A Usually in the big scheme of things it's beneficial when prices go down. But in this instance where we're a buyer, if prices go down subsequent to us entering into a transaction with a counterparty, the counterparty is concerned Puget will still perform under this agreement.

So if we had a counterparty who extended $30 million for us, which is at the high end of the range, most of the credit extended to us ranges between 5 million and 15 million, the counterparty would do a calculation of a mark~~-at~~-to-market and say, "We have a $30 million exposure to Puget. If anything happens and they don't perform, we will have these damages. Because if we want to resell this, we no longer have the benefit of the $4.35 contract price with Puget. The market is now at $3.35."

Q So if you fall through because of financial problems, you owe them $4.35, but they can only sell it for $3.35, so that's the exposure?

A Exactly.

Q But it seems like they are exposed, you aren't. It's a net exposure to your partner; is that right?

A Correct. So we bought it at $4.35, and the market moves down, we continue to perform at

$4.35 because that's what we committed to.

But their concern would be if we didn't perform, then they would have this exposure. And the market looks at this not only as an actual mark-to-market, in other words, yesterday the price was $4.35 and today the price is $3.35, they also look -- industry ~~purchasers~~ participants also look at it as a potential risk~~?~~

So when they are extending credit, if they have decided ~~we're~~ they comfortable doing up to $10 million of exposure with Puget, they are not going to be very interested in doing a deal that has this kind of exposure, because this is in excess of the open credit that they are comfortable extending to the Company.

Q So does this mean if you lock in the prices at some kind of rate, and then the market price goes down, that then at the point it's gone down, that itself can trigger this requirement on line 6 to post collateral?

A Yes. An actual move can trigger that. And then on a prospective basis -- I'm sorry.

Q So I hadn't realized this. In other words, as time goes along, your credit rating makes a difference as to whether something will

Yes and no. I think he's correct in that there have been small incremental changes on year -- say, from 2002 to 2003, and 2003 to 2004. There's been a small up~~takes~~tick of a couple of percentage in demand. And a very small change in supply going down, maybe. But only one or two percent per year.

So if you are looking in absolute terms, they don't seem very significant. But the issue here is that the North American Gas Market, the production capacity, the utilization of production capacity is almost at full capacity. And we're seeing -- and the demand is close to the production capacity.

So when demand ticks up a little bit, there's not more supply because the wells -- the producers are already producing the wells at a very high production rate. And there's a lot of discussion in the market, and also among policy makers, about the importance of having ~~fortified~~ liquified natural gas imports, or more pipeline supplies, because more supply is needed to basically meet this increasing demand.

~~So~~ Also global oil markets are similar in that there is a -- there are a lot of reports out

Q Is that a common term, 30 days?

A Uh-huh.

Q To reconcile the account?

A It's slightly different than that. We pay on the 25th of the month following the delivery period. So we pay February 25th for the month of January deliveries.

Q So that's where you described the $5 to $~~15~~ 5.50 swing, and credit exposure with any credit party, because that would be the amount that you would be obligated to pay that party within any given month?

A Right. We look at the credit. There are different slices in time. Let's use the example of a $10 million credit extended to us, and let's say we had a transaction occurring where we received delivery last month in November. We're continuing to receive delivery from this counterparty in December, and we have a forward transaction with this counterparty for January.

So the counterparty looks at all of these contracts. They will look at the product they have already delivered, and take the contract price, multiply that, and they will be looking for the full face value.

That's an obligation we have to pay them. For the deliveries occurring this month they will calculate every day of delivery, and monitor as we're ~~marking~~ marching through the month what our obligation will be to them for their deliveries this month. And for the contract that is in January, they will do a mark~~et~~-to-market where they say, "Well, we entered in that contract at a certain price, and here's the current market, and look at that difference." And they also are likely to look at where the market could go.

So it might be that prices have gone up 50 cents, but that doesn't mean that they will stay there in January, ~~and~~ they may correct or change. So they also do what we call potential exposure assessment for the forward transaction that no delivery has occurred on yet.

Q Now, assuming that the price would go down, is it common for the counterparty to net out its exposure?

A Absolutely. And we try to enter into netting agreements with parties, because it frees up more credit that way.

Q I would like to go to your Exhibit 74 C.

A (Complies.)

apparently has some theoretical flaws.

Have you read their material?

A I have read the prefiled testimony. I have not seen their transcripts of cross-examination from the hearing this week.

Having read their testimony, what Dr. Dubin -- he went through a very ~~expensive~~ extensive process to determine that, yes, there appears to be no cyclical trend in the number of water years. And that's basically what almost every party, with one or two exceptions, argued back in the 1992 process that was held by the Commission.

In fact, I was one of the parties advocating that there was no pattern to the water years, and every single water year should be used. Of course, my difference was that I maintained every single water year should be used starting in 1878, not 1928. So I did not see anything different or any surprises in either of their testimony.

I believe what the Commission determined, and I thought was a very fair process, was that it wasn't so much the number of water years was the issue, but it was more the rolling average to try to keep the rates more current with respect