1	BEFORE THE WASHINGTON STATE	
2	UTILITIES AND TRANSPORTATION COMMISSION	
3 4	WASHINGTON UTILITIES AND) TRANSPORTATION COMMISSION,) Docket No. UE-050) UG-050	
5	Complainant,)	
6	vs.) Volume IV) Pages 368 - 619	
7	AVISTA CORPORATION d/b/a) AVISTA UTILITIES,)	
8	Respondent.)	
9	/	
10	A hearing in the above matter was held	on
11	October 18, 2005, from 9:00 a.m to 5:05 p.m., at 1	.300
12	South Evergreen Park Drive Southwest, Room 206, Ol	ympia,
13	Washington, before Administrative Law Judge KAREN	CAILLE
14	and Chairman MARK H. SIDRAN and Commissioner PATRI	CK J.
15	OSHIE and Commissioner PHILIP B. JONES.	
16		
17	The parties were present as follows:	
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25	Court Reporter	

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14	
15	
16	
17	
18	
19	
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21	
22	
23	
24	
25	

1		
2	INDEX OF EXAMINATION	
3		
4	WITNESS:	PAGE:
5	WILLIAM E. AVERA	
6	Direct Examination by Mr. Meyer	375
7	Cross-Examination by Mr. ffitch	377
8	Cross-Examination by Ms. Davison	402
9	Redirect Examination by Mr. Meyer	429
10	Examination by Chairman Sidran	431
11	Examination by Commissioner Jones	433
12	Examination by Commissioner Oshie	449
13	MICHAEL GORMAN	
14	Direct Examination by Ms. Davison	456
15	Examination by Commissioner Oshie	458
16	Examination by Commissioner Jones	465
17	MALYN K. MALQUIST	
18	Direct Examination by Mr. Meyer	469
19	Cross-Examination by Mr. ffitch	470
20	Cross-Examination by Mr. Van Cleve	480
21	Redirect Examination by Mr. Meyer	484
22	Recross-Examination by Mr. Van Cleve	489
23	Examination by Commissioner Jones	490
24		

1	RANDALL O. CLOWARD	
2	Direct Examination by Mr. Meyer	492
3	Cross-Examination by Mr. ffitch	494
4	Redirect Examination by Mr. Meyer	508
5	CLINT KALICH	
6	Direct Examination by Mr. Meyer	511
7	Cross-Examination by Mr. Van Cleve	512
8	Cross-Examination by Mr. ffitch	557
9	Redirect Examination by Mr. Meyer	573
10	Recross-Examination by Mr. Van Cleve	579
11	Recross-Examination by Mr. ffitch	580
12	Examination by Commissioner Oshie	583
13	Examination by Commissioner Jones	584
14	RONALD R. PETERSON	
15	Direct Examination by Mr. Meyer	588
16	Cross-Examination by Mr. Van Cleve	589
17	WILLIAM G. JOHNSON	
18	Direct Examination by Mr. Meyer	608
19	Cross-Examination by Mr. Van Cleve	609
20	Cross-Examination by Mr. ffitch	611
21		
22		
23		
24		

1				
2		INDEX OF	EXHIBITS	
3				
4				
5	EXHIBIT:		MARKED:	ADMITTED:
6		WILLIAM E. AVERA		
7	50			377
8	51			377
9	52			377
10	53			377
11	54			377
12	55			377
13	56			377
14	57			377
15	58			377
16	59			377
17	60			377
18	61			377
19	62			377
20	63			377
21	75		428	429
22		MICHAEL GORMAN		
23	331			457
24	332			457
25	333			457

334			457
335			457
336			457
337			457
338			457
339			457
340			457
341			457
342			457
343			457
344			457
345			457
346			457
347			457
	MALYN K. MALQUIST		
31			470
32			470
35		480	480
	RANDALL O. CLOWARD		
221			493
	CLINT KALICH		
171			512
172			512
173			512
174			512
	 335 336 337 338 339 340 341 342 343 344 345 346 347 31 32 35 221 171 172 173 	 335 336 337 338 339 340 341 342 343 344 345 346 347 MALYN K. MALQUIST 31 32 35 RANDALL O. CLOWARD 221 CLINT KALICH 171 172 173 	 335 336 337 338 339 340 341 342 343 344 345 346 347 MALYN K. MALQUIST 31 32 35 480 RANDALL O. CLOWARD 221 CLINT KALICH 171 172 173

0374	:		
1		DON M. FALKNER	
2	122C	542	543
3		RONALD R. PETERSON	
4	81		589
5	82		589
6	83		589
7	84		589
8	85		589
9	86		589
10	87		589
11	88		589
12	89		589
13	90		589
14	91		589
15	92		589
16	93		589
17	94		589
18		WILLIAM G. JOHNSON	
19	181		609
20	182		609
21	183		609
22	184		609
23	185		609
24	186		609
25	187		609

1	PROCEEDINGS
2	JUDGE CAILLE: We are here for day two of the
3	Avista multi-party settlement hearing in Docket Number
4	UE-050482 and UG-050483. And I see Dr. Avera is on the
5	witness stand, if you will please stand and raise your
б	right hand, I will swear you in.
7	(Witness William E. Avera was sworn.)
8	JUDGE CAILLE: Thank you.
9	Mr. Meyer.
10	MR. MEYER: Thank you.
11	
12	Whereupon,
13	WILLIAM E. AVERA,
14	having been first duly sworn, was called as a witness
15	herein and was examined and testified as follows:
16	DIRECT EXAMINATION
17	BY MR. MEYER:
18	Q. Good morning, Mr. Avera.
19	A. Good morning, Mr. Meyer.
20	Q. For the record, would you please state your
21	name and who you're associated with.
22	A. William E. Avera, I'm the President of
23	FINCAP, Incorporated, 3907 Red River Street, Austin,
24	Texas.
25	Q. And have you prefiled both direct testimony

and rebuttal testimony as well as accompanying exhibits 1 in this case? 2 3 Α. Yes, sir, I have. 4 Do you have any changes or corrections to Q. make to any of those? 5 I have one change to my rebuttal testimony, 6 Α. which is Exhibit 62 at page 7. 7 Allow a moment for us to get there. 8 Ο. 9 At line 2 at the end of --Α. Q. 10 Excuse me, Mr. Avera, just one moment. 11 All right. 12 Α. At line 2 at the end there is a Footnote 5, 13 that footnote should be stricken and at the bottom of 14 the page the reference to that footnote similarly 15 stricken. 16 Ο. Do those complete your corrections? 17 Α. Yes, sir. 18 So if I were to ask you the questions that Q. appear in both your prefiled direct testimony marked as 19 20 Exhibit 50 as well as your rebuttal testimony marked as 21 Exhibit 62, would your answers be the same? 22 Yes. Α. 23 And have you also sponsored Exhibits 51 Q. through 61 as well as 63? 24 25 A. Yes, I have.

1	Q.	And is the information contained within those
2	exhibits t	rue and correct?
3	Α.	It is to the best of my knowledge.
4		MR. MEYER: Thank you.
5		With that, I move the admission of Exhibits
6	50 through	63.
7		JUDGE CAILLE: Are there any objections?
8		Then Exhibits 50 through 63 are admitted into
9	the record	
10		And, let's see, cross by Mr. ffitch.
11		MR. FFITCH: Yes, Your Honor.
12		JUDGE CAILLE: Are you going to start, okay.
13		MR. FFITCH: Thank you.
14		Good morning, Commissioners and Judge Caille.
15		
16		C R O S S - E X A M I N A T I O N
17	BY MR. FFI	TCH:
18	Q.	Good morning, Dr. Avera, it is Dr. Avera, is
19	it not?	
20	A.	Yes, it is, Mr. ffitch, it's good to see you
21	again.	
22	Q.	I was going to say that I believe we have
23	encountere	d each other at least once before in this
24	hearing ro	om.
25	Α.	We have.

So welcome back. As you know, I'm the lawyer 1 Ο. for the Public Counsel office with the Attorney General 2 3 here in this state. 4 Yes, sir, I'm aware of that. Α. Now, Dr. Avera, you performed your cost of 5 Q. capital analysis back in January or February of this б year; is that correct? 7 8 Α. That is correct. 9 And you did not update the ROE estimate, Q. 10 return on equity, in your rebuttal testimony, did you? 11 Α. I did not. 12 ο. And I'm going to be using equity cost or 13 return on equity as interchangeable terms here, is that 14 okay with you, they are interchangeable, are they not? 15 Α. Well, not exactly, Mr. ffitch. I think there 16 are technical differences in the way they are used. Cost of equity is a magnitude that arises in the market. 17 18 Return on equity is a magnitude that is a creature of the Commission and economic events. 19 20 Ο. All right. Well, let's use equity cost as a 21 term here then rather than ROE. 22 Α. Okay. 23 Q. Unless I say return on equity specifically. 24 Α. Yes, sir. Now let's start with taking a look at the 25 Ο.

1	discounted cash flow or DCF equity cost estimate, and
2	you provided a discounted cash flow estimate in your
3	direct testimony in this case of 9.8%, correct?
4	A. Correct.
5	Q. Now can you turn, please, to do you have a
6	copy of Mr. Hill's testimony up there?
7	A. I do.
8	Q. Could you please turn to page 82 of Exhibit
9	261, that's his direct testimony.
10	MR. MEYER: That page again, please?
11	MR. FFITCH: Page 82.
12	MR. MEYER: Thank you.
13	MR. FFITCH: Exhibit 261.
14	BY MR. FFITCH:
15	Q. Do you have that?
16	A. I do.
17	Q. And I'm looking at the top paragraph there,
18	and doesn't Mr. Hill indicate there that if you had
19	redone your discounted cash flow analysis at the time
20	when Mr. Hill prepared his testimony here in August of
21	this year that your discounted cash flow result would
22	have declined to 9.3%, which is very similar to
23	Mr. Hill's 9.25% recommendation?
24	A. That's what he says.
25	Q. All right. Now my question for you,

Dr. Avera, is where in your rebuttal do you specifically address Mr. Hill's testimony regarding the update of the discounted cash flow analysis? A. I don't address it. I didn't look to Mr. Hill's update to see if I agreed with it. The application of the DCF model as explained in my direct

7 testimony requires judgment as you look at the different 8 growth rate indicators to determine which best 9 represents what investors think. So in order to truly 10 update my analysis, I would have to look at all the 11 growth indications and apply my judgment, and I have not 12 done that.

Q. Okay, thank you. So you decided not to update it, and in your view it wasn't an appropriate thing to do, and you have just given us a brief explanation of why that is, but the fact is you did not update the DCF analysis, correct?

18 A. I did not update it because I felt that the 19 evidence that was in my direct and rebuttal were 20 sufficient to confirm that the 10.4 did not exceed the 21 cost of equity.

Q. Okay. Now can I get you, please, to turn to your response to Public Counsel Exhibit 714, which has been marked as one of your cross exhibits, and that's Exhibit 64.

1 Α. Yes, sir. 2 And essentially what that data request does Ο. 3 is ask whether since you last testified in Washington 4 you have changed your analytical methodologies, correct, that's a paraphrase? 5 6 Α. Yes. 7 Q. And you have in your answer indicated that you essentially perform two different analyses, the 8 discounted cash flow approach and the risk premium 9 10 approach, correct? That is correct, in both the earlier 11 Α. 12 testimonies as well as this one. 13 Q. All right. And then here you indicate that 14 there are some changes in the risk premium analysis in 15 this case, and then you describe them? 16 Α. Yes. Now before we get into those, some details on 17 Ο. 18 the risk premium analysis, I just wanted to sort of 19 check my memory, isn't your discounted cash flow 20 analysis different than the DCF methodology that you 21 used in the last Avista docket also? 22 Well, I think the methodology is the same. Α. 23 As I discussed earlier, my understanding of the proper allocation -- application of the DCF is we're trying to 24 25 replicate what investors have in their minds when they

pay the observed market price for the stock. 1 2 ο. Dr. Avera --3 Α. So in order to do that, we have to look at 4 various indicia of what investors require. 5 MR. FFITCH: Your Honor --6 Α. And it's not something that's mechanical. JUDGE CAILLE: Mr. ffitch, I think that the 7 8 Bench needs to hear the rest of Dr. Avera's explanation. 9 MR. FFITCH: Thank you, Your Honor, my 10 concern is that the witness is not answering the 11 question but is engaging in an unrelated speech, but I 12 will try not to step on his answers, thank you, Your 13 Honor. 14 JUDGE CAILLE: And if you will just make sure 15 your questions are very narrow, and, Dr. Avera, if you 16 will please try to answer the narrow question. 17 THE WITNESS: Yes, Your Honor. BY MR. FFITCH: 18 Well, here's my specific question on the DCF, 19 Q. 20 and I'm really just focusing on the multistage 21 discounted cash flow analysis versus a single stage 22 discounted cash flow analysis, and that was really what 23 my question was, do I recall correctly that in the last 24 Avista docket in this state that you used a multistage

25 discounted cash flow analysis?

Well, I'm not sure it was the last one. I 1 Α. 2 think in previous -- there has been a previous case 3 where I have used the multistage because I felt that it 4 was necessary to use that to capture investor expectations. Because at that time, the utility 5 6 industry was in a time of transition, and investors viewed the future as a discontinuous, that there would 7 8 be one set of growth for the period of transition, and 9 then there would be a longer term equilibrium growth. 10 So I was still applying the same DCF model, I was just 11 modeling what I believed to be investor expectations as 12 they were then as opposed to as I believe they are now. 13 Q. So perhaps you're refreshing my memory, that 14 was in the '99 docket rate case, I think it's 991601, 15 that was where you used the multistage DCF and not in 16 the immediate last docket; is that right? 17 That is correct, the immediate -- I think I Α. 18 have filed two previous rate of return testimonies here 19 in Washington. 20 Ο. Okay. And so then just to clarify, you did 21 not use that multistage discounted cash flow analysis in 22 this docket? 23 That is correct, because I don't feel that Α. 24 that captures investor expectations in 2005. Okay. And I understand that you have said 25 Ο.

that you have testified a couple of times, that you're 1 2 using the same analytical approaches, I think we can 3 stipulate that discounted cash flow and risk premium 4 analyses are used in most of these cases. That's not what we're talking about, we're talking about the 5 6 specific components of those methodologies and 7 variations within those approaches, aren't we? 8 Α. Well, I'm responding in this exhibit to a request about analytical methodologies, and to me there 9 10 are two different generic approaches, the DCF which 11 looks at the price of stock in the marketplace, and the 12 risk premium which looks at the yield of bonds in the 13 marketplace, so those are the two analytical 14 methodologies that I used then and now. 15 ο. Understood. And we're not talking about the 16 generic methodologies, we're talking about some different ways of skinning those two cats, aren't we? 17 18 Well, I think to apply the methodologies, Α. 19 when I was in graduate school my methods professor made 20 the distinction between methodology, which is the 21 philosophical approach you're using, and the methods, 22 which are the particular calculations or estimates you 23 do. So the methodologies are the same, the methods 24 change according to facts and circumstances. All right. So let's turn to the specific 25 Ο.

ways in which the methods for your risk premium analysis 1 2 have changed between this docket and the last one that 3 you testified in this state. And we're still looking at 4 Exhibit 64, and these are differences in your risk premium methods, and you cite two differences in the DR 5 6 response. The second one is a different approach to the capital asset pricing model, right, or what's known as 7 8 CAPM? 9 Α. Yes. 10 Ο. Now you didn't use CAPM or the capital asset 11 pricing model at all in the Avista cases in this 12 jurisdiction in the 991606 docket, did you; do you 13 recall? 14 Α. I don't have a specific recollection, 15 Mr. ffitch. 16 Okay. Can I get you to turn to page 44 of Ο. your direct, and that's Exhibit 50. 17 18 Do you have that? And there you show your 19 risk premium results, correct, at the top of the page? 20 Α. That is correct. 21 And the top four numbers are bond yield plus Q. 22 risk premium, and the bottom four are your capital asset 23 pricing model results, correct? That is correct. The bond yield plus risk 24 Α. 25 premium is one way of categorizing the approaches that

don't use the capital asset pricing model. All are risk 1 2 premium approaches. 3 Ο. As the heading shows, thank you. 4 And the capital asset pricing model produces the highest results, correct, as we see on this chart? 5 6 Α. Yes. 7 Now we also see on this table of numbers that ο. all of your risk premium analyses have a current 8 9 estimate and a rate year estimate, correct? 10 Α. Correct. 11 ο. Now in Exhibit 64, your response there says 12 that one of the differences in your testimony this time 13 is that you have elected to incorporate projected bond 14 yields into your risk premium methods, so is it safe to 15 assume that your rate year estimates are those that 16 include the bond yield projections? 17 Yes, they do. Α. 18 Okay. Now you didn't do that in your Q. testimony in the last docket in Washington, the 041515 19 docket, correct? 20 21 Α. That is correct. 22 And do you recall whether you did that in the Q. 23 991601 docket in Washington? I don't believe I did. 24 Α. 25 In all of those rate year estimates, which Ο.

are the ones you did not do in the last two cases, those
 are higher than each of the current estimates shown
 here, correct?

A. Yes, because it reflects the reality that we're in a rising interest rate environment, which was not the case in the previous times I testified. And I thought it was important, as I explained in my testimony, that the Commission consider the reality of the rising interest rate environment in establishing rates.

11 Ο. Are current long-term interest rates higher 12 now than they were at the first of the year, Dr. Avera? 13 Α. Many are, especially as of today after the 14 announcement this morning that the producer price index 15 went up 6.9%, which is the largest increase since 1990, 16 and since Dr. Greenspan's address last night which indicated concern about inflation and an intent to 17 18 continue with the increases in the short-term rates of which there have been 11 so far, and there have been 5 19 20 since the beginning of the year.

Q. Are there long-term interest rates that are not higher than they were at the first of the year? A. Well, I haven't looked at all the, you know, there are a lot of long-term interest rates, but the 20 year that I use in my testimony is higher now than it

was when I did my testimony. The 60 day or 90 day 1 2 treasury bill rate that Mr. Hill used is higher now than when he did his testimony. The 30 year treasury bond is 3 4 considerably higher now than when he did his testimony. So interest rates have gone up since the first of the 5 6 year and especially since the testimony before the Commission has been filed. 7 8 Ο. Now in preparing your estimate of equity costs in this case, you relied on a financial forecast 9 10 that showed a 20 year treasury bond yield over various 11 quarters of 5% in the first quarter, 5.2% in the second 12 quarter, and 5.4% in the third quarter, did you not? 13 Α. Yes. 14 Q. And that was the Blue Chip Financial 15 Forecast? 16 That was one of them, I think I used three Α. different forecasts, but that was one of the forecasts I 17 18 used. Okay. And can I ask you to please refer to 19 Q. 20 Public Counsel Exhibit 73; do you have that? Yes, I do. 21 Α. 22 Now that's a Federal Reserve Statistical Ο. 23 Release showing selected interest rates, and that's dated October 11th, 2005, correct? 24 25 That's correct, the latest interest rate Α.

shown is October 7th, which is two weeks ago. 1 2 Q. Okay. 3 Α. More than two weeks ago. 4 Well, I'm going to take you down to the 20 Q. year treasury, this is about two thirds of the way down 5 6 the page, the main heading is U.S. government 7 securities, then treasury constant maturities, and then there are nominal numbers for different time periods, 8 9 and the 20 year number is at the bottom of the list; do 10 you see that? 11 Α. Yes. 12 ο. And if we go across to the week ending 13 September 30th, we see 4.59 as the interest rate, 14 correct? 15 Α. Yes. The most recent week, I looked at it on 16 the Internet this morning, is 4.77. 17 Right, well, this number is almost 100 basis Ο. 18 points below the Blue Chip projection that we just discussed, correct? 19 20 Α. Yes, it is, but --21 Q. And the update that you mentioned is still 22 significantly below, no longer 100 basis points, but 23 still quite significantly below the projections that you looked at in the Blue Chip forecast? 24 25 Α. Yes.

1 Those forecasts didn't turn out to be Ο. 2 correct, did they? 3 Α. Well, we're not there yet. Forecasts are not 4 generally exactly on the money. If you looked at my resume', Mr. ffitch, you know I began my professional 5 6 career in the Navy as a weather person, so I'm very much aware of the difficulties of forecasting. But I think 7 8 the general view and consensus of rising interest rates 9 that is reflected in my testimony is still very much 10 current in the investments in the marketplace in 11 investors' minds, so we're not there yet, and I think 12 interest rates are indeed rising. 13 Q. Did you use projected stock prices in your 14 discounted cash flow analysis?

15 A. No, I did not.

Q. Can I ask you now to turn to Exhibit 62, which is your rebuttal testimony, and I'm going to ask you to turn to page 19, and there's a Q&A that goes from line 3 to line 13. Essentially this question and answer is a discussion by you of Mr. Hill's reference to an AG Edwards publication on the gas utility industry,

22 correct?

A. Correct.

Q. Now you don't dispute, do you, that the AGEdwards publication is informing its investor clients

that they can expect to earn average returns on their 1 2 gas utility investments of 8.4%? 3 Α. That is correct, that is the figure that 4 appears in their report. 5 Is it your testimony that a national Q. 6 brokerage firm like AG Edwards would provide faulty or misleading information to its clientele? 7 8 Α. No, I think they do the best they can helping 9 their investors know the future. I think they know, as 10 investors know, that AG Edwards, a very respected 11 regional investment firm from Saint Louis, doesn't know 12 the future any more than Goldman Sachs or Merrill Lynch 13 or any other investment analysis firm. 14 Q. Can I ask you now to turn to page 14 of your 15 rebuttal testimony, Exhibit 62 still. Are you there? 16 Α. Yes. And there you discuss Mr. Hill's reference, 17 Ο. 18 and I'm looking at the question on line 7 and then the answer, you discuss Mr. Hill's reference to the 19 20 relationship between market to book ratio, return on 21 equity, and the cost of capital, correct? 22 Α. Yes. 23 Q. And you cite Roger Morin's book for support 24 that Mr. Hill's position is flawed, correct? 25 Α. Yes.

And that is actually cited in the footnote 1 Ο. there, Footnote 19, correct? 2 3 Α. Correct. 4 Now can you please turn to Exhibit 74, this Q. is one of your cross exhibits. 5 6 Α. Yes, sir. I would point out I have -- my copy of those pages of the book, the cross exhibit, has 7 the pages out of order, and it also ignores -- doesn't 8 9 include the last page of this discussion which is on 10 page 250. 11 Ο. All right. When you say out of order, do you 12 mean 49 coming before 48? 13 Α. Yes. 14 Q. Okay, I'm not -- you may be -- I'm hoping 15 you're alone in that. We had -- the intention is that 16 the exhibit will have a cover page from the Morin text, page 248, followed by page 249. 17 18 JUDGE CAILLE: That's what we have up here, Mr. ffitch. 19 20 MR. FFITCH: Thank you. BY MR. FFITCH: 21 22 Now this is a cover page and then the excerpt Q. 23 from this same text that you cite in your testimony, 24 correct? 25 A. Yes, sir it is.

1 And the page that we're looking at is Q. entitled the market to book ratio and the cost of 2 3 capital in theory, right? 4 Α. That's correct. 5 And just kind of walking through some of the Q. terms here, capital M represents the market price, 6 correct? 7 8 Α. Correct. 9 And capital B is the book value; is that Q. 10 right? 11 Α. Correct. 12 Q. And lower case r is the expected return on 13 equity, correct? 14 Α. Yes. 15 Q. Now the return on equity is defined as the 16 earnings divided by the book value of the firm, correct? 17 Α. Yes. 18 And that's an accounting based measure of Q. return, right? 19 20 Α. That is correct. 21 Q. And then capital K is the cost of equity 22 capital, right? 23 Α. That's correct. And the cost of equity capital is a market 24 Ο. 25 based measure of return, correct?

A. That is correct, it exists in investor
 requirements.

Q. All right. And that's what we're trying to
estimate when we use the discounted cash flow and the
capital asset pricing models and other methods, correct?
A. Yes, sir.

Now if you could look at the bottom of page 7 ο. 8 248, which is page 2 of the exhibit, and I think the numbering at the top, the internal numbering at the top 9 10 of the page is incorrect, but it's the second page of 11 the exhibit, page 248 of the Morin text, if you look at 12 the bottom of that, please, we have a formula that 13 states, and I'm paraphrasing the one aspect of it, but 14 essentially it states that the market to book ratio will 15 be greater than 1 if the earned return is greater than the cost of equity capital; is that correct? 16

17 A. That's correct.

Q. Now let's turn to the next page of the text, if you would, that's page 249, page 3 of the exhibit. And if you could, please, I won't ask you to read the whole top section, it's referring to what's described as equation 10-7, correct, and could you read the last sentence before the shaded block, please, starting equation 10-7.

25 A. Yes.

Equation 10-7 provides a method of 1 finding the cost of equity capital that 2 3 is consistent with the observed M/B ratio. 4 Okay, and that's referring to market to book 5 Q. ratio, correct? 6 7 Α. Correct. And Morin's equation 10-7 is the same 8 Ο. equation that Mr. Hill uses in his market to book equity 9 10 cost analysis, correct? 11 Α. It is correct, but I should point out that 12 Professor Morin in the last paragraph starts talking 13 about why this can't be applied, and then had the 14 exhibit included page 250, there were three more reasons 15 why it is unrealistic and not practical. 16 Ο. And have you addressed whether or not Mr. Hill dealt with those issues in his testimony? 17 I don't believe he did, and there are other 18 Α. issues other that the ones that Professor Morin wrote 19 20 down in 1994. I recently had a conversation with 21 Dr. Morin about this issue, and one of the big problems 22 of course is the book value we observe for electric 23 utilities is affected by accounting rules. As you mentioned earlier, it's an accounting number. In recent 24 years because of accounting rules, a number of electric 25

utilities have had significant writedowns of their book
 value, so those writedowns drive book value when there
 is no change in market value but the apparent market to
 book changes dramatically.

5 MR. FFITCH: And, Your Honor, we would be 6 happy to have the company submit the additional page to 7 this exhibit if that's their preference to complete the 8 discussion on this issue out of the text.

9 MR. MEYER: We can take care of that, or 10 through redirect I will visit with the witness about 11 some of the other critiques on the following page. 12 BY MR. FFITCH:

Q. I would like to now turn to the topic of capital structure, if I could, Dr. Avera. And again looking at your rebuttal, Exhibit 62, and can I get you to turn to page 55, please. That's at line 24, last line on the page, and there you state: Mr. Hill derived a "utility-only"

19 capitalization based on a separate, 20 divisional equity balance and assigning 21 all of Avista's outstanding debt to 22 utility operations. Based on this 23 arithmetic, Mr. Hill concluded that 24 Avista's jurisdictional utility 25 operations were actually financed with

29.26% common equity. 1 2 That's a correct reading, isn't it? 3 Α. Yes, sir, it is, Mr. ffitch. 4 Now are you aware, Dr. Avera, that Avista Q. states in its 2004 10-K that 65.8% of the common equity 5 6 appearing on the balance sheet was invested in Avista Utility and 34.2% of it was invested in Avista Capital, 7 8 which is an unregulated affiliate? 9 I'm aware of that representation, the exact Α. 10 numbers seem familiar, but I'm aware there was a 11 representation of the proportional equity. 12 ο. You're not representing or testifying in this 13 case that that is an unimportant factor, are you? 14 Α. Well, I'm saying it's important for certain 15 circumstances, but from an investor's perspective, an 16 investor can not invest in a utility, Avista Utility only. There is no holding company here, there is only 17 18 Avista Corporation. So the stock and the bonds are 19 obligations and represent an investment in Avista 20 Corporation. So while you can separate the equity and 21 you can make calculations, from an investor perspective, 22 the relevant capital structure is the corporate capital 23 structure. 24 Ο. Well, this issue is important enough for

Avista management to put this on page 1 of the 10-K, 25

1 wasn't it?

2 That is correct, it is a proper disclosure. Α. 3 But for the purposes that Mr. Hill and I are engaged, 4 which is to estimate the cost of equity and to determine the appropriate capital structure that goes with that 5 cost of equity, I think it's important to keep in mind 6 that investors must invest in the total entity. 7 8 Ο. Well, we also are taking into account the 9 interests and perspective of rate payers in this case,

10 are we not, Dr. Avera?

11 Α. Absolutely, I think customers are foremost in 12 everyone's thoughts in terms of resolving the case 13 before us. I think that goes without saying. From my 14 experience as a regulator, I'm very mindful of that. 15 And would you disagree that to the extent Ο. 16 that rate payers are paying a return on equity on a capital structure above this 30% utility-only capital 17 18 structure that that constitutes a rate payer subsidy? No, sir, I do not agree. I don't think the 19 Α. 20 customers are paying too much, because I think customers 21 get the benefit of the entire capital structure. That's 22 what stands behind the bond ratings that determine the 23 debt cost, and that's what the customers get the benefit of. So I don't think there is a subsidy, I disagree 24

25 very much with Mr. Hill's characterization of that as a

1 subsidy.

Q. Are you aware, Dr. Avera, that Avista responded in this case to data requests stating that all of the debt that appears on Avista's balance sheet is utility debt?

6 A. Yes, I am aware of that.

Q. And so when you stated here in your testimony that Mr. Hill assigned all of Avista's debt to the utility, what did you mean by that?

10 A. That he assigned it to the utility, but it is 11 still Avista debt. It is the Standard & Poor, I think 12 there is a cross exhibit which is a Standard & Poor's 13 rating of Avista, the Standard & Poor's rating is a 14 rating of Avista Corporation. Avista Corporation issues 15 the debt, it is assigned to the utility operations, but 16 it is still Avista Corporation debt.

17 Q. And it's assigned by Avista, correct?18 A. Yes.

19 Q. As a factual matter, that's not an opinion of 20 Mr. Hill, is it, that's an assignment by the company 21 that he is simply relating in his testimony, correct?

A. That is an assignment, but it's still from an investor's perspective does not change the reality that an investor invests in Avista Corporation, both the equity and the debt. And since we're talking about

equity especially here, the equity is equity of the
 corporation. The investor can not do the Chinese menu
 thing and say I only want to buy stock in the utility,
 they must buy stock in the corporation.

Q. And similarly, the rate payer has no choice
either as to what rate they pay to subsidize a return on
equity on equity that is not utility equity, correct?
MR. MEYER: Object to the form of the
question, it stated or it characterized that this is a
rate payer subsidy, and object to the form of the
question, ask that it be reformulated.

MR. FFITCH: I will move on to my nextquestion, Your Honor.

14 BY MR. FFITCH:

Q. If the consolidated company common equity ratio is about 40% and all of the debt is utility debt but only part of the equity is utility equity, the capital structure that supports the utility operations has an equity ratio that's below 40%, correct? A. You can do the arithmetic as Mr. Hill did to

come to a lower capital structure, but from an
investor's perspective the investor is investing in the
corporation, and the corporation has 40% equity and 60%
debt. Secondly, I think it's very important for the
purposes of ROE, the comparable companies we're looking

at, the industry generally has a capital structure with 1 2 much more than 40% equity. So to the extent that we 3 estimate the cost of equity based on industry 4 comparables, as I have done, Mr. Hill and Mr. Gorman have done, we are picking a cost of equity which goes 5 6 with a capital structure with significantly more equity. 7 Q. Well, let me try to ask that question again, Dr. Avera. Accepting your characterization of this as 8 simply a mathematical exercise, the capital structure 9 10 that supports the utility operations in the scenario I 11 have described has an equity ratio that's below 40%, 12 correct? 13 Α. You can calculate a utility only capital 14 structure which is below 40%. I have some problem with 15 your use of the word supports. There is -- you can 16 calculate, the company has done it, Mr. Hill has done

17 it, a utility capital structure which has less than 40%
18 equity.

19 Q. All right, thank you.

A. But that is not what investors see.
MR. FFITCH: All right, I understand your
point.
Those are all my questions, Your Honor.

24 JUDGE CAILLE: Ms. Davison.

25

CROSS-EXAMINATION 1 BY MS. DAVISON: 2 3 Ο. Good morning, Dr. Avera. My name is Melinda 4 Davison, and I'm the counsel for the Industrial Customers of Northwest Utilities in this case. Are you 5 6 familiar with the settlement agreement in this case? 7 Α. I am generally familiar with it. 8 0. Are you the sponsoring witness for the ROE that's agreed to in the settlement? 9 10 Α. I'm not sure. I recommended or I agreed with 11 in my testimony the company's request for 11.5. In my 12 rebuttal testimony I said that the 10.4 embodied in the 13 settlement was certainly reasonable by comparison to 14 quantitative estimates and other what we see being 15 allowed for other utilities here in Washington for the 16 Puget order. So I testified as to the reasonableness. Now sponsorship, I'm not really sure, we might have to 17 18 ask Mr. Meyer if that's the correct characterization of my role here. 19 20 ο. Well, I guess given your extensive experience 21 in this area, I think the question is pretty clear,

22 either you're the sponsoring ROE witness for the 23 settlement agreement or you're not.

A. Well, I am certainly testifying that the 10.4is reasonable, and I'm testifying that as I understand

it in the context of the stipulation it is beneficial to
 customers and to the customer -- and to the company, so
 I am certainly endorsing the 10.4. I think it is a
 reasonable resolution of this matter.

Q. So if I conclude from your answer that you are, in fact, the sponsoring ROE witness for the settlement agreement, then my question is, why doesn't your name appear on the joint testimony supporting the settlement agreement?

10 MR. MEYER: Your Honor, I don't believe that 11 that's what the witness testified to. He has indicated 12 and his rebuttal testimony speaks for itself, it speaks 13 to evidence that would support a higher than a 10.4 ROE. 14 That's our witness's expert testimony. Now for 15 settlement purposes it should be obvious that we have 16 agreed to less than what he suggests and his rebuttal evidence would support. The fact that we entered into a 17 18 settlement agreement at something less than that has 19 been the subject of yesterday's discussion about 20 compromise on a number of issues, and so I don't think 21 it advances the ball much to talk about whether he is 22 sponsoring 10.4. He is sponsoring his expert ROE 23 testimony. It stands as it is. Other witnesses such as 24 Mr. Norwood have talked about the compromises that have gone into the settlement document. Hopefully that 25

1 clarifies.

2 MS. DAVISON: Your Honor, I believe that I am 3 entitled to discern who is the witness that is 4 sponsoring the 10.4 ROE that is in the settlement 5 agreement, and that is simply what I am trying to elicit 6 here, and I think that is a very fundamental evidentiary 7 issue in this case.

8 MR. MEYER: I believe the witness has 9 responded to his comfort level with 10.4 as a settlement 10 figure. We also have Mr. Malquist, our CFO, who will be 11 taking the stand and can shed further light on why the 12 company might have agreed to 10.4. We have already 13 heard testimony from Mr. Norwood to that effect as part 14 of a package.

15 MS. DAVISON: And I understand that, Your 16 Honor. I'm just simply trying to understand as an 17 evidentiary matter who is the witness sponsoring 10.4, 18 whether it's Dr. Avera or another witness. And I guess I had understood Dr. Avera to say yes, he is sponsoring 19 20 it. Mr. Meyer has now told me that is not correct. So 21 I'm trying to get to a very fundamental issue here that 22 I think is fairly straightforward.

JUDGE CAILLE: All right, I'm going to ask
the court reporter to please read back Dr. Avera's
response to Ms. Davison's last question.

(Record read as requested.) 1 2 JUDGE CAILLE: Ms. Davison, I believe that 3 that's the witness's answer. 4 MS. DAVISON: Well, I guess, Your Honor, I don't want to belabor this point, but I am trying to get 5 a yes or no answer from Dr. Avera whether he is the 6 7 sponsoring witness of the settlement on ROE or not, and I do believe that's a question I'm entitled to get an 8 9 answer to in a yes or no fashion. 10 MR. MEYER: If that very question needs to be 11 put to someone, I would suggest that it either might 12 have been put to Mr. Norwood but can still be put to 13 Mr. Malquist. 14 JUDGE CAILLE: All right, I'm going to ask 15 the witness to please answer Ms. Davison's question. 16 Α. I don't know. I have been asked to comment on the reasonableness of the 10.4, my testimony, my 17 18 rebuttal testimony I think documents that 10.4 is lower than quantitative indications of the cost of equity. So 19 20 that's what my testimony does. In terms of sponsorship 21 as it might have a legal or regulatory interpretation 22 here in Washington, I can't say. 23 BY MS. DAVISON: Q. 24 Okay, let me try it this way, do you have the

25 joint direct testimony supporting the stipulation in

1 front of you?

2 A. I do not.

Q. All right. That testimony has listed as the joint witnesses as Kelly Norwood, Brian Hirschkorn, Roger Braden, Michael Parvinen, Hank McIntosh, Joelle Steward, Donald Schoenbeck, and Charles Eberdt. Of those individuals, are you aware of any of them that have credentials sufficient to testify on issues regarding ROE?

A. I'm not familiar with all of the individuals,
I have worked extensively with Mr. Norwood, but I can't
comment on their relative qualifications to testify on
ROE.

Q. Do you believe that the 10.4% ROE in the settlement is sufficient for Avista to attract the capital needed to meet the economic and reliability needs of the company? And if you can answer yes or no and then provide an explanation, please.

19 A. Yes, I think it does within the context of 20 the stipulation that has other beneficial attributes 21 from an investor's perspective that would allow the 22 company to attract capital. I think the stipulation in 23 my experience, having been involved in many stipulations 24 in many jurisdictions, a stipulation is a total package, 25 it is the result of compromise. And I think the 1 investment community when they look at a stipulation and 2 how it affects their willingness to put capital into a 3 utility looks at all of the characteristics. One of the 4 benefits of a stipulation is the certainty that it 5 brings to the regulatory situation.

Q. Isn't it true in your direct testimony that
you conclude that the 11.5% ROE is needed by Avista, "at
this critical juncture given the importance of
supporting the financial capability of Avista" to ensure
that it can attract the capital necessary for providing
reliable service?

12 A. Yes.

13 Q. Do you know how the parties derived the 10.4% 14 ROE?

15 I was not present. I have talked to Α. 16 Mr. Malquist about his participation, I have talked 17 somewhat to Mr. Norwood and Mr. Falkner about their 18 participation. My understanding was there was a give and take over a period of days when different parties 19 20 made different offers. And at the end of all of this 21 process, the stipulation was agreed to by the company 22 and some of the parties, which incorporated the 10.4 23 along with a number of other characteristics. So it was a negotiated settlement that involved give and take. I 24 25 understand that it evolved over time as these things do,

but I was not present, and I think if you want to know exactly how it may have evolved, Mr. Malquist would be the person that can tell you.

4 Q. Is it correct that your testimony does not 5 actually support a 10.4% ROE?

6 My testimony demonstrates I believe that 10.4 Α. 7 does not exceed the cost of equity for Avista at this 8 time and that the arguments that are raised by Mr. Hill 9 and Mr. Gorman to change the stipulation for a lower 10 return or for a different capital structure or including 11 restrictions on dividends are misguided and would alarm 12 the investment community and be contrary to the interest 13 of customers.

14 Ο. Would the investment community be alarmed if 15 the ROE, let's say the Commission decided to adopt a 16 10.25% ROE, would that alarm the investment community? Well, I think to the extent that the 10.4 is 17 Α. 18 out there, it has been commented upon, I think if this Commission were to change a material characteristic of 19 the stipulation, and I think the ROE is a material 20 21 characteristic, I think that would be alarming. Now I 22 think a 10.25 change would be less alarming than a 9.8 23 or a 9.25 as Mr. Gorman and Mr. Hill propose, but I think any change from the stipulation would be a matter 24 of focus by investors, and how they react would depend 25

on how large the change was and if there were any other 1 2 offsetting changes made to the stipulation. 3 Ο. Was the investment community alarmed when 4 Avista decided not to pursue your 11.5% ROE and instead agreed to 10.4% ROE? 5 6 Α. Well, I think the investment community always favors certainty, and I think the fact that the 7 stipulation seemed to bring certainty was a favorable 8 9 attribute that offset I think the fact that 10.4 was a 10 lower number than they may have hoped for from a 11 litigated case. So I think the investment community 12 looks at the whole situation, the adjustments to the 13 ERM, the certainty that it brings to the regulatory 14 environment at this crucial time for Avista, so I think 15 the stipulation has been viewed by the investment 16 community, in one of the cross exhibits is the recent 17 Standard & Poor's report, has been viewed as a positive 18 because it does resolve uncertainty. Dr. Avera, isn't it correct that the 10.4 19 Ο.

20 does not resolve any uncertainty at all until the 21 Commission decides to adopt an ROE number in this 22 docket?

A. I think that's true. I think the investment
community generally feels that when the Staff and other
interveners and the company reaches a stipulation that

there is a good probability that it may be accepted by 1 2 the Commission. That has been the experience in other 3 stipulations. I think the investment community is 4 mindful that the Commission does have an obligation to review settlements and find them to be in the customers' 5 6 interest, so I think investors know that the Commission 7 will have the last word. But I think when a stipulation is reached that involves a number of parties, especially 8 9 the Commission Staff, I think the investment community 10 regards that as having some significant impetus toward 11 being approved. But they know that the final world 12 rests with the Commission.

Q. Turning back to the settlement agreement and the 10.4% ROE, am I accurate in concluding from one of your previous answers that basically that's an agreed upon number that isn't supported by workpapers or mathematical type equations, that it was just simply a compromise position; is that correct?

A. It is a compromise position, but I wouldn't
say just a compromise position. The compromise was
reached after substantial testimony was filed, after the
Staff and the other parties had the benefit of seeing
the company's testimony, including my direct testimony.
So the stipulation is not done in a vacuum, it's done in
the context of a great deal of information, information

about this case, information about the Commission's 1 2 recent order in the Puget case and in other cases, 3 information about what's happening in other commissions. 4 So I think the give and take that occurs in a stipulation is informed by all of this information, my 5 6 direct testimony, the other company testimony, and information about capital markets and regulations 7 8 generally. 9 You appeared as Avista's cost capital witness 0. 10 in the 1999 general rate case before the Washington 11 Commission; is that correct? 12 Α. Yes, it is. 13 Q. Do you recall that the Commission refused to 14 adopt your multistage DCF analysis because it was not 15 supported by sufficient factual foundation? 16 It breaks my heart, but I remember some Α. language like that, so. I thought at the time that the 17 18 multistage did reflect how investors may be looking at utility stocks, the Commission found otherwise. 19 20 ο. Doesn't the Commission's concern in 1999 21 present itself here with regard to the settlement 22 adopting the 10.4% ROE in that there is no factual 23 support to demonstrate that 10.4% ROE versus 10.3% versus 10.2% is a reasonable number? 24

25 A. No.

1	MR. MEYER: Object to the form of the
2	question. The form of the question again assumed, well,
3	assumed explicitly that there was no factual support for
4	the 10.4%, and I believe this witness has already
5	testified that there is evidence in the record
б	suggesting an even higher ROE would be appropriate and
7	that the 10.4% was a negotiated position, so object to
8	the form of the question.
9	JUDGE CAILLE: Any response, Ms. Davison?
10	MS. DAVISON: Well, I think we have had this
11	dialogue back and forth, so I think Dr. Avera and I have
12	a common understanding, but I mean if you would like me
13	to rephrase it, I can.
14	JUDGE CAILLE: Would you, please.
15	BY MS. DAVISON:
16	Q. Understanding that the 10.4% ROE is a
17	compromise position that does not have a workpaper
18	behind it supporting its calculation, doesn't the
19	Commission's concern expressed in the 1999 order also
20	present itself here?
21	A. No, it does not. And the reason it does not
22	is because, first, cost of equity I think as recognized
23	in the 1999 order is not a precise number that we can
24	find in some publication or by some experiment. It is a
25	judgment call that we can only indirectly infer from

marketplace information. I describe in my direct 1 2 testimony that the cost of equity must be inferred from 3 indirect evidence, either equity market evidence using 4 the DCF or debt market evidence using the risk premium or CAPM methods. So at best we can come up with a range 5 6 of reasonableness for the cost of equity, and I think that's what this Commission has done in other cases as I 7 8 have read recent orders as well as the 1999 order.

9 Now that range though is informed by 10 evidence. We have evidence from the capital markets. 11 We know what market prices have done, we know what risk 12 measures like bond ratings like Standard & Poor's 13 business position indicators are, we know what Betas 14 are, we know what Value Line says, we have lots of 15 information about the relative risk of the company and 16 investor requirements. And using that information, we can develop a reasonable range for the cost of equity. 17

18 I have developed a reasonable range in my direct testimony. I think the 10.4 falls within that 19 20 reasonable range. So I think there is plenty of 21 information that we can apply to estimating a range for 22 the cost of equity, and I think that was available to 23 the parties when they were negotiating the stipulation. 24 Ο. The Commission stated in the 1999 order: If meeting the burden of proof through 25

1	opinion testimony has any meaning, it
2	means that the witness must present a
3	logical connection between the factual
4	evidence presented and the opinion
5	offered.
6	Is it your testimony that your direct
7	testimony in this case supports the 10.4% ROE?
8	A. Yes, I think it is factual information about
9	various indicators of Avista's relative risk, indicators
10	about what investors require from stocks and bonds of
11	similar utilities, and I think that information is
12	factual. I think it supports my expert opinions, so I
13	think the Commission has available to them information
14	that they use. In 1999 the Commission chose not to
15	consider the multistage DCF, it did consider other forms
16	of the DCF and other forms of the risk premium. I think
17	those are presented here.
18	Q. Let's assume hypothetically that the
19	Commission decides not to adopt the recommendations or
20	the testimony that you sponsored in this case, as they
21	did in 1999, what testimony is left in the record then

22 to support the 10.4% ROE?

A. Well, I think my rebuttal testimony where I
look at the analyses that Mr. Hill and Mr. Gorman have
done and explain how they are biased downward and

explain how certain things were ignored or certain 1 2 things should be considered to increase the estimates 3 that these gentlemen present. I think that evidence 4 even if you completely ignore, as I don't think you should or the Commission should, my direct testimony, I 5 6 think the rebuttal testimony based on my analysis of 7 what the intervener witnesses have presented supports the 10.4. 8

9 But you would agree through your years of Ο. 10 experience that neither ICNU nor Public Counsel have the 11 burden of proof on this issue, would you not? 12 Α. Well, again, you're asking me a legal 13 question. My understanding from my 35 years of 14 participation in the regulatory environment is that the 15 company generally has the burden of proof, although I'm 16 trying to think about when you have a stipulation and 17 there are parties who are objecting to the stipulation, 18 I think they have some obligation to come forward with evidence of their objections. 19

20 Q. I would like to explore a subject that 21 Mr. ffitch covered briefly with you, and that is the 22 settlement agreement assumes that Avista has 40% equity; 23 is that correct?

A. That is correct.

25 Q. And it's true that the 40% equity includes

1 investments in Avista's unregulated operations; is that
2 correct?

A. Well, the 40% equity is first representative of the consolidated equity which includes the utility as well as other operations. It is also well below what the comparable companies in the utility industry generally have as an equity ratio.

8 Q. Let me try my question again, it really is a 9 yes or no question. Isn't it true that the 40% equity 10 includes the investments in Avista's unregulated 11 operations?

12 Α. No, the 40% is a number that's in the 13 stipulation. Now Mr. Hill said in his testimony it 14 happens to be the same as the consolidated capital 15 structure. Mr. Hill is very clear in his testimony that 16 he recommended 40% not because it was the consolidated capital structure but because it was representative of 17 18 the industry. So the 40% is 40%. Now it happens to be close to the consolidated capital structure, it happens 19 20 to be on the low end of the industry. It is a number 21 that is used to calculate a revenue requirement and a 22 weighted average cost of capital, but the 40% is 40%. 23 Q. Do you agree with Mr. Gorman that the correct

24 level of equity for the utility operations of Avista is 25 27%?

2 ο. The actual. 3 Α. The actual, I would agree that if you do the arithmetic, and I think, I don't remember exactly what 4 time period Mr. Gorman did it, but if you do the 5 exercise of assigning the debt to the utility and then 6 7 break out the equity, you get something in the neighbor, 8 you know, under 30% historically. It's moving up. 9 Do you agree with Mr. Gorman's calculation Ο. 10 that if you use 27% equity that the 10.4% ROE translates 11 into 12.88% ROE? 12 Α. No, I don't agree with his reasoning, because 13 the 10.4 is based on a 40% capital structure, which I 14 think is a reasonable capital structure, so I think the 15 10.4 is 10.4. 16 Right, but for purposes of my question, it is ο. another what you would call a calculation question, 17

The correct, you mean --

18 which is if, I understand that you don't agree with the 19 assumption in the question, but assume for purposes of 20 the question that you use a 27% equity and you do the 21 math, do you disagree with Mr. Gorman's calculation that 22 that translates into a 12.88% ROE?

A. The calculation results in -- I haven't
looked at the -- I know Mr. Gorman to be an engineer,
and engineers don't usually makes mistakes about things

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Α.

like this, the calculation results in 12.88, but that is 1 2 to the allowed return, the allowed return is 10.4. 3 Ο. I understand that's your position. 4 In February of this year, the Washington Commission issued an order involving Puget Sound Energy. 5 This was a case in which the cost of capital issues was 6 7 very prominent. Have you had occasion to read the Puget 8 decision? 9 I have, I have it with me. Α. 10 Ο. Are you aware then in the Puget case that the 11 Staff's cost of capital witness, Dr. Wilson, opposed 12 giving Puget an equity ratio based on what was termed 13 phantom equity costs? 14 Α. Yes, I read that that's what John said. 15 That's a term I have heard him use many times. 16 ο. The Commission concluded in the Puget case that the correct outcome was to exclude the negative 17 18 equity of PSE's unregulated subsidiaries so as to 19 isolate and focus on the regulated utility operations; 20 do you recall that? 21 Α. I don't know if I agree with your 22 characterization. They chose to look at the utility and 23 assign a utility capital structure, which was I believe 43% or 45%. I have to refresh my recollection about 24 what the finding was in terms of what they allowed. 25

Q. Well, if you turn to page 17 of that order,
about midway through you see a statement from the
Commission that says that:
We modify Staff's approach as supported
by Dr. Wilson's analysis by applying
that approach to the actual 12 months of
the rate year and by excluding the
negative equity of PSE's unregulated
subsidiaries so as to isolate and focus
on the regulated utility operations.
Do you see that?
A. That's correct, and then the next sentence
has the 43% that I remember.
Q. That's correct. If the Commission were to
adopt the 40% equity level here in the settlement
agreement, wouldn't that decision be at odds with the
Commission's very recent decision in the Puget case?
A. No, I think it would be consistent. Because
in the Puget case, you have a utility with a higher bond
rating in a case when interest rates were significantly
lower than they are now, and you allow a 10.3 with a 43%
equity. I think allowing a 10.4 with a 40% equity for a
utility that's demonstrably more risky in a higher
interest pie and rising interest rate environment, I
think 10.4 is certainly consistent with the 10.3 allowed

1 in February.

2 Q. Did you review Avista's 10-Q which is dated August 5, 2005? 3 4 I probably -- I don't have it with me, but I Α. reviewed a number of their 10-K's and 10-Q's if you 5 would -- so I may have, I don't have it with me. That's 6 not one of the exhibits, is it? 7 Q. No, it's not. We'll try to -- I have some 8 general questions and we'll do it subject to check, and 9 10 I think we can get through without trying to disrupt 11 the --12 MR. MEYER: I think it would be helpful 13 though if my witness could have a copy of that in front 14 of him. 15 JUDGE CAILLE: Ms. Davison, do you have a 16 copy that the witness could use? 17 MS. DAVISON: Well, that was my point earlier when I mentioned to you that I only have my one copy. I 18 can make copies, we can take a quick break and I can 19 20 make copies or --21 MR. MEYER: I have a copy here I can hand --22 we were able to get one from our files. 23 JUDGE CAILLE: Thank you. MR. MEYER: Let's make sure it's for the 24 right period, again what period was that? 25

1	MS. DAVISON: It is filed on August 5, 2005,
2	for the period ending June 30, 2005.
3	MR. MEYER: That's it.
4	BY MS. DAVISON:
5	Q. Is it correct subject to check that Avista's
6	net income increased from \$19.9 Million in 2004 to \$37.4
7	Million in the six months ending June 2005?
8	MR. MEYER: Can you give us a page and a
9	MS. DAVISON: Page 41.
10	A. So the numbers you were referring were what,
11	please?
12	BY MS. DAVISON:
13	Q. My question is, isn't it correct subject to
14	check that Avista's net income increased from \$19.9
15	Million in 2004 to \$37.4 Million in the six months
16	ending June 2005?
17	A. Well, I don't see that quite yet, but I will
18	accept it. I mean if those numbers are derived from
19	this page, I will accept it for present purposes.
20	Q. Avista's 10-Q shows that the regulated
21	operations are having significantly improved earnings
22	while the unregulated side is suffering losses; isn't
23	that correct?
24	A. Well, I think it mentions a net loss of \$.3
25	Million for energy marketing and resource management.

MR. MEYER: Your Honor, if it would be of 1 2 some assistance, we have a following witness this 3 morning, Mr. Malquist, our CFO, who to the extent that 4 we're going to go much beyond the questions here on the 10-Q would be perhaps a better witness to speak to that. 5 MS. DAVISON: Well, I'm certainly happy to 6 7 ask Mr. Malquist these questions, but I also think that 8 very, very basic questions about the earnings of Avista 9 would be something that Dr. Avera would have looked at 10 and would be informed to talk about. 11 MR. MEYER: But these are not very, very 12 basic questions, these are specific questions about 13 specific figures in an exhibit that he's just now 14 refreshing his recollection on. 15 JUDGE CAILLE: Well, I don't think it's an 16 exhibit actually yet.

Perhaps we could defer these questions to
Mr. Malquist and you could have an exhibit ready for the
Bench and Mr. Malquist.

20 MS. DAVISON: Very well.

21 BY MS. DAVISON:

Q. I would like to follow up though, there was a point that you made in responding to Mr. ffitch's question about this equity issue, and you stated that you believed something to the effect that rate payers

were significantly benefiting from this consolidated capital structure; is that correct?

3 Α. I believe rate payers get the benefit of the equity that the consolidated capital structure has, 4 because I think they look to that in terms of the 5 security for the bonds, and there is also the benefit of б diversification that comes from having other businesses. 7 I think there have been times when the utility was 8 9 having difficulty and the other businesses were able to 10 furnish significant cash. I understand that the energy 11 marketing has been a source of significant cash over the 12 last several years. Looking at the Standard & Poor's 13 review of Avista, there is discussion of the benefits of 14 the energy marketing. So I think customers do benefit 15 from the total corporation.

Q. Is it your testimony that customers are currently benefiting from Avista's \$257 Million invested in equity in the unregulated businesses that have a year to date loss of 17 cents per share?

A. Well, I think the investment community obviously looks to the future, and they realize that circumstances come that generate losses in the energy operation and other circumstances the energy operation is generating gains. And that is the essence of diversification, that you don't have all of your eggs in

one basket, and when the utility is under stress, the 1 2 energy marketing operation can provide cash flow and 3 resilience. Conversely in a circumstance like the 4 recent six months where the energy has not been as profitable as it had been the last several years, the 5 utility is there. That's the nature of diversification, 6 7 that one business is doing relatively well while another 8 business is doing relatively poorly.

9 Q. I understand that that's your position, but 10 my question was very specific. My question was whether 11 today based on this \$257 Million in equity in the 12 unregulated businesses that have a year to date loss of 13 17 cents per share whether today rate payers are 14 benefited by that?

15 Yes, and my answer is yes because rate payers Α. 16 are insulated from the losses of the unregulated subsidiaries. That doesn't change their rates, but they 17 18 get the benefit of the equity and the benefit of 19 diversification when Avista has to go to the capital 20 markets to raise money or to refinance their debt. So 21 customers today are benefiting because of the corporate 22 structure that creates financial resilience, that the 23 customers know that their utility will be in a position 24 to raise capital going forward.

25 Q. But isn't it true that the only way that

customers are really benefiting from this high level of 1 2 equity investment in the unregulated operations is if 3 the unregulated operations provide cash flow? 4 No. On a month to month, quarter to quarter, Α. six month to six month basis, they will provide cash 5 6 flow or not depending on the business conditions of the 7 individual businesses. The benefit to the customer is 8 that the entity of Avista Corporation is better able to 9 weather storms like it had to weather in the last 10 several years in the power supply markets and whether it 11 is able to access capital markets on a reasonable basis. 12 And in those terms, the equity invested in the 13 unregulated businesses is a benefit to customers.

Q. Dr. Avera, are you familiar that Standard & Poor's specifically evaluates the cash flow that is being generated from these operations when it issues its ratings?

18 Yes, Standard & Poor's uses what's called a Α. 19 consolidated approach to bond ratings where they look at 20 the parent's businesses and consider the characteristics 21 and the risk of all the businesses in determining the 22 ratings that they assign to the securities issued by the 23 company. So Standard & Poor's considers the unregulated businesses as well as the regulated businesses when they 24 assign a bond rating to Avista securities. 25

Q. So if the unregulated operations are not
 making money, they have no cash flow coming in, they are
 not in effect supporting the credit rating that Avista
 currently has; is that correct?

That is not correct. The bond rating 5 Α. 6 agencies are sophisticated. They know that month to 7 month, quarter to quarter, even year to year different businesses experience good times and bad times. 8 The 9 bond rating agencies, and Standard & Poor's in its bond 10 rating guidelines goes to great extent of they take a 11 long-term view of looking over the course of several 12 years into the future. Because they have an awesome 13 responsibility to investors, people who are investing in 14 the securities, mutual funds, insurance companies, 15 foundations, government agencies rely on those bond 16 ratings when they're putting real money into real bonds. So the bond rating agencies say, let's take a long-term 17 18 view of what the risk and prospects of the company are. 19 So they don't look at one quarter or one year, they take 20 a long-term view, and in that long-term view they see 21 the benefit of the equity in the unregulated businesses. 22 Well, if you turn to ICNU Cross Exhibit 67, Ο. 23 that actually isn't correct, is it, Dr. Avera? If you turn to page 3 of that exhibit under the outlook, 24

25 doesn't Standard & Poor's actually say that the stable

outlook assumes that Avista will continue to 1 2 aggressively pay down debt and avoid making further 3 capital investments in unregulated businesses? 4 That is correct, but it assumes that the Α. profile is not going to change. But then it talks about 5 6 all of the factors in the next sentence that affect the 7 future ratings and such things as the financial ratios 8 that are currently weak. Well, to the extent that the 9 unregulated businesses contribute to the financial 10 ratios, that is a positive from Standard & Poor's 11 perspective. 12 ο. Well, except if you read the last sentence of 13 this ratings report, it says: 14 Given the relatively stable nature of 15 utility cash flows, downside risk is 16 limited mainly to substantial losses at Avista Energy. 17 18 Isn't that correct? That is correct, that is the nature of the 19 Α. 20 energy business versus the utility business. The energy 21 business has more variability. It has downside losses 22 and it has upside gains. The utility business is more 23 stable. When you combine them together in a portfolio, 24 you have a more stable portfolio. 25

MS. DAVISON: I have no further questions.

JUDGE CAILLE: This seems an appropriate time 1 2 for us to take our morning break. How about if we come 3 back at quarter to 11:00. 4 (Recess taken.) 5 JUDGE CAILLE: I believe we have completed the cross-examination of Dr. Avera by the parties, and, 6 7 Mr. Meyer, do you have redirect? 8 MR. MEYER: I do, Your Honor. During the 9 recess, I distributed a 1 page item that I would propose 10 to mark as Exhibit 75. I believe that's a reserved 11 number, and this would be the omitted page from the 12 Roger Morin exhibit, Exhibit 74, that had been 13 referenced earlier, and I would propose therefore that 14 we mark page 250 from the excerpted text which I 15 distributed as Exhibit 75. 16 JUDGE CAILLE: It is so marked. 17 Is there any objection? MR. FFITCH: Your Honor, we don't have an 18 objection, Public Counsel, we submitted 74, my only 19 20 offer would be that we would be happy to have it be 21 included with the immediately preceding pages and just 22 be part of Exhibit 74, but we'll abide by whatever your 23 preference is. JUDGE CAILLE: Since it's just following, 24 25 let's keep it at 75, thank you.

MR. MEYER: Thank you. 1 And ask that that be admitted. 2 3 JUDGE CAILLE: And that is admitted into the 4 record. 5 MR. MEYER: Thank you. 6 REDIRECT EXAMINATION 7 BY MR. MEYER: 8 9 Q. Just a follow-on question then relating to 10 that newly admitted Exhibit 75, you had referenced 11 certain critiques of the market to book analysis, and 12 those were set forth at the bottom of the preceding 13 page, 249, which is part of Exhibit 74, and it continues 14 on to Exhibit 75, correct? 15 Α. Yes. 16 Just for the record, would you just briefly ο. reiterate what the primary critiques were? 17 18 Yes, the first critique is that there is a Α. mismatch between the market to book that -- and when I 19 20 teach this, I put up market to book and on market I 21 point an arrow forward and on book I point an arrow 22 back. Because what Professor Morin is saying, the 23 market value depends on the future, what investors are buying is the future, so they are projecting what the 24 future returns will be, not what the present or past 25

returns will be. The book value is an accounting
 number, accounting are historical numbers, so they're
 looking backward at what the assets are valued at as
 original cost. So there's this mismatch between the
 time frame of market value and book value.

б The second observation that Professor Morin 7 makes that why you can't apply the market to book 8 approach is that the allowed return does not equal the 9 return that the company will actually be expected to 10 earn, because there are many other things that go into 11 the regulatory framework, disallowances, things like in 12 this case the deadband around the ERM, those affect what 13 the company will actually be able to earn in addition to 14 the specific allowed ROE.

15 The third observation is there are other 16 factors that affect the future earnings of the company, especially a company like Avista where you have other 17 18 activities under the corporate umbrella. You have the 19 energy activities. When investors are setting the 20 market value, they crank in expectations about these 21 other activities as well as the utilities, so they're 22 mixed together in market value.

And then finally there is the issue of
inflation. Because book values are measured on
historical bases and we live in an increasingly

inflationary economy, the relevant asset values are 1 2 generally higher than book value. So if we look to 3 market book relationships, book is not measuring what 4 our true asset values are, so there is a mismatch there. 5 So those are the four reasons that Professor 6 Morin says that in theory the market to book follows, in 7 practice it does not. MR. MEYER: Thank you, and that completes my 8 9 redirect. 10 JUDGE CAILLE: Chairman Sidran? 11 12 EXAMINATION 13 BY CHAIRMAN SIDRAN: 14 Ο. Dr. Avera, I understand you conducted your 15 analysis in the January-February 2005 time frame, and 16 you have testified here today and in your filed 17 testimony about investor expectations of the future. I 18 would like to ask you if the course of events since you did your analysis, \$3 a gallon gasoline, the hurricanes 19 20 in the Gulf Coast, the passage of the Federal Energy 21 Policy Act, whether those factors and the performance of 22 the stock market since the first of the year in terms of 23 returns of market overall versus returns of the utility sector, whether those factors would in any way change 24 25 your opinion in relationship to your analysis, and if

1 so, how?

2 Α. Well, I think those factors in total 3 generally argue toward higher required rates of return. 4 I think the energy cost is what's driving inflation. The expectations of inflation is what's driving the 5 6 expectations of higher interest rates. The 7 discontinuity that the hurricanes and the events in the 8 world have created I think have increased the general level of uncertainty. I think the Energy Act, although 9 10 it has many favorable features for the utility industry, 11 is an element of risk because it's not exactly clear how 12 the new Energy Act will be implemented. In fact, in 13 their August edition, the Value Line for the Western 14 utilities talks about the extra risk that the Energy Act 15 imposes on utility investors. So I think on balance 16 between February and January, which are the numbers 17 reflected in my direct testimony, we're looking at a 18 likelihood that required returns if anything have 19 increased and certainly not appreciably decreased. 20 What we have observed earlier in the period 21 utilities were relatively strong, they were 22 outperforming the market, but in recent weeks utilities 23 have been relatively weak. For example, Avista in 24 August was close to \$20 a share, yesterday it closed at 25 \$18 a share. I think many other utilities have

1	similarly experienced revaluation downwards in the last
2	several weeks as these uncertainties have become more
3	manifest. So that's why I didn't feel a need to
4	specifically revise my opinion, because my direct
5	testimony indicates that returns are generally
6	significantly higher than 10.4, and I think events since
7	then just strengthen that conclusion.
8	CHAIRMAN SIDRAN: Thank you.
9	JUDGE CAILLE: Any other questions?
10	
11	EXAMINATION
12	BY COMMISSIONER JONES:
13	Q. Good morning, Dr. Avera.
14	A. Good morning, Commissioner Jones.
15	Q. Just like to go back to parts of your
16	rebuttal testimony if you could. I'm sure you have it
17	in front of you.
18	A. Yes, sir.
19	Q. This follows on the Chairman's question on
20	changes during 2005, and I just want to confirm for the
21	record that you, since you submitted your original
22	prefiled direct testimony, that you stand by the
23	conclusions on ROE stated in that direct testimony, and
24	that reflects the conclusions for your cost of equity
25	estimates using four approaches as stated an page 44

ranging from 11.5 to 11.8, well 12.6% on the cost of 1 2 equity estimates. 3 Α. Yes, sir, I think that those are still 4 operative in today's environment. Has there been anything that would cause you 5 Q. 6 to revise upward or revise downward those estimates, 7 and, well, please address that one first. 8 Α. Well, I think the interest rate environment has become one of greater upward pressure. I think the 9 10 continued action by the Federal Reserve to raise 11 short-term rates, I think there have been five increases 12 since I originally filed my testimony. Initially 13 long-term rates did not respond, but more recently they 14 have. I think if you look at and as investors look at 15 the federal budget deficit created by the cost of the 16 war in Iraq and the rebuilding of the Gulf Coast from 17 Katrina and Rita, I think the interest rate environment 18 has gone higher. And while cost of equity do not move in lock step with interest rates, I think they move 19 20 generally in the same direction. So the fact we're

21 moving into a higher interest rate environment would 22 suggest that the cost of equity is also trending upward. 23 Q. And on that point, do you generally believe 24 that GDP growth is also on an increasing path, that the 25 Fed is looking at increasing rates of GDP and tightening

down on monetary policy in order to --1

2 I certainly think so. The minutes that have Α. 3 been released of the recent meetings suggest that the 4 Feds think that the dislocations from the hurricanes has been temporary and that in fact as we move into 2006 the 5 6 rebuilding will create a demand drive to higher levels 7 of GDP growth. So I think that would cause the Fed to 8 err on the side of tightening monetary policy, because 9 they think inflation is the greater risk than economic 10 weakness.

11 Ο. Would you turn to page 4 of your rebuttal 12 testimony, and I would just like to confirm that you 13 stand by the statement there where you say: 14 Do the interveners' ROE recommendations 15 meet the threshold test of 16 reasonableness required by established regulatory and economic standards 17 18 governing a fair rate of return on equity? Based on the evidence discussed 19 20 subsequently, the answer is clearly no. 21 Do you still stand by that statement even 22 after -- and for the record you have in your rebuttal 23 done an extensive analysis of Mr. Hill's testimony and 24 Mr. Gorman's testimony, correct? 25

I have, and I believe that the problems that Α.

I point out with their testimony and the downward bias 1 2 is sufficient to convince hopefully the reader that 3 their 9.25 and 9.8 respectively do not meet the Hope and 4 Bluefield Test, would not be sufficient to attract capital and maintain investor confidence, and are not 5 6 equivalent to returns of comparable risk. 7 So when you talk about the test of Ο. 8 reasonableness required by "established regulatory and 9 economic standards, " you're referring primarily to Hope 10 and Bluefield?

A. Yes, sir, I am, the three, capital
attraction, comparable earnings, and financial
integrity.

Q. Elsewhere in your rebuttal testimony you quote that there is a small minority of utilities that still belong to the below investment grade status for unsecured credit, a corporate credit rating. Could you give us an idea by percentage or number of utilities, of course you didn't use any of those in your proxy group, did you?

A. No, I did not. They were specifically
excluded, and I think we're probably talking seven or
eight that are below investment grade. Some of them are
relatively small, but certainly we have West Star,
Sierra Pacific, El Paso Electric recently regained

investment grade status, did I mention West Star is 1 2 below, so presently we're probably in the seven or eight 3 of which Value Line may follow four or five. 4 And that is out of how many publicly listed Q. electric and gas utilities in the United States? 5 Well, publicly traded, major publicly traded 6 Α. are probably 130, and I believe about 67 are followed by 7 8 Value Line, so we're talking less than 10%. 9 JUDGE CAILLE: Excuse me, just for the 10 record, Commissioner Jones's questions have been 11 referring to Exhibit 62, which is the rebuttal testimony 12 of Mr. Avera. 13 COMMISSIONER JONES: Thank you, Judge. 14 BY COMMISSIONER JONES: 15 Back to the market book line of questioning, Ο. 16 I must admit I have a difficult time getting my head around this issue of the price of an asset, a utility 17 18 stock if you will, and the market capitalization and the relationship to ROE, and I have read several documents 19 20 that indicate there might be a correlation between 21 market to book and ROE if you observe that over a 22 significant period of time, going back historically of 23 course is what I'm referring to. Have you ever observed 24 that there is a correlation, if any, between an M/B and an ROE ratio actually earned? This is an actually 25

1 earned ROE for a publicly listed utility.

2 Well, I think in the past when utilities --Α. 3 when utilities were more homogenous and they were 4 largely regulated and expected to remain regulated, let's say in the late '70's and early '80's, there was a 5 general correlation, very rough, but a general 6 correlation between the allowed and earned returns and 7 8 the market to book ratio. Generally during that period 9 market to book ratios were less than 1 because you had 10 the nuclear issues and rapid construction, and that was 11 a time of energy price fly up as well. So during that 12 period of time, there was a very rough correlation. 13 Since then I don't think the correlation has held up, 14 because a lot -- the utility business has become a lot 15 more complicated, you don't have pure play utilities any 16 more, and the environment has become more dynamic. Could you turn to page 16 of your testimony, 17 Ο. your rebuttal. 18 19 COMMISSIONER JONES: Judge, that's 62. 20 JUDGE CAILLE: That's 62. 21 BY COMMISSIONER JONES: 22 This gets into the issue of dividend Q. 23 taxation. 24 Α. Correct. And as we all know, Congress changed the law 25 Ο.

1 on dividend taxation to lower the long-term capital 2 gains rate on "qualified dividends" to 15%; is that 3 correct?

4 A. Yes, sir.

5 Q. Speaking generally, don't you, I understand 6 your testimony here that you list two reasons why this 7 may not have an impact on the investors' required rate 8 of return, but just on its face, doesn't this increase 9 the attraction of higher dividend paying stocks such as 10 utilities?

11 Α. It certainly does for taxable investors, and 12 I think it was a significant event. But I think in 13 terms of how it affects the methodologies and the 14 application of the methodologies, to determine the cost 15 of equity you have to consider that first a large number 16 of the investment dollars and certainly the marginal dollars are from non-tax paying accounts, individual 17 18 retirement, 401-K, pension, and profit sharing, that's a 19 predominant amount of the marginal investment. For 20 example, in mutual funds 60% of the new funds flowing 21 into mutual funds is nontaxable accounts, and they only 22 account for 24% of the total nontaxable accounts in the 23 economy. The total nontaxable accounts are probably \$9 24 Trillion at present. So there's a nontaxable issue, and then there's also the fact that this change had been 25

largely anticipated and is reflected in the market
 prices we use for example in the DCF model.

Q. So have you incorporated that change in dividend tax policy both in your forward looking CAPM approach and in the DCF approach that you used in your prefiled direct testimony?

7 I believe I have, because in those cases I Α. used the observed market prices of in the DCF utilities 8 9 stocks and in the forward looking CAPM the stocks in the 10 Standard & Poor's 500, so those market prices reflect 11 what investors are considering when they buy and sell 12 the stocks. So to the extent that the dividend tax cut 13 is relevant to investors, it is reflected in those 14 market prices.

Q. Can you quantify at all the impacts in percentage points in basis points that this has had either in the -- I think for the DCF you estimated a 9.8%, is that correct?

19 A. That's correct.

20 Q. And in your forward looking CAPM you

21 estimated 12.6%, correct?

22 A. Yes, sir.

Q. Would roughly 50 basis points of that be attributable to this change in dividend policy or not; do you have any estimate on that?

A. I would hate to hazard an estimate while I'm
 here on the record.

3 Q. Okay.

A. Yeah, I don't think it's a big number, I
think we're talking basis points, not hundreds of basis
points.

7 Q. I understand.

There's been a lot of academic research. 8 Α. In fact, Merton Miller, who is one of the Nobel Laureate, 9 10 did a tracking on death and taxes where he basically 11 reached the conclusion that it's extremely difficult to 12 quantify the tax effect in the capital markets, because 13 you have this mixture of taxable and nontaxable 14 investors.

Q. Referring to your forward looking CAPM approach, can you explain to me why you use the S&P 500 estimate of earnings as the basis for your earnings growth? I think the number you use in both forward looking and backward looking CAPM is 12.1%?

A. Well, I think I use a higher -- the 12.1 in the forward looking is based on the bottoms up IBIZ numbers estimates, and let me explain why first I used the Standard & Poor's 500. I used the Standard & Poor's 500 for both the forward looking and backward looking. The Standard & Poor's 500 are the 500 largest companies

by market capitalization in the economy, Exxon being 1 2 right now the largest, General Electric, General Motors, 3 et cetera. These represent the bulk of the market value 4 of the total stock market. The theory of the CAPM is that you should use a market basket of all the stocks. 5 6 Well, that is hard to measure all the publicly traded 7 stocks. If you take the 500 largest, you've gotten the bulk of the -- accounted for the market value. 8

9 Now there's another reason in the forward 10 looking to use the Standard and Poor's 500, and that is 11 those companies are the ones that are most widely 12 followed by professional investment analysts. And what 13 we did to estimate what investors required from those 14 companies is we went to each of those 500 companies and 15 what the analysts that follow those companies are 16 projecting for five years earnings growth rates. So we're using literally thousands of expert opinions of 17 18 analysts, you know, the analysts who devote their lives to following General Motors or devote their lives to 19 20 following General Mills or Microsoft or Dell, and their 21 best estimate of the growth. So by using the Standard & 22 Poor's 500, we have a very rich set of data involving 23 lots of independent analyst inputs, so that's why I 24 thought it was the best approach to get an estimate of what investors require for the total market. 25

1	Q. So that is significantly different than the
2	comparable earnings approach or looking back on
3	historical growth rates for utility firms when you look
4	at a proxy group of utilities, correct?
5	A. This is correct, we're looking at a group of
6	the 500 largest companies by market capitalization, and
7	we're looking forward. We're looking exclusively at the
8	earnings projections that those analysts who
9	specifically follow those companies have submitted.
10	Q. And it's based on earnings, it's not based on
11	dividend yield, it's based on total earnings expected?
12	A. That is correct.
13	Q. Future looking?
14	A. Because that's the magnitude that investors
15	focus on. And as I explain in my testimony, the
16	research on investment behavior suggests that investors
17	focus on earnings, because it is earnings that form the
18	ultimate ability for stockholders to get out cash either
19	in dividends or in capital gains.
20	Q. What would be the general impact if you do
21	testify, which you have, that we are in a generally
22	rising interest rate environment, the long-term treasury
23	bond yield by definition would go up I would think, what
24	would a rising interest rate environment if you had to
25	redo the calculations today have on these estimates of

1 cost of equity, the four plus the DCF that you have
2 provided?

A. Well, in terms of the risk premium, I have my notes here, I used a 4.6% 20 year treasury for the CAPM. The current treasury is 4.77, so that's basically 17 basis points higher. It's projected to go even further. So the way the CAPM works, every basis point change in the interest rate is a basis -- translates to a basis point change in your cost of equity estimate.

For my risk premiums I used a B double A bond yield of 5.95. The most recent is 6.12. That's -- it happens to be another 17 basis point increase, so that 17 basis point increase would translate directly into the estimate of the cost of equity from those risk premium approaches.

16 Now for the DCF, it is not so simple, because the DCF you don't look specifically at interest rates, 17 18 you look at stock prices and dividend yield and apparent growth rates. But what we do know is that for the 19 20 utilities generally the stock prices have been weak in 21 the last several weeks. As I mentioned, Avista has gone 22 from around 20 to around 18. We have similar drops for 23 other utilities. Since utilities are what are called 24 interest rate sensitive stocks, higher interest rates are generally bad for the utilities, and utility 25

equities generally drop as interest rate expectations increase and vice versa. So while I haven't redone the DCF's, my belief is that we would have lower prices and therefore higher dividend yields across the board, which would suggest higher DCF results.

Q. In your rebuttal testimony you quoted a study
that I haven't seen before in any financial literature,
and that's CA Turner, and I think it was in the context
of looking at Mr. Gorman's comparable proxy group where
you were examining the authorized ROE and came up with a
10.95% number; is that correct?

12 A. Yes.

Q. You quoted, can you just tell me who CA Turner is and how widely used they are, because I'm not familiar -- I'm familiar with Value Line and Standard & Poor's and groups like that.

17 Well, CA Turner is a service that's been Α. 18 around a long time. It is very specific generally to the utility area, and it was a service that was 19 20 subscribed to by utilities management, particularly of 21 smaller -- it has extensive coverage of say water 22 utilities that are not covered by Value Line. So it has 23 a lot of information on smaller companies. It has recently been purchased by AUS Utilities or Associated 24 Utilities Services, which is a consulting firm, which is 25

1 trying to increase its profile in the community.

2 My experience with CA Turner, I do not use CA 3 Turner in my work because my experience is that a lot of 4 the numbers are hard to reconcile. As I mentioned in my rebuttal, Hawaii Electric, CA Turner reports a capital 5 6 structure that is demonstrably different from what you 7 derive from the 10-K reports. So it's a service that some experts in this field use, and it is especially 8 9 useful when you have a small company that isn't covered 10 by Value Line or the larger publicly available services.

11 Ο. This is my last sum-up question, could you 12 just describe, you have taught finance for many years 13 and regulatory economics, when you teach your students 14 about regulatory economics, you must describe the 15 strengths and weaknesses of each of these approaches, 16 CAPM, DCF. Since DCF has been traditionally used by commissions across the country, not exclusively but in 17 18 many cases, can you, and as a new commissioner, could 19 you just describe the strengths and weaknesses of the 20 DCF approach. I think in one part of your testimony 21 criticizing Mr. Gorman's, Mr. Hill's analysis, you 22 called it "a blunt instrument" or something to that 23 effect, but could you be a little more specific and talk 24 and summarize briefly.

25

A. The DCF has the great benefit of being simple

and straightforward because I think most people are 1 2 familiar with the concept of a dividend yield, and 3 they're familiar with the concept of a growth rate. If 4 you watch CNBC for 15 minutes, you will hear those terms over and over. So it uses two very familiar terms to 5 6 construct a cost of equity estimate, so it has the 7 benefit of being familiar, I think it has the benefit of 8 being transparent. I think commissions when they're 9 evaluating testimony or they're reaching conclusions can 10 kind of break it down and say, let's talk about the 11 dividend yield portion and how each witness did dividend 12 yield and who we agree with most, and let's talk about 13 the growth rate and how each witness did the growth rate 14 and which ones we agree to. So it's extremely well 15 suited for a regulatory setting, an administrative 16 setting where you have to have findings of fact and you have to have transparent decisions. 17

18 The disadvantage of DCF is that it is largely 19 driven by an unobservable magnitude, which is what 20 investors expect in terms of growth when they pay \$18 21 for a particular stock. There's no place we can go for 22 the definitive non-controversial answer to that 23 question. What we have to do is kind of put ourselves in the moccasins of investors and think like investors 24 think and read what investors read, look to places like 25

Value Line that we know investors pay a lot of attention 1 2 to, look to things like the IBIZ growth rates that we 3 know investors pay a lot of attention to, look to 4 historical track records that we know investors look to, and then try to replicate what investors are thinking. 5 б Now the DCF works tolerably well most of the 7 time, and it worked especially well historically in the 8 utility industry where it was a relatively stable 9 industry where growth was pretty much driven by 10 regulatory decisions. I think the DCF served regulators 11 well, and as I grew up in the regulatory world I relied 12 heavily on the DCF both when I was on the commission and 13 as an expert testifying before commissions. I think as 14 we move through time and the world has become more 15 dynamic, pure play utilities have become the rarity 16 rather than the predominant mode of operation, I think the DCF has become harder and harder to apply. So I 17 18 think these other methods have become increasingly important. It's not just a check of reasonableness but 19 20 also an alternative when you have reasonably the DCF is 21 giving unreliable results, high or low. So it is a good 22 first start, but it must be accepted carefully and in 23 light of an informed look at what's going on in capital 24 markets.

25

COMMISSIONER JONES: Thank you, Judge.

JUDGE CAILLE: All right, anything more for 1 2 this witness? 3 COMMISSIONER OSHIE: Yes. 4 JUDGE CAILLE: Commissioner Oshie. 5 6 EXAMINATION BY COMMISSIONER OSHIE: 7 Commissioner Jones had a few more questions 8 Ο. 9 than I did, so I thought I would let him go ahead of me. 10 I just have a couple areas of questioning, Dr. Avera, 11 and I guess first I want to talk to you about the 12 capital structure and some of the testimony that you 13 have given here this morning as to the benefits that the 14 rate payers receive from imputing the capital structure 15 of the corporation to the utility. And if I remember 16 your testimony correctly, that there were two benefits 17 that you at least observed and have a judgment, have

18 made judgment about, which is one is that imputing the corporate -- the capital structure of the corporate 19 20 entity to the utility brings diversity to the corporate 21 structure, which is an overall benefit since the 22 marketplace looks at the corporate entity, not just the 23 utility, and because there's additional equity in the affiliate companies, that that equity is then imputed 24 25 back to the utility in instruments that are either

purchased or sold in the marketplace. Now am I -- and 1 2 this is a general understanding of your testimony. 3 Α. Yes, sir, that is correct. 4 Okay. Now if we were to accept that, that Q. there are benefits that inure to the rate payer as a 5 6 result of the diversity of the corporation and the capital structure, essentially the actions of the 7 8 affiliate and the performance of the affiliates, if we 9 accept that proposition that that's a benefit to the 10 rate payer, do we also have to accept the corollary or 11 perhaps the converse that if those affiliates do not 12 perform in a manner that the marketplace finds 13 attractive and that it drives the ratings of the company 14 or the equity of the company down, should the rate 15 payers as a result have to bear the risk of that? 16 I don't think they should or have to, Α. Commissioner. I think the Commission, this Commission 17 18 and other commissions that I have seen operate, have the ability to protect customers from adverse consequences 19 20 of activities within the corporate umbrella. 21 Ο. Well, that would be then our action, but I 22 guess in theory if the rate payers get the benefit, I 23 mean in theory shouldn't the rate payers assume that risk as well? 24 25

I don't think they necessarily have to assume Α.

the risk. I think they ought to recognize or the 1 2 Commission in setting rates ought to recognize that 3 equity in terms of calculating the weighted average cost 4 of capital, as is being done here. So I think the fact that the corporation has a 40% equity ratio is something 5 6 that is properly considered in setting rates even though 7 you could go through an allocation and derive a result 8 that the utility has less than 40% equity. And that's why it's my opinion that the claim of cross-subsidy is 9 10 incorrect, because I think the utility customers get the 11 benefit of the equity, and I think it is appropriate 12 that utility customers pay the recognition of that 13 equity when their capital costs are built in to their 14 revenue requirement.

Q. And if the performance of the affiliates then by your testimony reflects negatively upon the corporate issuances of the company, then that should not be -that should not be imputed to the utility and the rate payers then?

A. No, I don't think it should be imputed. I think there should be protections, and I think there are protections. I don't think in this circumstance the downside results of the unregulated activities are reflected in the revenue requirement for the customer, so I think there is a protection built in to the way the

1 regulation is administered.

2	Q. That's all on that line of questioning.
3	The other, just very quickly, one of the
4	criticisms at least that I have heard of the single
5	stage DCF, I'm not sure if it's a method or methodology,
6	I guess single stage would be the method?
7	A. Yes, sir.
8	Q. The single stage method of determining the

9 long-term, you know, performance of a particular equity 10 issuances, is that it's very difficult and perhaps it's 11 to accept the fact that in the single stage analysis or 12 single stage method that you have to assume a growth 13 rate, a growth in the rate of dividend payouts in 14 perpetuity. Now if I understand the method correctly, 15 also that the, you know, the multistage DCF methods at 16 least tend to try to mitigate the impact of imputing in 17 perpetuity a growth in dividend payouts. And so I guess 18 my question to you is, if my understanding is correct, then why did you select the single stage DCF model as 19 20 your preferred model and not the multistage models, 21 which tend to correct for the, as you have noted, a very 22 simple way of performing DCF, which is looking just at 23 those particular factors and including then having to impute a long-term or in-perpetuity growth in the 24 25 dividend payout?

1 Well, I think there are many attractive Α. 2 things about the multistage, and it has been pointed out 3 I presented a multistage model here in 1999. I can take 4 some modest credit for taking the multistage model and selling it to the Federal Energy Regulatory Commission 5 6 before that. But the problem with the multistage model 7 is it presumes you know what investors expect over the 8 horizon. And as the Commission pointed out in 1999, 9 it's really hard to define that over the horizon growth 10 rate. We have very rich information, because security 11 analysts get paid big money, because investors want to 12 know what security analysts see for the next five years, 13 which is about as far as any security analyst is 14 comfortable projecting. So for the multistage model you 15 have to move beyond the specific forecast of security 16 analyst to a more generic approach like the growth in 17 GDP as the Federal Energy Regulatory Commission uses it 18 for gas pipeline cases. But even that, we know that 19 those long-term forecasts have a great deal of error, 20 and we are not sure if that's really what investors are 21 considering when they buy the stock. Now one thing that 22 has come to me --

23 Q. Excuse me, Dr. Avera, but before you go that 24 far, well, is there more error than in the multistage 25 method than there is in the single stage where we know

that there -- that dividends are not going to grow in 1 2 perpetuity? I mean that's certainly the -- I think the 3 -- one of the failures or one of the weaknesses, let's 4 put it that way, of the single stage DCF method. So is that error -- apparently you believe that that error is 5 6 less, presents less risk in the final analysis than the 7 error that you're describing in the multistage analysis? 8 Α. Well, I think whether it presents less risk or not depends on the facts and circumstances. I think 9 10 in the '90's we had a situation where investors believed 11 there was a transition where the utility industry was 12 moving from a regulated industry to a competitive 13 industry. And because they believed that, I think it 14 was reasonable to suppose that their over the horizon 15 growth rate was a general GDP growth rate when utilities 16 would be just like any other company in the economy and 17 on balance would realize the same growth as people 18 expect the economy to grow.

As we have moved into 2005, I think that belief about the transition is over. I don't think investors are thinking that we're moving to a fully deregulated utility industry. I think they're thinking that we are going to continue under some form of regulation, maybe a different form at the wholesale level from the federal government than we have at the

retail level from the individual state commissions. 1 So 2 I don't think it's as easy now to model those future 3 growth rates as it was in the mid to late '90's. 4 In terms of the error though, one of the points is it's not the theory, it's what investors 5 6 really think. It's how investors go about their 7 business of deciding are they going to spend \$18 of 8 their dollars to buy this piece of paper that represents 9 future dividends and future earnings. And to the extent 10 that investors are only looking at and are weighting 11 heavily the next five years that they can see and don't 12 weigh those out years, I think that's the best way to 13 replicate investor expectation. Because one of the 14 things about the out years is not only are they hard to 15 forecast, from a present value basis they don't matter. 16 Because as you apply higher, you know, your 1 plus K to 17 the end term becomes bigger and bigger. Those future 18 cash flows in terms of present value contribute less and less to the discounted cash flow value of the stock. So 19 20 I think just looking at the forecast that we have for 21 five years and assuming those will go into perpetuity, 22 we really doesn't do a whole lot of violence to the way 23 investors are presently making decisions.

24 COMMISSIONER OSHIE: Thank you very much.
 25 JUDGE CAILLE: Anything further for this

1 witness? 2 Thank you very much, Dr. Avera, you are 3 excused. 4 THE WITNESS: Thank you, Judge. 5 JUDGE CAILLE: And, Mr. Gorman, if you will 6 please take the stand. 7 (Witness Michael Gorman was sworn.) JUDGE CAILLE: Thank you. 8 9 Ms. Davison. MS. DAVISON: Thank you, Your Honor. 10 11 12 Whereupon, 13 MICHAEL GORMAN, 14 having been first duly sworn, was called as a witness 15 herein and was examined and testified as follows: DIRECT EXAMINATION 16 17 BY MS. DAVISON: Q. Would you please state your name for the 18 record, please. 19 20 Α. My name is Michael Gorman. 21 Q. And by whom are you employed? 22 Brubaker & Associates. Α. 23 Q. Are you the same Michael Gorman who has 24 submitted prefiled direct and rebuttal testimony in this 25 case?

1 I am. Α. 2 ο. Do you have any changes or corrections to 3 your testimony? 4 I do. In my direct testimony, Exhibit 331 --Α. 5 JUDGE CAILLE: Mr. Gorman, would you hold on just a moment, please. 6 7 Okay, I believe we're ready here. 8 Α. Okay, let me correct, it's actually a schedule attached to my direct testimony, Schedule 334, 9 10 which is listed as Exhibit MPG-4, on line 16 under column 2 --11 12 JUDGE CAILLE: Excuse me just a moment, that 13 is Exhibit 334 for the record. 14 Α. On line 16 under column 2, the bond rating 15 Baal should be struck and the bond rating Baa3 should be 16 inserted, and those are -- that completes my 17 corrections. 18 If I were to ask you the same questions 0. today, would your answers be the same today? 19 20 Α. Yes. 21 MS. DAVISON: Your Honor, I would like to 22 move the admission of Exhibits 331 through 347. 23 JUDGE CAILLE: Is there any objection to the admission of Exhibits 331 through 347? 24 25 Hearing none, those are admitted.

1	And I believe Mr. Meyer
2	MR. MEYER: Yes, given the ground that's been
3	covered already through our witness, Dr. Avera, we have
4	no cross, we're prepared to waive cross.
5	JUDGE CAILLE: All right.
6	Commission Staff?
7	MR. TRAUTMAN: We have none.
8	JUDGE CAILLE: All right.
9	Commissioners, do you have any questions of
10	Mr. Gorman?
11	Well, then, thank you, Mr. Gorman, you're
12	excused I guess, thank you very much.
13	
14	EXAMINATION
15	BY COMMISSIONER OSHIE:
16	Q. Mr. Gorman, just very briefly I wanted to ask
17	you about your comparable group that you used in your
18	analysis. And, you know, it, when I read your
19	testimony, it struck me that you had used for the
20	electric utility essentially a group that was comprised
21	of electric utilities, and Avista is of course comprised
22	of two sides of the house, electric and natural gas.
23	And so my question is very general, it's why you
24	selected as for your group of comparable utilities
25	electric utilities only, or perhaps it's just the way

you have labeled them, that they do have a natural gas
 business as well.

3 Α. Well, I selected a group which I thought reasonably proxied the total investment risk of Avista. 4 Avista's largest utility segment is electric. They do 5 have a gas also. But the problem in selecting companies 6 7 which perfectly match investment characteristics is that 8 it's simply not possible in today's marketplace. The 9 publicly traded companies that are followed by the Value 10 Line investment surveys which are predominantly electric 11 utilities also have other businesses that exhibit 12 greater risk than do regulated operations. Generally 13 speaking, regulated operations are widely perceived by 14 the marketplace as being very low risk, highly 15 predictable operations. And gas utilities in particular 16 have a variety of different mechanisms, regulatory mechanisms, and affiliates which go into providing not 17 18 only the pipe service and sales gas service but also 19 many downline activities for the benefit of large 20 customers and other business elements. So for those 21 reasons, I felt that the companies that were followed by 22 the Value Line investment survey characterized generally 23 as electric utility companies provide adequate proxies for total risk for Avista, recognizing it has both 24 electric and gas operations. 25

1 I would like to ask you, and thank you for Ο. 2 your answer, the same question really that I asked 3 Dr. Avera as to, you know, the differentiating between 4 the single stage DCF model and the multistage model and whether you have a similar belief as he does that single 5 6 stage while simpler presents less risk than the 7 multistage model for determining long-term expectations 8 of investors?

9 I agree with Dr. Avera that the objective of Α. 10 a DCF model is to try to capture the expectations of 11 investors, and it's reasonable to believe that investors 12 make rational investment decisions. So with that as the 13 foundation, in selecting whether or not a constant 14 growth model or multistage model is appropriate, one 15 could reasonably look at the investment fundamentals of 16 the industry and the companies in particular.

17 Currently the constant growth model is a superior model to the multigrowth DCF model, and the 18 19 reason that is is because the financial metrics of the 20 underlying industry and the companies in particular 21 support the mathematical assumptions made for the 22 constant growth model. In a constant growth model, it's 23 believed that dividends and earnings and book value will 24 all grow at a constant rate into perpetuity. What has to happen for that to achieve? Well, the earnings --25

the percent of dividends paid out as earnings has to be a reasonable target level for the utility. That is the payout ratio can't be abnormally high, can't be abnormally low, it has to be about where one would expect the utility industry to be. Consequently the payout ratio is poor at a constant growth and utility dividends and earnings throughout time.

8 A second parameter is whether or not the 9 dividend itself is too expensive or too cheap and 10 consequently would cause the utility to pay out a 11 greater or smaller percentage of its earnings as 12 dividends. Currently you dividend the book ratios, that 13 is the cost of the dividend to the utility is right 14 around 6% to 7% depending on the utility you look at. 15 With authorized returns on equity dropping down to the 16 10% area and lower now, utilities can afford to pay that dividend, retain enough earnings in order to grow their 17 18 dividends into the future. So from a fundamental standpoint, today's low capital market costs have been 19 20 reflected fundamentally by the utilities and the expense 21 they're willing to undertake in payment of dividends to 22 shareholders. So that's a second reason why the 23 constant growth model is fundamentally sound today where 24 it might not have been in prior periods.

And that I would like to expand on just a

0461

little bit, because in prior periods those assumptions 1 didn't hold. In the early 1990's, the dividend payout 2 3 ratio in the industry was around 90%. That payout ratio 4 had to come down because the utilities simply couldn't retain enough earnings to grow with the dividends in the 5 6 future. It was paying out too high a percentage of 7 earnings as dividends. The dividend to book ratio was 8 around 10% or 11% when their authorized return was 9 around 11% or 12%. There wasn't enough spread between 10 authorized returns and costs of dividends to allow 11 adequate retention of earnings to fund future growth. 12 By retaining earnings, you invest in additional utility 13 plant, which creates additional operating income, which 14 goes down to the bottom line in the greater standing of 15 which funds -- greater earnings, which allows the 16 utility to increase their dividend going forward. So 17 fundamentally ten years ago the multistage model had 18 some appeal because the mathematics of the utilities' 19 financial metrics simply didn't support the constant 20 growth assumption. That's not the case today. 21 I want to follow up very briefly on the Ο. 22 testimony that's given by Dr. Avera and just to, you 23 know, actually get your opinion, because it was a little 24 bit different, at least I understood his testimony to be

a bit different than his written testimony in that the,

0462

and I'm getting back to the, just to be clear, the 1 2 capital structure and imputing the 40% capital structure 3 to the utility where that equity does not exist at this 4 present time. And just to summarize, and you have been sitting here all morning and you have heard him say that 5 6 because of the positive impact that the affiliates have 7 on the corporate structure as a whole, either from 8 earnings that have been distributed to the parent and 9 it's the impact upon the outlook of the company as a 10 result, and also the diversity of the or the diversity 11 of having multiple lines of business as well as the 12 utility, those benefits inure to the rate payer, and as 13 a result that the capital structure of the corporate 14 parent should be used in determining rates at least for 15 this proceeding. So that's his testimony in very 16 general terms as I understand it. I understand from your testimony you have a different opinion, I would 17 18 just like to see if your opinion has changed as a result 19 of hearing his testimony, his cross-examination 20 testimony this morning?

A. It has not changed. My opinion is, and as I understand it the regulatory model is, that the utility's rates should be set on their costs they incur to provide utility service. The cost of making equity investments in unregulated affiliates is not a cost of

providing utility service, so it simply shouldn't be in
 the rate making calculus.

3 Ο. As the corporate parent is the issuer of the 4 debt, isn't that the, and I don't -- how does the -- how would we -- how if we wanted to let's put it, maybe 5 change this question a bit, if we were to exclude 6 7 certain costs that are resulting from the parent's 8 activities for the benefit of the rate payer, and let's 9 use as an example the issuance of new debt, if the debt 10 is rated on a corporate level, how would we go about 11 doing that at the utility level?

12 Α. It would be extremely difficult. I mean you 13 can look at the utility's embedded debt structure and 14 get a sense of just how much that corporate bond rating 15 debt, how much more that costs than the debt that is 16 mortgaged by utility property. There's a dramatic difference in that cost today. So in direct response to 17 18 Dr. Avera that these non-regulated companies are 19 benefiting regulated operations, that completely 20 contradicts the clear evidence that the subordinate debt 21 of the utility costs significantly more than the forced 22 mortgage debt of the utility, far more than one would 23 reasonably expect if you look at the utility without the 24 non-regulated investment risk that this company has, the differential. So there is no real benefit in the debt 25

1	cost calculations, and I strongly disagree with him that
2	there's any benefit at all to the equity investments in
3	non-regulated companies in terms of ensuring the
4	utility's ability to attract capital.
5	COMMISSIONER OSHIE: All right, thank you
б	very much.
7	JUDGE CAILLE: Anything further?
8	
9	EXAMINATION
10	BY COMMISSIONER JONES:
11	Q. Just one question on the equity building
12	mechanism that you listed in your rebuttal testimony, I
13	just want to understand your description and your
14	support or lack thereof for an equity building
15	mechanism. Are you opposed in principle to an equity
16	building mechanism, or are you opposed to this specific
17	equity building mechanism in the joint, in the
18	settlement agreement?
19	A. Well, I'm responding to the settlement
20	agreement as a whole, and the objective of the
21	settlement agreement as I understand is to increase
22	customers' rates in a way that provides the utility
23	adequate cash flow to pay down debt and increase its
24	common equity ratio. The problem with the settlement is
25	that there's no commitment on the part of the company to

actually fulfill its obligation to increase its common 1 2 equity ratio and in part compensate rate payers for 3 having paid rates in what I believe to be higher than 4 this utility's cost of service. There is no commitment to not increase the dividend during the period the 5 6 settlement rates are in effect. It is entirely possible 7 that the company could use this rate increase to fund 8 increases to dividends, which is in direct contradiction 9 to the objective of reducing debt.

10 Now as part of that overall position, one 11 argument I made is that the equity building mechanism 12 doesn't provide any assurance, doesn't provide adequate 13 assurance to customers that if they are required to pay 14 more than this company's cost of service and the company 15 doesn't fulfill its obligation to strengthen its balance 16 sheet and improve its credit rating during this 17 settlement period that there would be penalties imposed 18 on the company that would discourage them not fulfilling 19 their obligation under the settlement. The equity building mechanism is tied to equity targets, not to 20 21 commitments. And to the extent they don't achieve those 22 targets, there's prospective rate changes several years 23 down the road. But the increase in rates the company gets in the interim is all theirs, the additional 24 25 revenue is all theirs.

Q. So you would regard the penalty mechanism, a
 overall rate decease of 1% in I think '07 and '08 - A. Yeah, April of '07 and potentially a second
 one in April '08.

I mean there are two ways that you can 5 Q. 6 motivate parties or a party to do something. One is 7 with incentives, and one is with penalties. So what you 8 are proposing is that the settlement agreement 9 specifically provide both, to keep the penalty in there 10 but provide an incentive as well and to firm up the 11 language so what, the dividends increase, cash flow 12 could not be used to increase dividends?

A. There would be a commitment by the company
not to increase dividends, to use all additional cash
flows produced in this rate order to pay down debt.

16 Q. Have you ever seen an equity building 17 mechanism in any commission around the country that does 18 that?

19 A. There are forms of it in other jurisdictions.
20 In Wisconsin as a state public utility holding company,
21 and as part of that their regulatory commission looks at
22 the financial capital structure of the utility, which
23 includes non-regulated activities if they're inside a
24 utility, and a regulatory capital structure. They set
25 common equity targets for Wisconsin Utilities, and if

the utility does not achieve those targets, then they 1 2 limit the amount of dividends the utility can pay up to its parent company. Now the utility doesn't pay public 3 4 dividends, they pay dividends up to a parent company. Yeah, there is, that is one example of a commission 5 6 being involved in a regulatory overview of the utility's dividend payments. 7 8 COMMISSIONER JONES: Thank you, that's all I 9 have. 10 JUDGE CAILLE: Anything further? 11 All right, now, Mr. Gorman, you are excused, 12 thank you. 13 Let's call Mr. Malquist to the stand. 14 MR. MEYER: During the lunch hour we're going 15 to gather up some additional, we're having sent to us 16 some additional documentation he was going to rely on in 17 light of some of the matters that were deferred to him, 18 but we can go ahead and get him on the stand and mark the exhibits and make the best use of this time. 19 20 JUDGE CAILLE: All right, let's do that. 21 (Witness Malyn K. Malquist was sworn.) 22 JUDGE CAILLE: Thank you. 23 Mr. Meyer. MR. MEYER: Thank you. 24 25

1 Whereupon, MALYN K. MALQUIST, 2 3 having been first duly sworn, was called as a witness 4 herein and was examined and testified as follows: 5 DIRECT EXAMINATION BY MR. MEYER: 6 7 Q. Mr. Malquist, have you prefiled direct testimony in this proceeding? 8 9 A. Yes, I have. 10 Q. And do you have any changes or corrections to 11 make to that? 12 Α. No, I do not. 13 Q. Are you also sponsoring what has been marked for identification as Exhibit Number 32? 14 15 A. Yes, I am. 16 Q. Any corrections to that? 17 Α. No. 18 If I were to ask you the questions that Q. appear in your Exhibit 31, which is your prefiled 19 20 direct, would your answers be the same? 21 A. Yes, they would. 22 MR. MEYER: Thank you. With that, I move for the admission of 23 24 Exhibits 31 and 32. 25 JUDGE CAILLE: Is there any objection to the

1	admission of Exhibits 31 and 32?
2	Hearing none, they are admitted.
3	CHAIRMAN SIDRAN: Mr. Meyer, we have ten
4	minutes, can you do something productive with the ten
5	minutes, or we could take it off the back end and start
6	at 1:15 instead of 1:30.
7	MR. MEYER: Why don't we just proceed to
8	cross. There may be an item or two that Mr. Malquist
9	would like to defer until he has that additional
10	documentation, but I would like to make the best use of
11	the time as well, so I will look to the witness to say
12	that he's at a point at which he would like to have that
13	additional documentation, so proceed to cross?
14	JUDGE CAILLE: Yes.
15	MR. MEYER: Would that be your preference?
16	CHAIRMAN SIDRAN: Yes.
17	JUDGE CAILLE: Mr. ffitch.
18	MR. FFITCH: Thank you, Your Honor.
19	
20	C R O S S - E X A M I N A T I O N
21	BY MR. FFITCH:
22	Q. Good morning, just barely, Mr. Malquist.
23	A. Hi, Mr. ffitch.
24	Q. You were probably starting to think that you
25	might be escaping to lunch.

1 I'm happy to be here. Α. 2 My cross, I think we'll be able to get you Ο. 3 off to lunch reasonably timely. We have, if I could 4 just ask you to turn to your Cross Exhibit 33, and just bear with me a moment while I locate my notes which seem 5 to have -- oh, here we go. That's a response to Public 6 Counsel Data Request 704. I see you're still locating 7 8 it there. 9 Α. I have it, yes. 10 Ο. Okay. And in this request we asked Avista to 11 provide a copy of the most recent bond rating agency 12 reports for Avista Corporation, correct? 13 Α. Yes. 14 Q. And then what's attached are the various 15 reports that you provided us, right? 16 Α. That's correct. And if we go to page 1 of the first report, 17 Ο. 18 that's a Fitch ratings report, right? They have misspelled the name, but that is a Fitch rating report, 19 20 correct? 21 Α. Yes, it is. 22 And this is the -- these generally are the Q. 23 most recent bond rating reports, right? 24 Α. They were at the time that we responded to 25 the data request. I think there's a later S&P report

1 that's out.

2 Okay. Now on the first page or second page Ο. 3 of the exhibit here there's a paragraph or a section 4 with a heading rating rationale, and if you could go down to the third paragraph of that section, and I just 5 6 want to ask you to read the first sentence of the third 7 paragraph, begins the relatively high. 8 Α. Sure. 9 The relatively high business risk 10 exposure associated with Avista Energy, 11 Inc., AE, Avist's wholly owned resource 12 management and energy trading and 13 marketing subsidiary, is a source of 14 concern for investors, particularly 15 given its meaningful projected 16 contribution to consolidated cash flows. All right, thank you. Now can you point to 17 Ο. 18 any place in your testimony or in the proposed 19 settlement where you have explicitly segregated out the 20 effect of the high risk energy trading and marketing 21 subsidiary in computing either the capital structure or 22 the required return on equity for Avista in this 23 proceeding? No, I haven't done that, because if you look 24 Α.

25 at all of the comments on this page, I think the next

sentence is very directly impacted: 1 2 A regionally focused resource management 3 and trading strategy with a relatively 4 short term book mitigates the concern. 5 And so throughout I think all three rating agency presentations, they acknowledge this as a risk, 6 not an insignificant risk, but they also say we have 7 done as much as we can to mitigate the concern such that 8 9 it is one of many factors that impact the bond rating. 10 ο. That's mitigate, not eliminate, correct, 11 Mr. Malquist? 12 Α. Yes, that is true. 13 Q. Now can I get you to turn to page 5, actually 14 just page 2 of the exhibit, and that at the top of the 15 page contains a diagram of the corporate structure of 16 the company, correct, or of the consolidated company? 17 Yes, that's correct. Α. 18 And we can see Avista Energy for example down Q. in the lower left quadrant. 19 20 Α. Yes. 21 Q. Correct? 22 Yes. Α. 23 Q. And that's overall an accurate depiction of 24 the corporate structure? 25 Yes, it is. Α.

Now can you turn to page 5, please. 1 Ο. 2 Α. Sure. 3 Q. And can you look at the second full paragraph on the left-hand side, please, and just read the last 4 sentence there which states that Fitch expects minimal 5 new capital commitments. б 7 I think I'm not with you, page 5? Α. Page 5 of the exhibit. 8 Ο. JUDGE CAILLE: Is this page 5 at the top, 9 10 Mr. ffitch, or --11 MR. FFITCH: It is page 5 at the top. 12 JUDGE CAILLE: Thank you. 13 THE WITNESS: Thank you, Your Honor, that was 14 my confusion. 15 Α. I have it, now where would you like me to 16 look? 17 BY MR. FFITCH: 18 Left-hand side, the second full paragraph, Q. and then if you could just read us that last sentence 19 20 please, Fitch expects. 21 Α. Is that the one that starts with while AE? 22 Fitch expects minimal new capital Q. 23 commitments, this is in the second full paragraph on the left-hand side. 24 A. Oh, thank you, I'm with you now. 25

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1	Fitch expects minimal new capital
2	commitments to AC's operations over the
3	coming five years and would view future
4	meaningful commitments to its
5	non-utility operations as a negative
6	credit development.
7	Q. Is Avista planning any meaningful commitments
8	to its non-utility operations over the coming five
9	years?
10	A. No. In fact, we have been taking capital out
11	of the other businesses and providing it to the utility.
12	Q. Now can you turn to page 9 of the exhibit,
13	please, and that's the exhibit pagination, this is part
14	of the Standard & Poor's report, I think the second.
15	A. I have it.
16	Q. You know, actually just to sort of lead us
17	into this if I can have you back up to page 8 on the
18	front page of the report.
19	A. Yes, I have it.
20	Q. And can you just read us the first sentence
21	of the second paragraph, the ratings on Avista
22	Corporation.
23	A. Sure.
24	The ratings on Avista Corp. reflect the
25	consolidated credit profile of the

01/0		
1		company's utility business, its energy
2		trading subsidiary Avista Energy, and
3		other small non-regulated subsidiaries.
4	Q.	Okay, now let's go over to where I went
5	first, pag	e 9 at the top, and if we go to the 4th line
6	down, ther	e's a sentence that starts, the scale of
7	operations	
8	Α.	Mm-hm.
9	Q.	At Avista Energy, can you just read that
10	section wh	ich goes on to end with the risk profile
11	stand-alor	e utility a few lines down.
12	Α.	Okay.
13	Q.	Just read that, if you wouldn't mind, please.
14	Α.	(Reading.)
15		The scale of operations at Avista Energy
16		has tapered off since the Western U.S.
17		energy crisis as its strategy shifted
18		toward marketing activities focused on
19		physical assets. Nonetheless, continued
20		involvement in riskier energy trading
21		and marketing activities contributes to
22		a weaker consolidated business risk
23		profile than the stand-alone utility.
24	Q.	Okay. Now I think I touched on this a moment
25	earlier, b	out can you describe how you have disaggregated

the riskier energy trading and marketing activities from 1 the stand-alone utility in computing the capital 2 3 structure for the affiliate in this proceeding? 4 Again the answer is I have not, because I Α. have not felt that it's necessary to do that. The next 5 sentence I think is critical as part of what Standard & б Poor's is saying here: 7 The concern is partly mitigated by 8 9 conservative risk management policies, 10 adequate liquidity, and a consistent 11 historical financial performance. 12 Q. Okay, not eliminated? 13 Α. Not eliminated, certainly considered, one of 14 many factors. 15 And you're asserting that the equity ratio Ο. 16 you're defending in this case is based on a projected consolidated capital structure, right? 17 The equity ratio that I'm defending in this 18 Α. case at this point is a stipulated settlement of 40%. 19 20 It was a part of a number of trade offs that we made 21 with the parties that settled. 22 All right. I was referring in my question to Ο. 23 the initial filing of the company. Oh, sorry, thank you, that is correct. 24 Α. I quess my last question, Mr. Malquist, is 25 Ο.

how can a reasonable person interpret this as anything other than utility rate payers supporting the riskier parts of the corporation through the use of this consolidated rather than the stand-alone capital structure?

б Well, Mr. ffitch, I would suggest to you that Α. 7 the customers have actually benefited, the utility has 8 actually benefited over the last several years as a 9 result of having the unregulated operations of the 10 company. Avista Energy has paid \$185 Million including 11 \$15 Million this year up to Avista Corp. that have been 12 used to try to keep the equity ratio higher than it otherwise would be at the utility the way you all are 13 14 looking at it. That really the low equity ratio is a 15 result of difficulty the last four or five years through 16 the energy crisis, and so I don't see this as in any way a subsidy. In fact, just the opposite, I believe that 17 18 we haven't had full cost recovery the last several years from our customers, and our shareholders have been 19 20 subsidizing.

Q. So your testimony is that during this era since 2000 when the company has had at least two rate cases and requests for interim rate relief and significant increases in residential rates, that that constitutes consumer benefit through this kind of a

1 capital approach?

The difficulty that we have faced with 2 Α. 3 significant increases in fuel and purchase power costs, 4 below normal hydro conditions, et cetera, et cetera, have prevented us from earning our authorized return on 5 equity. Had we earned our authorized return on equity 6 and did we not have significant deferral balances still 7 outstanding, our utility equity ratio would be above 8 9 40%. 10 MR. FFITCH: Those are all the questions I 11 have, Your Honor. 12 JUDGE CAILLE: Did you have some cross? 13 MS. DAVISON: Yes. 14 JUDGE CAILLE: All right, go ahead. 15 MS. DAVISON: Thank you, Your Honor. I 16 wanted to start off by asking questions on 34C, which is 17 marked confidential. I can -- my questions are general 18 in nature. 19 JUDGE CAILLE: Why don't we take our recess 20 now. 21 MS. DAVISON: Okay. 22 JUDGE CAILLE: And come back at 1:30. 23 MS. DAVISON: Okay. 24 (Luncheon recess taken at 12:00 p.m.) 25

1	AFTERNOON SESSION
2	(1:30 p.m.)
3	JUDGE CAILLE: Good afternoon, we are
4	reconvened after our luncheon recess, and I believe was
5	it Mr. Van Cleve, are you going to cross
6	MR. VAN CLEVE: Yes, Your Honor.
7	JUDGE CAILLE: Mr. Malquist?
8	MR. VAN CLEVE: Yes.
9	JUDGE CAILLE: All right.
10	MR. VAN CLEVE: One thing first, Your Honor,
11	I would like to move for the admission of Exhibit 35 or
12	what's marked as Exhibit 35, which is the form 10-Q
13	dated August 5th that has now been distributed to the
14	parties.
15	JUDGE CAILLE: Is there any objection to the
16	admission of this exhibit?
17	MR. MEYER: No objection.
18	JUDGE CAILLE: Then Exhibit 35 is admitted
19	into the record.
20	And you may proceed, Mr. Van Cleve.
21	
22	CROSS-EXAMINATION
23	BY MR. VAN CLEVE:
24	Q. Mr. Malquist, I would like you to refer to
25	Exhibit 34C.

1	A. I have that.
2	Q. And I would like to try to ask you some
3	questions about this exhibit which has been designated
4	confidential without getting into any confidential
5	information. And is this an exhibit or is this a
б	document that's prepared on a monthly basis?
7	A. Yes, sir, it is.
8	Q. And what is the general purpose of this
9	document?
10	A. It's really to allow us to manage the company
11	effectively by understanding the pluses and minuses as
12	the year goes on on a monthly basis compared to budget,
13	how we're doing compared to our budget for the year.
14	Allows us to the extent that we start to see significant
15	variances, particularly if they're of a negative effect,
16	to take some action to try to offset variances from our
17	budget.
18	Q. And this document was, it says on the first
19	or on the second page that it was published on September
20	29, 2005?

21

A. Yes, that's correct.

22 Q. And it reflects data through what date? 23 Α. This is data for the month of August 2005 and for the year to date through the end of August 2005 as 24 well as it also shows data, actual data for annually for 25

1 2002, 2003, and 2004.

2 Okay. If you turn to the next page, and Ο. 3 which at the bottom of the sheet it says 5. 4 I have that. Α. Are there some other pages of this document 5 Q. 6 that weren't provided? I'm assuming that there are other pages in 7 Α. 8 the interim, but my memory doesn't bring those to mind what those could be. They could be of a graphical 9 10 nature, they could be pictures to depict actions that 11 our crews have done during that time. I just don't 12 know, I don't recall. 13 Ο. Okay. On this page denoted as 5 if you look 14 at line 12. 15 Α. Yes, I see that. 16 That line provides under the year to date Ο. column the actual earnings per share compared to the 17 18 budget; is that right? That is correct. 19 Α. 20 Ο. And then further over it has the budget for 21 2005, and it compares those to the actual earnings per 22 share for 2004, 2003, and 2002; is that correct? 23 That is correct. Α. All right. If you could turn four more pages 24 ο. back to a chart labeled gross margin variance. 25

0100	
1	A. I see that.
2	Q. And you see the top portion of the chart
3	where it says power supply components allowed in the
4	deferral mechanism?
5	A. Yes, I do.
6	Q. And then the next portion of the chart refers
7	to gross margin components not allowed in the deferral
8	mechanism.
9	A. I see that.
10	Q. And why do you separate those out?
11	A. I think the purpose here is to calculate the
12	impacts that are going to flow through the ERM in the
13	state of Washington. And the second item, second set of
14	items as it says are gross margin components not allowed
15	in deferral mechanisms, either Idaho or Washington.
16	Q. Does the company consider whether a cost will
17	be subject to a deferral mechanism when it's making a
18	business decision?
19	A. No, we try very hard to make the best
20	decision that we can for our customers whether or not
21	that will flow through the ERM or not. In fact, you
22	know, Coyote, which I think you have talked about a bit,
23	I think is a good example of that where we currently are
24	operating Coyote with significant benefits flowing
25	through the ERM without cost recovery of that plant.

1 If you could turn back to what has page 11 at Ο. 2 the bottom, I think it's two more pages back, it's a 3 graph. 4 Α. I have that. 5 And what does this graph depict? Q. 6 These are the electric deferral balances Α. starting in January of 2001 on an actual basis running 7 through August of 2005 and then projected based on, the 8 9 projected deferral balances based on the current 10 estimate of fuel and purchase power costs. 11 MR. VAN CLEVE: Okay, that's all the 12 questions I have. 13 JUDGE CAILLE: Any redirect? 14 MR. MEYER: Yes, I do, Your Honor. 15 16 REDIRECT EXAMINATION 17 BY MR. MEYER: Mr. Malquist, you were asked a series of 18 Q. questions by Mr. ffitch relating to the impact of Avista 19 20 Energy and the company's business risk profile; do you 21 have further comment? 22 I do. I would just -- I would like -- I Α. 23 guess I would like to point out that I think that the rating agencies and the financial community take into 24 25 account what's happening with non-regulated

subsidiaries. And, in fact, I found it interesting as I 1 2 reviewed Mr. Gorman and Mr. Hill's testimony that the 3 comparable groups that they used essentially were 4 roughly a business position 6, which indicates comparable risk to our business position 6, and yet 5 6 there was some interesting factors that came out of 7 that. I'm looking now at Exhibit 334. 8 0. Excuse me, can you just give me a moment to 9 look for that. 10 Α. For Mr. Gorman. 11 Ο. Okay. 12 MR. FFITCH: Your Honor, I haven't objected 13 here because it appeared that while the question was 14 very, very open ended, simply inviting a general 15 narrative statement from the witness, the answer 16 appeared to be directed immediately to my cross. I just 17 want to raise a concern here that the witness not now 18 engage in a lengthy tour through various exhibits and a 19 long speech about a whole range of topics that weren't 20 specifically addressed in my cross-examination. 21 JUDGE CAILLE: So is that a soft objection? 22 MR. FFITCH: It's a soft objection, Your 23 Honor. JUDGE CAILLE: And the basis of your 24 25 objection is?

1	MR. FFITCH: Well, Mr. Meyer didn't ask any
2	specific question about my cross, he simply invited the
3	witness to comment on the issues raised by my cross.
4	The witness has commented, and now the witness is
5	beginning to start apparently walking us through
б	exhibits. And if it's going to continue in that vein, I
7	would interpose an objection that the witness is just
8	being asked to give sort of a free flowing narrative not
9	responsive to any particular question.
10	JUDGE CAILLE: All right, I assume you will
11	object if it continues.
12	THE WITNESS: So I will try to keep my answer
13	short then.
14	JUDGE CAILLE: Yes, please.
15	A. The point that I wanted to make from this
16	exhibit as well as a similar one in Mr. Hill's is that
17	the parties have suggested that there is risk associated
18	with Avista Energy, which I absolutely agree. The
19	rating agencies take that into account, as does the
20	investment community. In the comparable groups we see a
21	number of utilities with similar business positions as
22	us, and that suggests to me that we have done a good job
23	of mitigating the risk associated with Avista Energy
24	since we're placed in essentially the same comparable
25	group as these other utilities are.

In addition, I would point out that the 1 2 common equity ratio for that group is in the 43% to 47% 3 range where we're talking about 40%. And the bottom 4 line for me, what I found interesting here was that if we indeed were being reflected with a 30% utility ratio, 5 6 our debt rating would be lower than this, we would be 7 financing at a higher cost than we can currently finance. We recently did 5.45, it would be higher were 8 9 we not able to essentially take into account the equity 10 component that is at Avista Energy and our other 11 subsidiaries. 12 BY MR. MEYER: 13 Q. Mr. Malquist, you were also directed by

14 Public Counsel to some rating agency presentations. Do 15 you have any further elaboration with regard to more 16 recent discussions you have had?

17 Well, we do meet with the rating agencies on Α. 18 a regular basis two to three times a year. We in fact 19 had a discussion with the rating agencies just last week 20 in New York. We visited the agencies and discussed --21 we always talk about Avista Energy because it is an 22 important part of the risk profile of the company. I 23 guess I would highlight just two things from the 24 conversation.

25

We talked specifically about Avista Energy,

and I asked Fitch at the end of the, that's F-I-T-C-H, 1 2 at the end of the meetings, I asked Phil Smith and Rob 3 Hornick, if we didn't have Avista Energy, would you 4 upgrade us. And the answer was no. They said that our financial metrics are not good enough at this point to 5 warrant an upgrade. And I have had similar discussions 6 7 with the other rating agencies, and so I believe we're 8 getting benefit from Avista Energy, that it's not a 9 detriment to us, and it actually has I think helped us 10 significantly with the dividends that we have been able 11 to pay from that particular business.

12 We also talked about the equity building 13 mechanism, and I try to see that as -- I'm trying to see 14 that, the carrot in that, Commissioner Jones, rather 15 than the stick from your earlier discussion with 16 Mr. Avera I believe. And the carrot that I see is we do need to build our equity ratio, there's absolutely no 17 18 doubt in my mind, and I want to be able to do that. The 19 difficulty in doing that, if we have dividend restrictions, if we don't have -- if we have to allocate 20 21 some of the rate increase toward building down the 22 deferral mechanisms, I think -- I actually think that 23 that makes it more difficult for us to issue equity in the marketplace, because it will have a detrimental 24 25 impact on our stock price.

1 MR. MEYER: That completes my redirect, thank 2 you. 3 JUDGE CAILLE: Commissioners, any questions 4 of this witness? 5 MR. VAN CLEVE: Your Honor, I just had one follow up on the exhibit that you referred to, 6 Mr. Gorman's. 7 8 JUDGE CAILLE: Go ahead. 9 10 RECROSS-EXAMINATION BY MR. VAN CLEVE: 11 12 Q. That's Exhibit 334. 13 A. Yes, sir. 14 Q. I note on that exhibit that Puget Sound 15 Energy has a business profile rating of 4; is that 16 right? 17 A. Yes. 18 Q. And they have a common equity ratio of 39% to 19 40%? 20 Α. They do. 21 Q. And Puget is also subject to hydro risk? 22 They are. Α. 23 And do you know what the business profile Q. 24 rating of PacifiCorp is? 25 A. I don't, no, I don't.

Would you accept subject to check that it's 1 Ο. 2 5? 3 Α. I would. MR. VAN CLEVE: Okay, thank you. 4 JUDGE CAILLE: And is that all for this 5 6 witness? 7 8 EXAMINATION 9 BY COMMISSIONER JONES: 10 Ο. Just two questions. One is I think in your 11 prefiled direct, Mr. Malquist, you indicated that you 12 have decided as a matter of policy to use free cash flow 13 to pay down debt where possible over the past two, three 14 years and not issue stock, common equity if you will. 15 Α. That's correct, Commissioner. 16 ο. What is the basis for that decision? Well, as we have looked ahead the last -- I 17 Α. 18 can go back to 2002 and 2003 and 2004, and each year as we have looked ahead --19 20 Ο. Let's just do 2004. 21 Α. Okay, 2004 as we looked ahead to 2005, we 22 always project normal weather and the current energy 23 prices that are in effect, and we have projected that we would bring down the deferral balances between \$30 and 24 25 \$40 Million a year. That's actually a pretty

significant amount of equity build that can be had 1 2 without having to issue any new stock. And so we have 3 been planning to build the equity ratio back up to where 4 it was pre-energy crisis, but our uncooperative weather and hydro conditions have simply not allowed us to get 5 to where we had hoped to be. So we are -- we're 6 7 actually in discussions at the present time with 8 companies to begin a continuous equity offering program 9 so that we can put some equity into the marketplace. 10 You will see a financing application associated with 11 that as well as associated with some other means of 12 raising equity in the next couple of months. I 13 absolutely believe we should be raising equity ratio. 14 Ο. On page 3 of your prefiled direct testimony, 15 you talk about the goal for your credit rating, and I 16 just want to confirm that that is still your present 17 goal, which is triple B or weak A, is that still the 18 present goal of the company? 19 Α. Yes, sir, it is. 20 ο. And has anything in this rate proceeding 21 changed your view of that goal? 22 No. Α. 23 Of the company? Q. No, it hasn't changed that view. 24 Α. And is it your view that if -- that the 25 Ο.

settlement agreement will provide the basis for Wall 1 Street analysts to upgrade the corporate credit rating 2 to this level? 3 4 I believe that it will get us there, perhaps Α. not next year, but I'm hopeful that in 2007 that we can 5 6 get there. 7 COMMISSIONER JONES: Thank you. JUDGE CAILLE: And for the record, the 8 9 Mr. Malquist direct testimony is Exhibit Number 31. 10 Anything more for this witness? 11 All right, you're excused, thank you, 12 Mr. Malquist. 13 And we are now going to take a witness out of 14 order, our next witness will be Mr. Cloward. 15 (Witness Randall O. Cloward was sworn.) 16 JUDGE CAILLE: Mr. Meyer. 17 18 Whereupon, 19 RANDALL O. CLOWARD, 20 having been first duly sworn, was called as a witness 21 herein and was examined and testified as follows: 22 DIRECT EXAMINATION 23 BY MR. MEYER: Q. Mr. Cloward, for the record please state your 24 25 name and your employer.

1	A. Randy Cloward, Randall O. Cloward, with
2	Avista Corporation.
3	Q. And have you prepared rebuttal testimony that
4	has been marked for identification as Exhibit 221?
5	A. Yes, I have.
б	Q. Any changes to make to that?
7	A. No, there are none.
8	Q. So if I were to ask you the questions that
9	appear in that prefiled testimony, would your answers be
10	the same?
11	A. They would.
12	MR. MEYER: With that, Your Honor, I move for
13	the admission of Exhibit 221.
14	JUDGE CAILLE: Any objection to admission of
15	Exhibit 221?
16	Hearing none, then it is admitted.
17	And, Mr. ffitch, you have cross-examination
18	for Mr. Cloward.
19	MR. FFITCH: I do, Your Honor. Public
20	Counsel agreed to the company's request to take
21	Mr. Cloward out of order to accommodate his schedule,
22	and one of the issues for us is whether to direct
23	certain questions to Mr. Falkner or Mr. Cloward. The
24	original order had we thought served us pretty well,
25	because we felt that Mr. Falkner could defer questions

to Mr. Cloward as necessary. Now with Mr. Cloward going 1 2 first, we're hoping to make sure that we anticipate and 3 ask everything we need to. So it may be that if in the 4 event Mr. Falkner doesn't know the answer to some of his questions later on in the hearing, we might ask a record 5 6 requisition or something of that nature just to be able to have Mr. Cloward fill in any missing points. So if 7 there's a little bit of organizational issues with my 8 9 cross here, that's why. 10 11 CROSS-EXAMINATION 12 BY MR. FFITCH: 13 Q. Good afternoon, Mr. Cloward. 14 Α. Good afternoon, Mr. ffitch. 15 ο. Now you didn't file direct testimony in the 16 case; is that correct? 17 That is correct. Α. 18 And you were brought in as a new witness by Q. 19 the company in response, to file rebuttal in response to 20 transmission issues; is that correct? 21 Α. Transmission issues, revenue issues for the 22 most part. 23 Okay. I just have a few questions for you. Q. 24 Let me ask you first to turn to your rebuttal exhibit, 25 which is Exhibit 221.

1 Α. Yes. And page 2, please. 2 Q. Page 2, I have it. 3 Α. 4 All right. And at line 10, beginning at line Q. 10 there, you indicate that Mr. Lott's proposal in this 5 6 case ignores the known changes that have occurred that have a direct impact on OASIS revenues. That's an 7 8 acronym. 9 Α. Yes. 10 Ο. Open access same time information system, 11 correct? 12 Α. Correct. 13 Q. And that is your testimony, that you believe 14 Mr. Lott ignores the known changes in that item, 15 correct? 16 Α. That is my testimony. 17 Now can you just summarize what OASIS Q. 18 revenues are generally? 19 OASIS revenues are those revenues that we Α. 20 collect from third parties for the sale of transmission 21 to others. 22 All right. And you actually state that in Q. 23 your testimony on page 1 at line 21, beginning at line 21, don't you? 24

25 A. Yes, correct.

Q. Now going on to the lower half of page 2, there's a question that says, please explain, and in answer to that question you compare a number of years, you compare 2002-2003 to the 2001 total OASIS revenues of \$6.9 Million, correct?

6 A. Correct.

Q. And you indicate that in 2001 these third party customers purchased almost all of Avista's excess power in order to give them flexibility even if they did not use it, correct?

11 A. That's correct.

12 Q. Was this a general situation in the Northwest 13 where companies were buying up transmission in order to 14 give themselves flexibility?

15 A. Yes, I believe it was. At the time, the 16 energy prices were so high that the cost of transmission 17 was very inexpensive, and for those people who knew that 18 they needed the flexibility in the market, they 19 purchased additional transmission.

Q. Okay. Now can I get you to turn to page 3,21 please.

22 A. Okay.

23 Q. At the top of page 3, line 3, you state that 24 the company believes that 2001 was an anomaly and should 25 not be used for future revenue forecasts, correct?

1

A. That's correct.

2 And then if we go over to page 6, excuse me, ο. 3 same page, line 6, the next Q&A, you then explain some 4 additional factors why you believe 2004 is an abnormal year, correct? 5 6 Α. Yes. 7 So my question is, did Mr. Lott include Q. either 2001 or 2004 in his calculation of pro forma 8 9 revenue? 10 Α. To the best of my knowledge, he did not, he 11 recognized them as anomalies as well. 12 ο. All right. Now I'm going to ask you to take 13 a look at an exhibit that was marked for Mr. Falkner, 14 and that's been marked as Exhibit 117, and that is 15 response, an excerpt from a response to Public Counsel 16 217. 17 Okay, 117? Α. 18 Q. Correct. 19 Α. Okay. 20 Ο. Now that data request is Public Counsel 217, 21 and that asked the company for workpapers supporting the 22 various adjustments included in the transmission 23 adjustments including the OASIS revenue item, correct; is that right? 24 25 Α. Yes, that's correct.

MR. FFITCH: Just give me a moment, please, 1 2 Your Honor. 3 BY MR. FFITCH: 4 And in the first response to this request, Q. and we have had a number of responses to this particular 5 request, haven't we? 6 7 Α. Yes. Okay. In the first response, which I believe 8 Ο. you have there in front of you, there's a confidential 9 10 worksheet showing OASIS revenues on a monthly basis for 11 five years ending December 31st, 2004, and this would be 12 page 4 of the exhibit. 13 Α. That's correct. 14 Q. Okay. And would you agree that the lowest 15 annual year in the five year period for OASIS non-firm 16 and short-term firm wheeling revenues was \$3.1 Million 17 in 2000? 18 Α. I show \$2.4 Million in 2000, page 4 of the exhibit. 19 20 Ο. All right. 21 MR. FFITCH: I apologize, if I may just have 22 a moment, Your Honor, just checking the sheet here. 23 JUDGE CAILLE: I just want to inquire whether we should be discussing these individual totals, because 24 25 this is a confidential exhibit.

1	MR. MEYER: We're fine up to this point.
2	JUDGE CAILLE: All right, you will
3	MR. MEYER: We will let you know if we cross
4	the line.
5	JUDGE CAILLE: Thank you.
6	MR. FFITCH: I'm not able to pick up that
7	line, Your Honor. I think what I'm going to do is move
8	on to the next question, and we may just either address
9	this with Mr. Falkner, or we can do it on the brief with
10	these exhibits, I apologize.
11	BY MR. FFITCH:
12	Q. Referring you to page 6 now of Exhibit 221
13	again, your rebuttal.
14	A. Page 6, I have it.
15	Q. And on line 7 there in your testimony you
16	discuss \$816,000 adjustment, and this is related to line
17	items that are labeled CASSO and OATI, can you just
18	state what those acronyms stand for?
19	A. Yes CASSO is a control area services company
20	where we and other members of the Northwest Power Pool
21	pay for services to manage the control area. And OATI
22	is the Open Access Technology International, they're a
23	company in Minnesota that we use now for our OASIS web
24	page.
25	Q. All right. And you're aware that on rebuttal

Mr. Lott dropped his removal of this adjustment based on 1 workpapers supplied in response to his data request? 2 3 Α. I am. 4 Now can I get you to turn to page 7, please, Q. and the question at the top of the page is discussing 5 6 Colstrip operation, the Colstrip operation and maintenance adjustment, right? 7 8 Α. Yes, for the transmission line. 9 And the company called Northwestern provides Ο. 10 the maintenance on this line, correct? 11 Α. They do. 12 ο. And they bill Avista monthly for actual 13 operating expenses and actual capital costs, correct? 14 Α. Yes, they bill us monthly, and they provide a 15 yearly budget. 16 And the actual amounts vary from month to Ο. month, correct? 17 18 Correct. Α. Your pro forma in this case is based on 19 Q. 20 representations of Northwestern? 21 Α. Yes, the budget that they provide. 22 All right, the representations in the budget? Q. 23 Yes. In addition, that budget has also Α. increased for 2006 in a subsequent exhibit, I think it 24 was 294, where the new budget amounts were even higher 25

0501 than the settled amount. 1 2 Can you direct me to 294? Ο. 3 Α. It was --4 Which witness is that for? Q. It was in response to Merton Lott, and I 5 Α. don't have another number. Oh, PC-217 Supplement 1. 6 7 That's the new -- that's the cross exhibit Ο. identified for Mr. Lott? 8 9 MR. MEYER: That is correct. 10 Α. It includes an E-mail and a brand new budget 11 sheet from Northwestern Energy. 12 ο. All right, thank you. 13 Now in Avista's initial filing and 14 workpapers, did Avista provide any evidence as to what 15 the increase was for? 16 I believe the only thing that we turned in Α. was the representation that Northwestern had given us 17 for the 2000. No actually, I speak -- I spoke wrong. 18 The budget for 2005 was not yet completed at the time, 19 20 and that number was a forecasted number based on our 21 2004 actuals. We don't normally receive the information 22 from Northwestern Energy in time for budget. 23 Do you know and is there -- does the record Q. state what the basis of the budgeted increase is, or is 24 it simply a representation that this is the Northwestern

budget for operations and maintenance? 1 2 It provides an itemization for each of the Α. 3 components that they plan to maintain for the 4 transmission line. Is that what you wanted? Well, whatever your answer is, I'm just 5 Q. 6 asking. 7 Well, the budget is fairly detailed, and it Α. 8 goes line by line. 9 Was that provided in support of your original Q. 10 request for this adjustment? 11 Α. It was not supplied until Exhibit 294. 12 ο. All right, which is a cross exhibit that was 13 just identified on the eve of this hearing, right? 14 Α. Yes. 15 ο. Now I'm going to go to a different area with 16 some questions about Dry Gulch, and these had been -- I 17 was going to direct these originally to Mr. Falkner, so 18 if you want to defer to Mr. Falkner, you're in a great position to do that. 19 20 Α. He reminded me of that, but if you're 21 referring to Exhibit 118, I think I can take your 22 questions. 23 I am just going to try to make sure of that Q. myself here. Exhibit 118 is another excerpt from the 24 rather voluminous response to Public Counsel 217, is it 25

1 not?

A. That's correct.

3 Ο. Just to make sure we're looking at the same 4 document here, this is -- the first page of the document is a landscape document with numbers, monthly numbers 5 6 across the page and years down the page, and it's titled Avista Corporation PP&L Dry Gulch; is that correct? 7 8 Α. I show it as 2 of the exhibit, but it's the 9 first substantive page. 10 Ο. I'm sorry, page 2 of the exhibit. 11 Α. Okay, I have it. 12 ο. You're correct. The first sheet of this 13 exhibit is, this is not marked confidential, all right, 14 the first sheet of this exhibit is the company 15 calculation of the \$245,000 pro forma level shown in 16 Mr. Falkner's workpapers? 17 That's correct. Α. 18 And when I say first sheet, I am referring to Q. this page 2 in the exhibit. And in this case the 19 20 company calculated a five year average of \$221,827 and 21 then escalated that amount by 5% for two years to arrive 22 at the total shown of \$244,561, correct? 23 Α. That's correct. 24 ο. Now if I could ask you to turn to the next page, page 3 of the exhibit. Actually I think this one 25

is going to be page 4 of the exhibit, the DR sheet. 1 Yeah, I have it. 2 Α. 3 Ο. And this is the sheet which shows the 4 calculation of monthly demand at Dry Gulch for each month in 2002 and 2004 in megawatts, correct? 5 Yes, that's correct. 6 Α. 7 And just for background by the way, can you Q. just tell us what Dry Gulch is? 8 9 It's a substation where we provide some Α. 10 delivery of load to PP&L. 11 ο. Okay. In the line marked 12 month rolling 12 ratchet, do you see that? 13 Α. Yes. 14 Q. It's about two thirds of the way down the 15 page on the left. I see it. 16 Α. 17 This is the demand applied to the bills on a Q. monthly basis during 2004, correct? 18 19 Yes, that is correct. Α. 20 Ο. And those demands are the highest demand 21 during the last 12 months? 22 Depending on how long that they were in Α. 23 existence. There could be a higher demand that follows the 25 for any given period year. It should be the 24

25 highest in the previous 12 rolling from.

0505		
1	Q.	Correct, that's
2	Α.	I'm sorry.
3	Q.	that is what I meant, the previous 12
4	months to	the calculation here.
5	Α.	That's correct.
б	Q.	This number shows the highest number during
7	the previo	us 12 months.
8	Α.	Right.
9	Q.	Correct?
10	Α.	That's correct.
11	Q.	So when we look at January, the 25, January
12	for exampl	e, the 25 megawatts is the level of demand
13	back from	July 2003, correct?
14	Α.	Correct.
15	Q.	Now the monthly revenue is shown two lines
16	later; isn	't that right?
17	A.	Yes, it is.
18	Q.	And for January it shows \$28,675?
19	Α.	Yes, and that number matches page 2 of the
20	exhibit wh	ere it shows the 2004 actuals.
21	Q.	Thank you. Total of the monthly revenues for
22	2004 is th	e \$305,102, which Mr. Falkner shows in his
23	workpaper;	is that correct?
24	Α.	Subject to check, that's what that total is,
25	yes.	

Okay, and that's the reference is PF1-5, that 1 Ο. 2 workpaper, I believe we have identified that as an 3 exhibit in the case, so you can check that pretty 4 easily. 5 Now if you refer back to page 2 of the, 6 excuse me, page 2 of the exhibit, go to the bottom of 7 the page, and the amounts shown for 2004 actuals start with the same \$28,675, correct? 8 9 Α. Correct. 10 ο. The worksheet does not show the total for 11 2004, but as shown on the second sheet we know that 12 amount is \$305,102, correct? 13 Α. Correct. 14 Q. And it is correct that none of the last five 15 years has revenue as low as the \$221,827 shown as the 16 five year average or the \$199,196 shown as the three year average, do they? 17 Well, the \$221,000 -- okay, that is correct, 18 Α. that is the lowest. 19 20 ο. Okay. Well, actually the question is, just 21 to make sure you're agreeing with the right thing, the 22 question is, none of the last five years has revenue as 23 low as the \$221,827 which is shown as the five year 24 average; is that correct? 25 Α. That is correct.

1	Q. And the same is true with regard to the
2	\$199,196 shown as the three year average?
3	A. Three year average, that's correct.
4	Q. In sheets 3 and 4 of this exhibit, which I
5	believe are, make sure I'm giving the right reference
6	here, well, the 2 pages we have just been looking at
7	which is in this exhibit, sheets, pages, excuse me, this
8	exhibit pages 2 and 4, they show a calculation based on
9	the three years ended 2004, correct?
10	A. Correct, of \$279,000.
11	Q. All right.
12	MR. FFITCH: Can I just check my notes, Your
13	Honor, I may be finished.
14	THE WITNESS: Yes, that \$279,000 was from
15	Mr. Lott's average.
16	MR. FFITCH: All right.
17	THE WITNESS: Based on three years.
18	MR. FFITCH: Your Honor, the only item I had
19	in the way of exhibits that we haven't addressed so far
20	is we had I had raised this matter earlier before the
21	hearing began, and that is that we have a additional
22	portion of the response to Public Counsel 217 which is
23	confidential, and we now have copies of that, and I
24	simply I'm not sure whether we need to do that now or
25	do that with Mr. Falkner. I don't have questions on it,

I just mention it because it comes up right in 1 2 connection with this particular series. But as I'm 3 raising it, I think perhaps we can just deal with it 4 administratively at the end of the day. 5 JUDGE CAILLE: That would be fine. 6 MR. FFITCH: I just wanted to flag that. JUDGE CAILLE: I will put that on my list. 7 8 MR. FFITCH: I don't have any more questions, 9 thank you. 10 Thank you, Mr. Cloward. 11 JUDGE CAILLE: Any redirect for Mr. Cloward? 12 MR. MEYER: Just briefly, Your Honor. 13 14 REDIRECT EXAMINATION 15 BY MR. MEYER: 16 Ο. Back to the discussion of the OASIS revenues, I believe Mr. ffitch had asked you about calendar years 17 2001 and 2004; do you recall that exchange? 18 Α. Yes, I do. 19 20 Ο. And in terms of the other years in that 21 historical string, 2002 and 2003, is it your belief that 22 those are representative? 23 Yes, I do. And in addition we talked about Α. the other average that Mr. Lott used to come up with a 24 25 \$3.4 Million, and I should add that the market

conditions that we see going forward cause us to further 1 2 adjust the number. It is only because we're privy to 3 some market changes in the transmission world to know 4 that that number might be slightly lower. And because that number is slightly lower, if we had not knowledge 5 of that number being lower, we would have used 6 7 Mr. Lott's method. Because it is a fine method, we just 8 adjusted it for known conditions in the transmission 9 marketplace.

10 Q. What has brought about those lower conditions 11 or those changed conditions in the transmission 12 marketplace?

13 Α. Well, for the most part the new construction 14 that has occurred as part of the trying to solve the 15 West Hatway constrained issue in the Pacific Northwest, 16 there's been additional construction by Bonneville for their 500 KV system, and that has significantly 17 18 increased the available transmission capacity that they have. So that has affected our ability to sell 19 20 transmission, because Bonneville has a larger footprint 21 than ourselves. So if a company can get on Bonneville 22 someplace, they can go further without having to pay any 23 transmission rents to Avista. And so because they now 24 have available transmission capacity, we think it is 25 impacting the market conditions for us.

And so do you expert our transmission 1 Ο. revenues to correspondingly decline? 2 3 Α. Yes. 4 And finally, do you then believe that the Q. settlement figure of \$2.4 Million for OASIS revenues 5 6 fairly captures what we could expect going forward? Based on the numbers we have seen this year, 7 Α. 8 it appears to be very accurate. 9 MR. MEYER: Thank you, that's all I have. 10 JUDGE CAILLE: Questions from Commissioners? 11 No questions, all right. Thank you, 12 Mr. Cloward, you're excused. 13 Mr. Kalich, will you please take the stand. 14 MR. MEYER: And while he's doing that, 15 Mr. ffitch, thank you for allowing an adjustment on your 16 sequence of cross, that allowed Mr. Cloward to make other obligations, thank you. 17 18 (Witness Clint Kalich was sworn.) JUDGE CAILLE: Thank you. 19 20 MR. FFITCH: Your Honor, with your 21 permission, I have conferred with Mr. Van Cleve, and he 22 has more cross than I do, and I would be happy to defer 23 to him to go first and then see if he covers some of my 24 areas. 25 JUDGE CAILLE: That will be fine.

0511 1 Mr. Meyer. MR. MEYER: Thank you. 2 3 4 Whereupon, 5 CLINT KALICH, having been first duly sworn, was called as a witness 6 herein and was examined and testified as follows: 7 DIRECT EXAMINATION 8 9 BY MR. MEYER: 10 Q. Mr. Kalich, for the record please state your 11 name and your employer. 12 Α. My name is Clint Kalich, and I work for 13 Avista Corporation. 14 Q. And have you prefiled what has been marked as 15 Exhibit 171 consisting of your direct testimony as well 16 as 174 consisting of your rebuttal testimony? 17 Α. Yes, I did. Any changes to make to either? 18 Q. 19 Α. No. 20 Q. Are you also sponsoring what have been marked 21 for identification as Exhibits 172 and 173? 22 Α. Yes. 23 Is the information contained therein true and Q. 24 correct? 25 Α. It is.

MR. MEYER: Thank you. 1 With that I move the admission of Exhibits 2 171 through 174. 3 4 JUDGE CAILLE: Any objection to the admission of Exhibits 171 through 174? 5 б Hearing none, they are admitted. 7 And Mr. Van Cleve. MR. VAN CLEVE: Thank you, Your Honor. 8 9 JUDGE CAILLE: I see you have 90 minutes for 10 Mr. Kalich. MR. VAN CLEVE: Hopefully we can do it 11 12 quicker than that. 13 CROSS-EXAMINATION 14 15 BY MR. VAN CLEVE: 16 Q. Could you please refer to Exhibit 173, which is the exhibit to your direct testimony. 17 18 A. I'm there. And if you look at the third page of this 19 Q. 20 exhibit. 21 Α. Okay. 22 Q. Where it says total resource cost \$82 Million for the annual number. 23 Α. 24 Yeah. 25 Q. What does that represent?

1	A. That represents the cost of running our
2	resources, which here mainly are our hydro resources and
3	our thermal resources, and what we're talking here
4	really is about just the variable cost of fuel, well,
5	exactly, it's fuel.
6	Q. So those are the costs that you're seeking to
7	recover in this case?
8	A. That's a portion of the costs in the case,
9	yes, but for these resources specifically this would
10	represent the fuel for these projects.
11	Q. And is it your understanding that
12	Mr. Falkenberg has proposed adjustments to this number
13	that are approximately \$14.3 Million?
14	A. I will need some more detail there, I'm
15	sorry.
16	Q. Well, I'm asking if you would agree that
17	Mr. Falkenberg has proposed adjustments to your numbers
18	that total about \$14.3 Million?
19	A. And could you reference where you're pulling
20	those numbers from, please.
21	Q. Sure, I'm looking at Mr. Falkenberg's direct
22	testimony at page 4.
23	CHAIRMAN SIDRAN: Counsel, can you give me an
24	exhibit number, please.
25	MR. VAN CLEVE: It is

JUDGE CAILLE: Direct testimony should be 1 2 301. 3 MR. VAN CLEVE: 301, yes, that's correct, 4 Your Honor. 5 JUDGE CAILLE: And what's your page number 6 again? 7 MR. VAN CLEVE: Page 4. JUDGE CAILLE: Thank you. 8 9 MR. MEYER: Do you have a copy? 10 THE WITNESS: I don't have a copy of 11 Mr. Falkner's testimony. Excuse me, did I say Falkner? 12 MR. MEYER: Falkenberg. 13 THE WITNESS: Falkenberg, I'm sorry, I have 14 that information, I'm sorry. I'm reasonably familiar 15 with his testimony believe it or not. I'm sorry, so 16 we're on page probably page 3 or 4 here, I'm familiar with this yes, I'm sorry. 17 BY MR. VAN CLEVE: 18 So you would agree that he's proposing about 19 Q. 20 \$14.3 Million worth of adjustments to your proposed 21 Aurora numbers? 22 A. Yeah, thereabouts. I see a couple of the 23 wheeling and the Kaiser that are modest relative to the rest of the adjustments, but I see the \$14.3 Million. 24 25 Q. Now can you tell me what the comparable

number to the \$82 Million is for the settlement 1 2 stipulation? 3 Α. The comparable number that Mr. Falkenberg has 4 proposed? No, that you're proposing. 5 Q. 6 Α. That I'm proposing? 7 Q. In other words, I'm asking for the power cost 8 that he calculated, the variable power cost, how the stipulation changed that number? 9 10 Α. Could you repeat that question again, please, 11 I'm sorry. 12 Ο. Well, let me phrase it this way. What are 13 the total variable power costs that are being proposed 14 in the settlement? 15 Α. The total variable costs, again if you're 16 referring back to the third page of my Exhibit Number 173, those are just representing fuel costs, so variable 17 18 costs actually are done outside of this, and Mr. Johnson picks up those costs. 19 20 Ο. Okay, let's just talk about fuel costs then. 21 Α. Okay. 22 What's the comparable number for the Q. 23 settlement to that \$82 Million? 24 Α. The comparable number for the settlement, we have to go over to the settlement and through those 25

adjustments in what I believe was Attachment A where 1 2 there are some adjustments. You're referring here to 3 for example the adjustment for Coyote Springs 2 fuel? 4 Well, I guess what I'm asking is whether you Q. recalculated the Aurora results to reflect the 5 6 settlement adjustments? 7 Α. Well, the answer to that's yes. 8 Ο. Okay. So do you have an Aurora run that 9 supports the settlement stipulation amount? 10 Α. Okay, I think I see where you're going. To 11 arrive at that, we didn't run an individual Aurora run. 12 What we have managed to do or put together as part of 13 the settlement were what I would define as incremental 14 changes to the model similar to actually on 15 Mr. Falkenberg did some -- did the analysis for Aurora. 16 And so, for example, on one of the larger adjustments 17 was the increase in gas price for the whole region and 18 Coyote specifically, so you run an analysis that has all 19 the assumptions exactly the same except you changed the 20 gas price and run the model again, compare the two, and 21 that provides you the incremental cost increase. In the 22 case of fuel for example, the increase to 7.25 gas that 23 we have referenced is about \$3.6 Million Washington 24 allocation.

25

Q. Could you refer to Exhibit 120.

I have it. 1 Α. 2 This is a response to an ICNU data request Ο. 3 that asks for detailed how the adjustments in Attachment 4 A to the stipulation were calculated; is that right? 5 Α. Yes. Okay. If you look on the second page of 6 Q. Exhibit 120 down at Paragraph C, can you explain the 7 first bullet point there? 8 9 You're referring specifically to how it Α. 10 impacted the running of the Aurora power supply model? 11 ο. Right. 12 Α. Yeah, the significant difference here was we 13 proposed our case, we proposed using the entire hydro 14 record from 1929 through 1988. Through the settlement, 15 we agreed to use the 50 year period that ends 1978. So 16 what we did was instead of calculating the 60 year 17 average by averaging each of 60 years of water that we 18 ran, we averaged the first 50 years, which coincided with the stipulation. 19 20 ο. So you calculated the 50 water years that 21 were used in the stipulation in the exact same way that 22 you did the 60 water years; did you run each of the 23 years through Aurora? We didn't need to. What you would do is the 24 Α. 25 -- they're individually tracked as we run the model,

they're stored in our database. So instead of summing 1 2 up or averaging, excuse me, averaging all 60 years, you 3 would just simply average the first 50 years. 4 Now in the second bullet you talk about the Q. NYMEX prices, and do you know what the dates of those 90 5 days of prices, what dates they were from? 6 7 Α. Actually, yes, that was March, excuse me, 8 May, June, and July of this year. 9 Now would you agree that there's quite a bit Ο. 10 of debate in this case about what the appropriate hydro 11 years are used -- will be used to calculate --12 Would you agree that there is considerable 13 debate in this case about what hydro years to use in 14 calculating normalized hydro supply costs? 15 Α. Both the hydro period and also the matter --16 it's not as simple as the years. Actually some parties have proposed a filtering approach. So in general there 17 18 is disagreement as to which years of the hydro record 19 are used to establish base rates, yes. 20 Ο. And historically has Avista used a rolling 40 21 years average methodology? 22 For planning? Α. 23 Q. For purposes of setting rates. 24 Α. The most recent case we had in this jurisdiction we did not use the 40 year rolling average, 25

1 no.

Q. If you can look at your direct testimony,
 Exhibit 171, at page 3.

4 A. Yes.

5 Q. I guess my question was based on your 6 statement there that says that you did use the 40 year 7 rolling average previously.

8 A. I was referring more historically back into 9 the '80's and earlier as well. So if you want to look 10 well back into history, we did use a 40 year rolling 11 average as stated in my testimony. I was just referring 12 to the most recent case in this jurisdiction.

13 Q. If you could refer to Exhibit 177.

14 A. Okay.

Q. Now this is a data response that shows the difference between what you propose in your direct case and the 40 year rolling average, right?

18 A. Yeah, I was asked to make that calculation19 for Public Counsel.

20 Q. And so using the 60 years increases power 21 costs by about \$8 Million?

A. Or the way it's represented here is going to
40 would reduce power supply expense by just about \$80
Million, yes.

25 Q. Now have you calculated what the difference

between the settlement methodology and the 40 year
 rolling average is?
 A. I could do that math, I haven't calculated
 it.
 Q. One thing that I'm trying to understand is

6 what portion of the adjustment in Attachment A, the 7 \$3.651 Million adjustment for CS2 fuel, what portion is 8 related to fuel and what portion is related to using the 9 50 years of hydro?

10 Α. Yes, actually there's been some confusion 11 there. The -- when the -- the analyst I have working 12 for me put the numbers together, the intent of the 13 company and obviously in the settlement was to include 14 both those adjustments and that line item. And in 15 reviewing the stipulation last night, I saw that text, 16 and actually I went back as part of the preparation for 17 this case in fact last night and looked at the spread 18 sheets we put together to summarize the information, 19 actually it was learned that the adjustment for Coyote 20 for the higher gas price was exclusively that adjustment 21 only. In other words, it did not include the 60 to 50 22 years change.

Q. Was the 60 to 50 year change included in Mr. Norwood's adjustments at page 5 of his rebuttal testimony?

1	JUDGE CAILLE: Could you please, so that
2	would be Exhibit Number 12, or no, Exhibit Number 11.
3	THE WITNESS: I don't have a copy of that in
4	front of me.
5	MR. VAN CLEVE: Exhibit Number 11, correct.
6	MR. MEYER: Just a moment.
7	JUDGE CAILLE: I'm sorry, did you give us a
8	page number, Mr. Van Cleve?
9	MR. VAN CLEVE: Page 5 of Exhibit 11.
10	BY MR. VAN CLEVE:
11	Q. Do you have page 5 in front of you?
12	A. I'm sorry, yes, I do.
13	Q. And I asked Mr. Norwood about this, I was
14	just trying to understand the difference between his CS2
15	gas transportation adjustment and the one that's in the
16	settlement stipulation.
17	A. Based on my quick math, subject to check it
18	appears that Mr. Norwood's adjustment does include the
19	60 to 50 years in the stipulation. If I'm referring to
20	the right document, there's not an Exhibit A to the
21	stipulation.
22	Q. Okay, thank you.
23	A. The magnitude of the dollars look about
24	right.
25	Q. So going from 60 to 50 is not a material

1 difference in cost?

2 It is my recollection is about \$274,000 Α. 3 system, \$165,000 to Washington. 4 Okay. If you could, I would like to ask you Q. a few questions about the hydro filtering approach that 5 Mr. Falkenberg is suggesting, and Mr. Falkenberg is б 7 proposing to remove all water years that are 1 standard deviation from the mean; is that correct? 8 9 That's my understanding, yes. Α. 10 ο. And if you could refer to page 4 of your 11 rebuttal testimony, which is Exhibit 174. 12 Α. Okay. 13 Q. In this part of your testimony, you're 14 basically taking the position that Mr. Falkenberg's 15 suggestion should be rejected. Are you aware that he's 16 proposing the same thing that the Staff proposed and the 17 Commission accepted in the last PacifiCorp rate case? I'm well aware of that. I'm also aware that 18 Α. the PacifiCorp rate case didn't -- the Commission was 19 20 not privy to the information and the analysis performed 21 by Dr. Dubin and Dr. Mariam, and that case actually 22 settled as a fully litigated case in February of this 23 year, but I am aware of that PacifiCorp settlement that 24 included that methodology.

25

Q. You're referring to the Puget Sound Energy

case, I believe that's --1 Their 2004 case, the order was in February of 2 Α. 3 this year. 4 -- Docket Number UE-032043. Q. Actually that sounds like the PacifiCorp 5 Α. 6 docket. 7 I think it's the Puget docket. You're Q. correct. 040641. Now would you agree in that case that 8 9 the Commission stated that: 10 We encourage the parties to continue 11 their discussion of this subject and 12 their efforts to develop even more 13 rigorous tools for hydro normalization. 14 Α. You're referring now to the Puget order 15 Number 4 --16 ο. Right. 17 -- of this year? Α. 18 Right. Q. Yes, there's language there. 19 Α. 20 Ο. Have you reviewed the testimony from 21 Mr. Buckley which was attached as an exhibit to 22 Mr. Falkenberg's testimony that is Exhibit 303? 23 I did review it, yes. Α. And you are in agreement that Mr. Buckley 24 ο. proposed the same methodology as Mr. Falkenberg is 25

proposing in this case? 1 2 Α. Yeah, I think they're generally if not the 3 same. 4 Is it your belief that Mr. Buckley's approach Q. is unsound? 5 6 I believe that the work performed by two Α. essentially Ph.D. econometricians is far superior and is 7 more in line with the company's position over the years 8 9 on this issue, and I think that we should be using 10 recent precedent that as I just said is superior to that 11 methodology. 12 Ο. And did Dr. Dubin's work consider how 13 deferred accounting might impact what hydro years should 14 be used to normalize costs? 15 Α. I can't speak to that. 16 At page 3 of Exhibit 303, which is Ο. Mr. Buckley's testimony, he argues that the very real 17 18 tendency of utilities to request rate relief in bad 19 water years is one reason for his approach. And both 20 Mr. Buckley and Mr. Falkenberg argue that it is 21 inappropriate to include extreme hydro years in setting 22 base rates if you also allow utilities to obtain 23 deferred accounting in extreme years. Don't you think that's a valid concern? 24

25

A. I guess what I struggle with in that analogy,

in fact as I read Mr. Falkenberg's testimony he sets up 1 a world where there's no energy recovery mechanism in a 2 3 world where, well, essentially rolling back the clock 20 4 years, and in that world there may well be a reason for the company to come forward in a poor hydro year. But 5 6 with an energy recovery mechanism where costs are being 7 reflected through -- already through the ERM, the hydro 8 costs, I don't think there's any real certainty that the 9 Commission would allow us to come into that 10 circumstance. In fact, Mr. Falkenberg's analysis where 11 he -- well, I will leave it at that.

Q. Well, you are aware, aren't you, that several utilities in this state have had energy cost recovery mechanisms in place over time but that none of them have been in place for a long period of time; is that correct?

A. I don't know the specifics. I could make a
guess at PacifiCorp, or excuse me, Puget. I know we
have had an energy recovery mechanism here since, what,
2001, 2002, and then obviously in Idaho since I believe
1989.

Q. And if you look at your rebuttal testimony,
Exhibit 174 at page 7, there's a chart that shows the
hydro deviation from normal over time; is that right?
A. Yes, that's what it represents annually.

And what was the point in time when the 1 Ο. energy recovery mechanism was put in place? 2 3 Α. Shortly after, well, it would be the 2001 period there. 4 So it was during some of the worst hydro 5 Q. 6 conditions in the whole record since 1929; is that 7 right? 8 Α. Yeah, that's what the graph would show. 9 And did the company also seek a deferral Ο. 10 before the ERM was put into place? 11 Α. For costs it had incurred up to that point 12 when there was not an energy recovery mechanism in 13 place, yes. 14 Q. But I think the point is that the utility 15 generally controls the timing of when these recovery 16 mechanisms are put in place. I guess I don't see it that way. I saw prior 17 Α. to 2001 the company did not have an energy recovery 18 19 mechanism that it could recover costs through, so there was a different need at that time. Going forward we 20 21 have a different environment today where costs can be 22 recovered through the energy recovery mechanism. 23 Well, I think that's exactly the point if you Q. 24 look at the 97-98 time frame on your chart when hydro conditions were very good, the company didn't seek a 25

1 deferral then, did they?

A. Up until 2001 no matter whether the years
were good or bad did the company ask for such a
mechanism.

5 Q. And there was no ERM in place during the good 6 hydro years, was there?

7 A. For neither the good nor the bad years8 preceding 2001.

9 Now at page 4 of your rebuttal testimony, you Q. 10 state that excluding data violates statistical theory, 11 and there's several other places where you rely on 12 statistical theory for your argument. Can you tell us 13 kind of what your background is in statistical theory? 14 Α. I have a degree in economics, which included 15 a number of courses in statistics. I have also been 16 applying statistics since I started in the industry in 1991, first providing dualing load forecasting for 17 18 electric utilities and then ultimately doing hydro 19 casting. I have been working with hydro data sets since 20 I began working with Tacoma Power in 1996.

Q. So you don't have any specific training instatistical analysis?

A. I don't think that's what I just said. No, I think I explained that I am -- I'm not a Ph.D. if that's where you're trying to go. I'm relying upon work of

1 Ph.D.'s in this exercise.

2	Q. Do you think that it contradicts statistical
3	theory to exclude poor water years in situations where
4	for policy reasons the Commission has decided that it
5	will apply special rate making treatment such as
6	deferrals to treat abnormal conditions?
7	A. No.
8	Q. Okay. I would like to refer you to page 6 of
9	your rebuttal testimony, and here you argue that
10	Mr. Falkenberg is cherry picking and that he wants to
11	limit the data to the better water years or use the
12	filtered water approach; is that right?
13	A. Could you please give me a line reference
14	there? I mean I could read the whole page, but.
15	Q. Basically it's contained in lines 1 through
16	7.
17	A. Okay.
18	Q. Now wouldn't you agree that Mr. Falkenberg
19	excluded both the good water years and the bad water
20	
20	years that were 1 standard deviation from the mean?
20	years that were 1 standard deviation from the mean? A. The concern was not whether or not he
21	A. The concern was not whether or not he
21 22	A. The concern was not whether or not he excluded both sides of the mean, working on both sides

can see that actually if you would like to visit the
 next couple illustrations there, we can work through
 that.

4 Q. Well, I think what -- and your referring to5 your illustration number 2 on page 7?

6 A. 2 and 3, that's right.

Q. I think what Mr. Falkenberg said was that it didn't matter as much which water years you used if you excluded the water years that were more than 1 standard deviation from the mean; isn't that right?

11 Α. To take Mr. Falkenberg to an extreme, I mean 12 to the extent you take -- again, let's not forget this 13 data has been shown to be trendless. Statistically 14 normal -- when you have a normal distribution of data, 15 data that is trendless, normally distributed, to pick 16 and define 1 standard deviation as extreme is just an inappropriate interpretation of statistical theory. But 17 18 just to step into that, if you think of a large data set 19 and if you narrow the bands close enough to the average, 20 well, you always end up with this average. It's granted 21 you end up excluding highs and lows, and that would make 22 sense if an average water, excuse me, if a low and a 23 high water year were the same impact to a company. But 24 in actuality, a bad water year hurts us a lot more than 25 a good water year helps us. So by using this approach,

we're using just a -- clearly not an extreme, just a 1 2 filer of 1 standard deviation or a sigma as proposed by 3 Mr. Falkenberg, you're eliminating essentially all the 4 variability that's inherent in the data set, and you're not getting a true reflection of our power supply 5 variability, and that's my concern with the way 6 7 Mr. Falkenberg approaches, excuse me, approaches the 8 problem.

9 Q. Now wouldn't you recover the extreme years 10 that Mr. Falkenberg is excluding either plus or minus 11 through the ERM?

12 Α. Dr. Mariam in the Puget case explained that 13 it is extremely important to consider all of the hydro 14 years when you're dealing with an ERM, and I looked at 15 some mathematics with the ERM in place. And, in fact, 16 if you do the filtering approach as Mr. Falkenberg 17 proposed, it actually creates a chronic undercollection 18 problem. In other words, if you set the revenue 19 requirement too low, which is essentially what's happening here, you have the deadband, which the company 20 21 ends up picking up the deadband portion of that and then 22 10%, so what I would define as a chronic undercollection 23 of costs. All costs aren't passed through to customers 24 or to the company in this case. There's a middle ground where costs are shifted, and if you don't get the mean 25

values right, you necessarily are going to bias the
 result.

3 Q. Now Mr. Buckley took issue with that 4 conclusion, correct, if you look at page 4 of Exhibit 5 303?

6 Α. Mr. Buckley sets up the hypothetical whereby 7 the Commission will allow us as he calls it an insurance 8 premium. They give us the ERM, and then we come back 9 and get to double collect. Nowhere in the evidence 10 Mr. Falkenberg, I mean he made this statement, but I 11 don't believe that to be the case that the company would 12 be afforded that opportunity. I don't think there would 13 be a necessity to do that. For normal conditions in a 14 bad hydro year, the energy recovery mechanism would pick 15 up the variability there.

16 Q. But Mr. Buckley concluded that it would be 17 appropriate to use the filtered water approach even 18 where a power cost adjustment mechanism was in place; 19 isn't that right?

20 A. He did come to that conclusion, yes.

And just to the point, Dr. Mariam came to theexact opposite conclusion, as have I.

Q. If you could look at page 10 of your rebuttaltestimony at lines 5 to 15.

25 JUDGE CAILLE: And again, that's Exhibit 174.

MR. VAN CLEVE: That's correct, Your Honor.
 BY MR. VAN CLEVE:
 Q. Now in the 125 year study, wouldn't you agree

4 that Mr. Falkenberg included the very best hydro periods 5 from the 1890's as well as the very worst which occurred 6 from 1929 to 1938?

A. And you're referring here again to his
filtered approach when he looked at this data; is that
correct?

10 Q. Yes.

11 A. Which gets back to my other point, if you 12 essentially eliminate the variability and the expense, 13 you come up with a mean value. But if -- you're 14 basically taking all the results out that the -- get to 15 the gist of the issue, which is trying to quantify how 16 much variability is inherent in our power supply.

Well, I think that the point that 17 Ο. Mr. Falkenberg was getting at is that the period 1929 to 18 19 1938 reflected some, and if you look back at your chart 20 on page 7 of Exhibit 174, that that reflected some of 21 the worst hydro conditions in the last 250 years if you 22 go back and look at some of these projections in these 23 studies that Mr. Falkenberg cites. So his point I 24 think, wouldn't you agree, is that if you're going to include those years that you should use the filtering 25

approach, but if you're not going to use the filtering 1 approach, then you need to include all available years, 2 3 the 125 year study? 4 He attempts to make that point, yes. Α. 5 Okay. I would like to ask you a few ο. 6 questions about the hydro shaping adjustment, and I think that is your testimony starting at page 12. 7 8 Α. Of my direct? 9 No, that's of your rebuttal Exhibit 174, and Ο. 10 I just -- this is a question about how you modeled the 11 output or spread the output of the hydro resources in 12 Aurora, and can you tell us first how Aurora dispatches 13 the thermal resources? 14 Α. The thermal resources? 15 Ο. Yes. 16 Α. After Aurora has completed the dispatch of the hydro system, it steps back and dispatches the 17 18 thermal resources, and it does so by looking at the essentially the margin between the cost of running the 19 plant and the market price at that time in that hour. 20 21 Q. So then --22 And then if --Α. 23 So is that what they refer to as economic Q. 24 dispatch? 25 For a thermal plant, yeah, that's how it's Α.

1 dor

1 done.

Q. And it's dispatched to a trading curve; is
that right?
A. It's dispatched, yes, to a market price.
Q. Now are hydro resources modeled differently?

6 A. They are, yes.

7 Q. Can you explain how the -- what that's based 8 on?

9 In the Northwest we have a whole lot of Α. 10 hydro. Avista is 50% hydro, which is about twice as --11 we're twice as energy dependent on hydro as Puget is and 12 four times as dependent as PacifiCorp, so it's important 13 to get this right. But just stepping back for a minute 14 on how industry standard models work, they essentially 15 shape the load. In other words, they do peak shaving. 16 So your goal with your hydro plants is to reduce your obligation to swing your other resources. So you will, 17 18 for example, if you have a morning and an evening peak, 19 you will tend to run your hydro plants in the morning 20 and the evening. In Aurora this is emulated in Aurora 21 by going through and taking a look at the peakiness of 22 the resources, accounting for the operational reserve 23 requirements, all these different things. In fact, I 24 can go through in my testimony, talk a little bit more in detail about reasons that we can't necessarily run a 25

maximum/minimum every hour. But within the constraints 1 2 that are set up on each hydro resource, the model will 3 then essentially what we call peak shave and slice off 4 those peaks and then from there, like I explained before, then we go into the hydro, excuse me, the 5 6 thermal dispatch. 7 What is, in this case, what is the Aurora ο. 8 dispatched hydro based on? 9 Well, we're probably going to have to Α. 10 bifurcate this. One is for the market at whole, the 11 total market, so we're talking about the 30,000 12 megawatts of hydro up in the Northwest, and that is 13 essentially done to shave peaks. That is the algorithm, 14 it goes through and shaves peaks. 15 ο. Well, is it correct that you modeled the 16 hydro using historical dispatch records? Yes, one of -- with any model you have to 17 Α. 18 make certain simplifications, and with Aurora what happens is for each load area, and there's actually one 19 20 for Oregon, Washington, Northern Idaho as an example, 21 and actually three quarters of hydro, the high -- excuse 22 me, 50% of the hydro electric base is in that area. 23 About 75% of Western interconnect hydro capability is in the Northwest, which is a little bit bigger than that, 24 25 BC, Alberta, Southern Idaho, and Western Montana. But

for OWI, Oregon, Washington, Northern Idaho, try not to
 use the acronym if I can help it, there's essentially
 it's modeled as one large hydro electric plan.

4 And EPIS, the vendor of Aurora, goes through and looks at historical data, and they hire people. For 5 6 example, they have an individual who came from a power 7 planning council who has had a lot of experience doing 8 hydro modeling. And they create a, I hate to use the 9 word generic, but that's really kind of what it is. 10 It's essentially if we had one super hydro unit to 11 provide all the hydro electricity in the Northwest, and 12 in the case of that unit there's a lot of run at river 13 plants in the Northwest, and our system has more 14 capability shifting energy to the peak hours to reduce 15 customer costs than the average hydro electric resources 16 are in the region.

17 So were we not to use the hydro shaping 18 factors to push more of our hydro energy into the peak 19 hours, we would be dispatching our plants like the rest 20 of the plants in the Northwest and not adequately 21 reducing our customers' costs. So that's why we had to 22 bifurcate and move -- and actually model our resources 23 separately to ensure we got enough energy into the 24 valuable peaking hours.

25 Q. I guess my question was, did you use

1 historical records for the dispatch of the Avista hydro
2 resources?

3 Α. Yes, for the Avista hydro resources we used, 4 as it states in my testimony, a five year average. And I think the criticism that Mr. Falkenberg 5 ο. makes of that is that the operators actually dispatch б 7 with the knowledge of what the market conditions are, 8 not based on what the five year average is; isn't that 9 right?

A. That's Mr. Falkenberg's assertion.
 Unfortunately I think he's mistaken in his understanding
 of that issue.

13 Ο. So the operators actually do dispatch the 14 hydro resources based on the five year average? 15 No, and what my testimony explains is the 5 Α. year average is extremely similar to a 1 year average, a 16 10 year average, or a 15 year average. Our loads still 17 -- the weather seems to be reasonably similar year to 18 19 year, if you look at historical load and generation 20 patterns you get very distinguished shapes. When you 21 look at -- when you're teaching a new analyst what a 22 load shape looks like, and many of us have probably seen 23 some simplified examples, you know, you have probably 24 seen examples where the double hump, you got the morning and the evening peak, and in our service territory in 25

the summers you have really one extended peak that goes 1 over time. Well, those -- they're simplistic 2 3 representations, but they're a representation of 4 reality, because that's really how the system operates year to year independent necessarily of the specific 5 load you're serving, which I think one could argue that 6 7 our load is fairly similar year to year. But the point 8 here I'm trying to make is the load shape year to year 9 is very similar on our system, and that's what my 10 testimony explains.

11 Q. And do the dispatchers consider market prices 12 when they dispatch the hydro, the Avista hydro 13 resources?

A. Probably the clearest way to get the answer you're looking for is our hydro operators maximize the value of the hydro turbines within the limitations of the hydro electric system.

Q. So if there is discretionary energy, they
could shape it to periods when market prices are higher?
A. And they do, yes.

Q. And they do. And looking at a five year historical average does not necessarily capture that; is that correct?

A. No, that's not correct. I -- it would -again, as I mentioned earlier, any model requires some

simplification. You can't get everything right in a 1 2 model no matter how large it is. If you go back and 3 look at the 5 year average, 68.1% of our energy was 4 generated, by our hydro resources, was generated on peak. The 10 year average was 67.9% I think, and 15 5 6 year average was 67.7%. The 5 year average actually manages to shove 68.4% of our hydro electric energy into 7 8 the on peak hours. So, you know, going back to is the 9 model behaving reasonably and representing our system 10 accurately, I think that's an excellent way to make that 11 measurement. 12 ο. Now the adjustment that Mr. Falkenberg made

13 was based on the output of just the Clark Fork hydro
14 resources; is that right?

15 A. That's my understanding, yes.

16 Q. And at page 18 of your rebuttal testimony,17 Exhibit 174.

18 A. Yes.

19 Q. Well, let me ask you first whether you 20 understand that Mr. Falkenberg used the maximum hourly 21 hydro generation from the inputs that Avista prepared 22 for the Clark Fork, which are a 5 year average of 23 monthly maximum loadings.

A. He used, yeah, he based -- essentially in his
analysis, his spreadsheet analysis, is he looked at the

maximum and the minimum for every month that came out of 1 Aurora and used that to set his dispatch. 2 3 Ο. So he used the same maximum as you did? 4 Α. Yes. And if you look at your chart, illustration 5 Q. number 6 on page 18, it shows that he never dispatches б 7 the Clark Fork resource at more than 460 megawatts; is 8 that right? 9 Yeah, the maximum generation level on that Α. 10 chart is 400, well, subject to check, 460, looks like 11 that on the chart. 12 ο. And Clark Fork that you're referring to here 13 includes the both Clark Fork and Noxon Rapids; is that 14 right? 15 Noxon, the upstream storage project, and Α. Cabinet Gorge, the downriver, downstream project, yes. 16 And if you look at your chart on the next 17 Ο. page, page 19, that shows the name plate capacity of 18 those facilities at 778 megawatts; is that right? 19 20 Α. That's probably the least important thing on 21 that chart, but 778 is referenced. 22 And would you also agree that what's depicted Q. 23 in this chart were all bad water years? 24 Α. All but 2002 would be, yeah, an average or a below average hydro year. Yeah, 2002 was the one year 25

that was modestly above average or average. 2001 is the
 big outlier in there.

3 Q. And do you have Exhibit 306, which was the 4 exhibit to Mr. Falkenberg's testimony that had the hydro 5 data Aurora results?

6 A. Yes, I have it before me.

Q. And if you look at page 3 of Exhibit 306, the years 2000, 2004, those are the years that are depicted in your chart, correct?

10 A. Those are two of the years that are, yeah, I11 guess if you're looking for a comparison.

Q. And I guess what I'm comparing it to are the ten years that occurred before that that the hydro generation is, in many years, is substantially higher than the 456 megawatt limit that Mr. Falkenberg used in his analysis?

A. I think my understanding is you're comparing
capacity to energy here; am I interpreting your question
correctly?

Q. I think I'm comparing capacity to capacity.
A. Okay, you'll have to help me, rephrase the
question.

Q. Well, I guess I am comparing capacity to energy, you're correct. And basically the point is that in good water years that the -- that those plants can

operate significantly higher than what -- at a 1 significantly higher level than what Mr. Falkenberg 2 3 assumed. 4 It appears to me that this chart, you're Α. referring to a column of data that includes all of our 5 projects added together, not just for the Clark Fork. 6 Okay, just a couple more questions. 7 Q. 8 JUDGE CAILLE: Mr. Van Cleve, are you going to a new area, because this would be an appropriate time 9 10 for us to break if you are. 11 MR. VAN CLEVE: Yes, I am. 12 JUDGE CAILLE: All right, why don't we take a 13 15 minute break, we will be back at 3:15. 14 (Recess taken.) 15 JUDGE CAILLE: We're back from our mid 16 afternoon recess, and we are taking care of an outstanding exhibit. 17 MR. FFITCH: Your Honor, this is yet another 18 excerpt from the response to Public Counsel 217. It is 19 20 confidential, and it does relate to OASIS revenues. I 21 would propose that we add it to the cross exhibits for 22 Mr. Falkner. 23 JUDGE CAILLE: So that would be Exhibit 122 under Falkner. 24 25 MR. FFITCH: Thank you, Your Honor, and I can

provide 8 copies for the Bench. 1 JUDGE CAILLE: Please. 2 3 MR. FFITCH: And distribute it at this time. 4 JUDGE CAILLE: Yes. 5 122C, may I ask if there is any objection to the admission of this exhibit? 6 7 MR. MEYER: None. JUDGE CAILLE: All right, then 122C is 8 9 admitted. 10 MR. FFITCH: Thank you, Your Honor. 11 JUDGE CAILLE: And, Mr. Van Cleve, I believe 12 you were in the process of your cross-examination. 13 MR. VAN CLEVE: Thank you, Your Honor. BY MR. VAN CLEVE: 14 15 ο. I would like to ask you, Mr. Kalich, about 16 the issue with the Colstrip upgrade, and if you can look 17 at Exhibit 178C. 18 MR. MEYER: Excuse me, what exhibit number? MR. VAN CLEVE: 178C. 19 MR. MEYER: Thank you. 20 21 Α. Okay. 22 BY MR. VAN CLEVE: 23 This data response talks about a proposed Q. upgrade to Colstrip in 2006; is that correct? 24 25 A. Actually we're talking about two upgrades,

one that would happen potentially in mid '06, the second one happening mid '07. There's been reference in this proceeding to 50 megawatts of capacity, I just wanted to make it clear we're talking about a little under 4 megawatts of increased capability for each unit of Avista's share for the 15% ownership of that 50 megawatts.

8 Q. And you would agree that that update or the 9 upgrade in 2006 is expected to occur during the test 10 year?

11 Α. I don't know that I can say that. The 12 analysis that's included in this exhibit presumes that 13 that would occur. In other words, oftentimes when you 14 do an economic analysis, you would do an evaluation and 15 see if you would want to move forward with a project, so 16 you will put a maybe an estimated time in there when it 17 might occur, and I think that's what -- I assume you're 18 referring to the spreadsheets.

19 Q. Right. If you look at the first spreadsheet 20 at the bottom it has date of 10-28-2004.

21 A. Yes.

Q. And can you tell us what progress has been
made on implementing these upgrades since then?
A. I can tell you that to my knowledge there has

25 not been -- trigger hasn't been pulled if that's the

right phraseology. The analysis that was done back in 1 2 October of last year was preliminary work based on some 3 initial work that the -- again we're a 15% owner, so we 4 don't really have controlling interest of these projects, and we kind of follow the crowd. Follow the 5 6 crowd isn't the right word, but we certainly are 7 participants, so we had some preliminary information. And then based upon that preliminary information, I was 8 9 asked to review the economics to see if we thought it 10 might be a good idea to proceed forward with these 11 upgrades. 12 Ο. And what did you conclude? 13 Α. That the upgrades based upon the costs 14 provided in the preliminary estimates from the vendors 15 looked attractive. 16 And do you think personally in your opinion Ο. that the upgrade will be completed in 2006? 17 18 I can't say that it will be. Α. 19 Q. Have you been given a budget for the upgrade? 20 Α. I have not. The only numbers, again the 21 analysis here was based on some preliminary information, 22 detailed work discussion with vendors, so there's no 23 budget, no finalized numbers that I'm aware of. 24 ο. And are you the person who's responsible for following this project? 25

No, I'm not, we have an engineer assigned to 1 Α. that task. 2 3 Ο. And have you asked him whether there's any 4 new information about when the upgrade is going to be completed? 5 6 I have not been made aware of any new Α. information. 7 And would you agree that in calculating his 8 0. 9 adjustment for the upgrade that Mr. Falkenberg did 10 include the capital costs? 11 Α. You're asking me back to his direct testimony 12 on table, what was that, on page 4? 13 Q. Right. 14 Α. His summary of the recommended adjustments 15 included both the value of the upgrade as well as the 16 putting capital under rate base? 17 Ο. Yes. 18 Α. Is that what --JUDGE CAILLE: We're referring to Exhibit 19 20 Number 301 on page 4. 21 Α. That's what his table does illustrate. But I 22 haven't confirmed the numbers specifically here. I mean 23 I can -- I guess they look reasonable based on the numbers in that exhibit we just looked at previously. 24 25 Q. Okay. I would like to ask you about the

Colstrip maintenance adjustment. Could you look at page 1 2 21 of your rebuttal testimony. 3 Α. Did you have a line there? 4 JUDGE CAILLE: Mr. Van Cleve, could you help us with the exhibit number. 5 MR. VAN CLEVE: Sure, Exhibit 174. 6 7 JUDGE CAILLE: Thank you. And the page again 8 is? 9 MR. VAN CLEVE: 21. 10 BY MR. VAN CLEVE: 11 Ο. Isn't it correct that Mr. Falkenberg found a 12 problem in the way the Colstrip maintenance was modeled 13 in your original case? 14 Α. Mr. Falkenberg did some mathematics based on 15 a historical period and came to a different, a modestly 16 different result regarding the historical maintenance periods at Colstrip. 17 18 Well, wasn't the -- didn't the original model Q. run have the maintenance occurring across all hours of 19 20 the year? 21 Α. Oh, I'm sorry, that was in my direct 22 testimony. 23 Q. Right. Yes, the company identified during the, and I 24 Α. don't remember the specifics of how it went, but 25

certainly once that issue was identified, the company 1 2 moved to change the maintenance periods. It was 3 unreasonable to have maintenance occur around the year, 4 which I think is what you're getting at that Mr. Falkenberg pointed out in his testimony. 5 6 ο. Right. And so the debate now between you and 7 Mr. Falkenberg is about what are the right assumptions 8 for when that maintenance will occur, right? 9 Α. Yes. 10 Ο. And it makes a difference when the 11 maintenance occurs because that low cost coal resource 12 has to be replaced with market purchases, and market 13 purchases vary by month; is that right? 14 Α. I guess I will answer yes. 15 And generally do the operators of Colstrip Ο. 16 try to schedule the planned maintenance in the months when it will be least costly to the owners? 17 18 Probably need to provide some more Α. 19 illustration here on how the maintenance actually is 20 planned. If you look in actually one of our exhibits, 21 and you may well take me to that exhibit, you will see 22 for 2005 and 2006, excuse me, 2006 and 2007 Avista has 23 within its position report planned maintenance to occur in essentially April, May, and June, with most of that I 24 think occurring in April, or excuse me, May and June. I 25

mentioned earlier we're a 15% owner. We don't control
 the maintenance schedule.

3 In actuality at this point there is no 4 maintenance schedule for the plant. I think any operator of a coal plant may well want to perform that 5 maintenance in April, or excuse me, in May and June, but 6 the reality is that circumstance don't allow it whether 7 it's obtaining labor to do that maintenance, whether 8 it's obtaining materials, or whether it's the fact that 9 10 the plant has some poor performance issue. In fact, I 11 think specifically in 2003 we had to pull a unit out in 12 March because we had some major failures there.

13 So it's not as simple as looking at when we 14 have a plan in our position report, you have to put it 15 somewhere in your position report, and if you look 16 historically at our position reports, we had hoped to do 17 the maintenance in May and June, in actuality it turned 18 out we did maintenance in March, in April, May, June, 19 and in July.

20 Q. So you assume in your testimony at page 21 of 21 Exhibit 174 at line 12, you assume that 10% of the 22 maintenance occurs in March, right?

23 A. Yes.

Q. And that's generally a more expensive month,power prices are higher than say April or May; is that

1 right?

Yeah, March is probably -- it would be March 2 Α. 3 and then April. March would be expensive, April would 4 be a little less expensive, you know, May is a little less and June is less. I mean there is a shape, and if 5 you look at my direct, we could look at a table in my 6 direct where it actually provides the monthly pricings, 7 but I think you're -- I think March. 8 9 You were referring to Exhibit 176C, and this Ο. 10 is the planned maintenance schedule for Colstrip? 11 Α. This includes both historical and plant. 12 ο. And is there any planned maintenance that 13 occurs in the month of March? 14 Α. In 2003 it looks like we had 10 days in March of maintenance. We have essentially the full month of 15 16 April out in 2004. So there's no -- I'm not sure I can ask this 17 Ο. 18 question without -- is this all confidential information? Can you --19 20 Α. This being the page here? 21 Q. Yeah. Yeah, it's marked as such. 22 Α. 23 Q. Okay, I will leave it at that. 24 One final area I wanted to ask you about was the bidding factor adjustment that you made to the 25

Aurora results. And first I would like to refer you to 1 your rebuttal testimony, Exhibit 174, at page 2, and if 2 3 you could look at lines 29 through 33, could you just 4 read that into the record for us? 5 Α. Sure. 6 Q. 29 through 33. 7 Α. (Reading.) 8 Bidding factors are designed to align 9 forward natural gas and electricity 10 prices so that they reflect current 11 relationships between the two commodity 12 prices. Absent bidding factors and a 13 correct representation of the 14 relationship of natural gas and 15 electricity, company resources are not 16 dispatched in a proper manner. The 17 company's power supply expenses 18 therefore would not be properly calculated absent bidding factors. 19 20 Q. And can you explain how this adjustment is 21 actually done? 22 Yeah, Mr. McIntosh yesterday provided a Α. 23 pretty good illustration, but essentially what is happening with bidding factors -- but let me just pause 24 25 for the intent. The intent as it says here is to ensure

that relationships are reasonable between natural gas 1 2 and electricity. Natural gas is an input into the 3 Aurora model, and natural gas along with the other fuels 4 and the loads in the model actually determine then what resources run and then ultimately what the market 5 clearing price is in every hour that's modeled. So what 6 7 we found when we ran the initial run is there were four 8 months of significant concern in that two of them 9 exceeded a 20% difference and two exceeded 15% relative 10 to the relationship in the forward prices for natural 11 gas and electricity. In other words, well, I will leave 12 it at that, but -- and then if you look at the 13 historical period, they also were out of alignment with 14 the historical period going back, and I have an 15 illustration in my rebuttal testimony on that. So with 16 that in mind, the idea here is to go in and help the model to do a better job of estimating what the price of 17 18 electricity is relative to natural gas, because we have, 19 you know, 500 megawatts of gas plant, so we need to make 20 sure that we determine what the margin or the value of 21 those generating assets are based upon reasonable 22 estimates of the market price.

23 So to do that, getting specifically to your 24 question, Aurora adds what they call a bidding factor, 25 and it's a feature that Aurora has had for many years,

and it's used by many companies to help emulate forward 1 market prices. One of the reasons that the -- one of 2 3 the -- the time it was very popular was during the 4 energy crisis when there were a lot of things happening in the marketplace in real time that maybe people 5 6 couldn't fully understand fundamentally. So in any given hour, the dispatch price is decremented or 7 8 incremented depending on which way the alignment is 9 going to essentially affect the dispatch price of the 10 marginal unit in the WUCC. 11 Ο. So Aurora is a fundamentals model, correct? 12 Α. It is, yes. 13 Q. And it produces a forecast of the market 14 price? 15 Α. The forward, yeah, electricity price, that's 16 true. 17 Of the electricity price? Q. 18 Α. Uh-huh. And that's based on it has data for all the 19 Q. 20 resources in the Western system, correct? 21 Α. Yes. 22 And what you're doing with the bidding Q. 23 factors is you're comparing the Aurora price to the forward electric price to see how they match up? 24 25 That was the exercise that I did, that's Α.

1 true.

Q. Okay. Now for the settlement, you updated the forward gas prices, and you changed the hydro data; is that right?

5 A. No, as I explained earlier, what -- all 60 6 years are run, all I did was simply instead of taking 7 the average of the 60 years we ran, I went back and 8 averaged the 50 years that we had run. So it's the same 9 dataset of the same database, you just don't query any 10 of the data past 1978.

11 Q. Okay. But on the gas price you did update 12 the gas price?

13 A. Oh, I'm sorry, yes, we did.

14 Q. And did you update the bidding factors?

15 A. We did not need to do that.

16 Q. So I think you testified earlier that the 17 forward gas price used in the settlement was from NYMEX 18 prices from May, June, and July; is that right?

A. The updated prices, yes, were from thosethree months, the average.

Q. Okay. Now what forward price curves did youuse for the bidding factors?

A. You know, really we're talking about -- it's
immaterial to the case first of all, and I can back up.
When the prices were done, it was back on our original

filed case, so the prices went up I think it was 1 2 December through February. So the forward curve --3 let's keep in mind what the model is trying to do. It's 4 trying to align the fundamentals of the marketplace. Once you've aligned the fundamentals, there's not 5 6 necessarily a huge difference in how -- the same 7 resources are dispatching to serve load, you just have a 8 higher price of gas. Gas is in larger 95% plus 9 correlation between gas and electricity now, so you 10 really aren't changing the dispatch of resources in the 11 model, you're just updating the marginal fuel cost. So 12 really again the bidding factors are more to adjust the 13 fundamentals of the model. Just because you move the 14 fuel price around really doesn't have any significant or 15 material effect on the result, so the company didn't 16 therefore need to update those.

Q. The company didn't need to, it doesn't create any kind of mismatch to have a gas price from May, June, and July and bidding factors from many months earlier?

20 A. No, the results are --

21 Q. That's --

22 A. It gets --

23 Q. Go ahead.

A. It gets back to, as I explained earlier, once you have cleaned the fundamentals up, the model -- the

1 same resources dispatch in hour X as they did when gas 2 prices were \$1 and some odd cents less. The same 3 resource dispatches, it just has a different gas price. 4 Q. What if the spark spread between gas and 5 electric has changed during that time frame, wouldn't 6 that mean that you do need to update the bidding 7 factors?

8 Α. Oh, I think if the spark spread changed 9 materially you could see some significant things get out 10 of kilter, but the spark spread did not move 11 significantly in that period of time. All that happened 12 was gas -- I mentioned the high correlation, gas and 13 electric are about 95% correlated, everything just went 14 up, both gas and electricity, so the relationships were 15 very similar.

Q. One final question I forgot to ask you about the Colstrip maintenance. On the adjustment that's on Attachment 1 to the stipulation, did you rerun the Aurora model to determine that adjustment? In other words, when you changed from the averaging maintenance across the whole year to the specific months that you picked out.

23 A. I'm sorry, so did I run Aurora?

24 Q. Right.

25 A. I did not, no.

1	MR. VAN CLEVE: Thank you, that's all I have.
2	JUDGE CAILLE: Mr. ffitch.
3	MR. FFITCH: Thank you, Your Honor.
4	
5	CROSS-EXAMINATION
6	BY MR. FFITCH:
7	Q. Good afternoon Mr. Kalich.
8	A. Good afternoon.
9	Q. I would like to first of all go back to hydro
10	normalization. You were asked by Mr. Van Cleve about
11	the dollar impact of different methodologies for hydro
12	normalization; do you recall that?
13	A. Might you be referring to that Data Request
14	151 maybe it was?
15	Q. Well, what I'm remembering is that he asked
16	you for the dollar impact of the settlement methodology,
17	50 years methodology versus I believe he was asking you
18	for the difference between that and the ICNU
19	recommendation in terms of dollars, and there was a
20	discussion about \$8 Million I think at that point.
21	A. Yeah, my recollection is it was looking at
22	the 40 year period of record versus the 50 year period
23	of record, excuse me, versus the 60 year period and you
24	have \$7.9X Million.
25	• Well lette numerie that a little bit Car T

Q. Well, let's pursue that a little bit. Can I

ask you to turn to, and I don't know if you have a copy 1 of this, but Exhibit 287, which is the rebuttal 2 3 testimony of Merton Lott. 4 Actually, I do. Α. 5 ο. Page 14. Did you say page 14? 6 Α. Page 14, there is a table. 7 Q. 8 Α. Yes. 9 On that page. You see that Table 1 entitled Q. 10 Alternative Hydro Normalization Results? 11 Α. Yes. 12 ο. And I assume you have taken a look at that as 13 you were reviewing Mr. Lott's testimony? I did. 14 Α. 15 ο. And what Mr. Lott does there is that he 16 attempts to lay out the cost impact of the different 17 methodologies that have been discussed in this case, 18 correct? 19 That's my understanding. Α. And he gives a source for each of the 20 Ο. 21 different calculations in this table. And if we look at 22 the top of the table, we see that this is -- this 23 represents the 60 year cumulative average approach unfiltered, which is the company's recommendation in its 24 25 initial filing, is that right, that's the methodology?

1 Α. Yes. 2 And the impact, cost impact adoption of that Ο. 3 methodology is \$90.54 Million; isn't that right? 4 Α. Yes. If we go down to the next line, we see that 5 Q. 6 this is the methodology from the settlement, a 50 year cumulative average, and that's an unfiltered approach, 7 that is the settlement methodology, correct? 8 9 Α. Yes. 10 Ο. And the difference there is in the range of 11 \$300,000 or less than \$300,000 between that cost impact 12 and the original company proposal, doing math on the 13 fly? 14 Α. Well, what I'm comparing it to is the number 15 I remember was \$274,000, which is modestly different 16 from these figures, but I understand where you're taking 17 me here. 18 All right. Q. So it's modestly, it's in the range that 19 Α. 20 you're referring to. 21 Q. All right. And as we move down further, the 22 40 year rolling average unfiltered, that figure is 23 approximately \$3 Million lower in impact than the 24 company's original proposal, correct? 25 Α. Yes.

1	Q. And a little less than \$3 Million below the
2	settlement. That methodology is the 40 year rolling
3	average methodology that you had referred to in
4	discussions with Mr. Van Cleve as the methodology that
5	was in use for quite a period of time by this Commission
6	and by companies before this Commission, correct?
7	A. It's a little different. I think it's worth
8	pointing out that this data goes through 2004. I'm not
9	aware that the Commission has used anything besides data
10	that's gone through the Power Pool.
11	Q. That's correct.
12	A. But I understand that the way the math, the
13	algebra or the math was done is essentially, yeah, the
14	rolling, last rolling 40.
15	Q. It's the last rolling 40 in this case, you're
16	correct, that's a useful clarification, that it does use
17	the most recent data up through 2004. But other than
18	that, just conceptually as a 40 year time period
19	unfiltered, the most recent 40 year time period, that's
20	consistent with the I guess I will use the term the
21	traditional or the historic approach that you mentioned
22	of the 40 year rolling average?
23	A. Yeah, and again I just wanted to point out
24	that about 24, about half, more than half of that record
0.5	

25 has not gone through any normalization for reservoir

constraints, irrigation depletion, all of the non-linear
 relationships that are inherent in the hydro symptoms.
 So it's essentially looking at streamflow data versus
 actually going back and doing the work that the Power
 Pool and the Bonneville Power Administration do to what
 I would term normalize the data.

Q. All right. And that comment that you just
made relates to the specific 40 year time period that is
covered by this line item.

10 A. That's true, yes.

Q. Okay, and I'm just getting -- asking you to other than that, separate from that issue, this is the historically employed 40 year rolling average approach?

14 A. Yes.

Q. Okay. And I understand that there is some debate about whether, now getting to the point that you're making, there is some debate about whether to wait for the sort of perfect conditioning or evaluation of those streamflow numbers before you make any kind of hydro calculation, isn't there?

A. Yeah, I think there's -- there are many of us in the industry that would like to see this data be updated more recently. It's just a rather huge endeavor to do, so yes.

25 Q. The most recent data available with the kind

of workup that you're referring to is 1978, correct? 1 Actually, it's 19 -- well, you know, the 2 Α. 3 nuances here, there is a break in methodology at 19 --4 well, actually not, and what we filed for the Power Pool data, actually the assumptions are the same all the way 5 6 through the 60 year data set through 1988. 7 So we have to go back at least until 1988 ο. 8 before you have these kinds of numbers that are, you know, the perfect or quality numbers with the curves 9 10 developed, correct? 11 Α. Yes. 12 ο. But you do -- but there is streamflow data 13 available right up through 2004, correct? 14 Α. That's true. 15 ο. Well, if we go down to the next line, this is 16 simply a representation of the impact of using all the data since 1879 without any kind of statistical 17 18 filtration, correct, based on Mr. Falkenberg's numbers? 19 Α. Yes. 20 Ο. His exhibits? 21 Α. Yes. 22 And that's about \$5 Million less than the Q. 23 settlement level and the Avista level? 24 Α. Yes. Now you had indicated that Mr., excuse me, 25 Ο.

Dr. Mariam in a previous proceeding had recommended 1 using all available data; did I understand your 2 3 testimony correctly? 4 No, Dr. Mariam specifically recommended all Α. available data that had gone through the Power Pool 5 Bonneville normalizing exercise. 6 7 Q. All right. So not the data prior to 1929 and not the 8 Α. 9 data after 1978. 10 ο. All right. 11 And next we come to Mr. Lott's preferred 12 recommendation, which is the most recent 40 years but 13 using the filtering approach that Mr. Falkenberg 14 recommends, right? 15 Α. Yes. 16 And that comes in pretty close to the number Ο. that you get in the line above if you just use all of 17 the data since 1879 without filtering? 18 19 Α. Yes. 20 ο. We see that if we actually filter, the next 21 to the last line, if we actually filter the total amount 22 of data we come with a number that's about \$3 Million 23 lower, correct? 24 Α. Yes. 25 Then we finally get to Mr. Falkenberg's Ο.

recommendation, and I think this is where you were going 1 with Mr. Van Cleve, if we use his methodology which 2 3 involves filtering and also use the years where there's 4 really no sort of discussion about the quality or the preparation of the data, the point you were making 5 6 earlier, use that for that 40 year time period out of 7 that time slot, you come up with \$82.2 Million as Mr. Falkenberg has recommended, right? 8 9 Α. Yeah. 10 Ο. I would like to go on to another area now and 11 ask you to turn to your Cross Exhibit 175. This is not 12 an entirely new area, still involves water, but this is 13 Exhibit 175, and it's the response to Public Counsel 14 118. Do you have that? 15 Α. I have the data request in front of me, and 16 I'm familiar with the data and the graphs that it's 17 referring to. 18 Okay. Now if you turn to page 2 of the data Q. request, you see several columns of numbers. These 19 20 indicate this is streamflow data for these four 21 different locations, correct? 22 Α. Yes. 23 Q. And what's the units that are -- what are the units that are stated here? 24 Second foot days. 25 Α.

0565 Second foot days? 1 Ο. CFS over time. 2 Α. 3 Q. Okay, cubic feet per second over time? 4 Cubic feet per second over a day, yes. Cubic Α. foot per second day I guess isn't the right way to say 5 it, but it's synonymous. б 7 If we go to page 4 of the exhibit, we see --Q. 8 Α. All right. 9 Q. Are you --10 Α. Just actually as you get into more detail, I 11 wanted to make sure that I had the rest of that. I have 12 -- I actually only have the first sheet. I can pull it 13 out. 14 MR. MEYER: May I approach the witness? 15 Α. Okay, I have the whole exhibit, you said page 16 3 or 4? Page 4 at the end of the tables. 17 Q. 18 Α. All right. Okay. And at the bottom there at the end of 19 Q. 20 the tables there are ranges of years represented, and 21 those represent the averages over this period of time 22 taken from this table, correct? 23 Α. Yes. And that's for each one of these locations, 24 Ο. 25 and it's not marked on page 4, but from left to right

that's The Dalles, Priest Rapids, Spokane, Clark Fork, 1 2 correct? 3 Α. Yes. 4 Now reviewing that document, isn't it true Q. that in the column titled Priest Rapids the year 2000 is 5 basically an average year? If we look up at the number б for 2000 it's 119,000, and then we can see down below 7 8 the averages for different time periods. 9 It's just modestly higher than what I would Α. 10 term a long-run average but -- so within a few 11 percentage points anyway. 12 ο. All right. And let's compare it to the 60 13 years time period that the company is using in this 14 case, which is 1929 to 1988, correct? 15 Α. That was prior to settlement, but the initial 16 filing, the 60 year filing, yes. 17 Okay. And is the settlement time period Ο. shown here, that's the '29 to '78 period? 18 19 Α. Yes. 20 ο. Okay, so it's slightly below that number. 21 And if we look at the year 2001, that would appear to be 22 the driest year at Priest Rapids in the entire database, 23 correct, that's 75,000? 24 Α. That's my recollection, I mean subject to check, yes. 25

0567	
1	Q. Would you please turn to Exhibit 145, that is
2	an exhibit that was identified for Ms. Knox.
3	A. Okay.
4	Q. It was Public Counsel Data Request 215.
5	A. I will probably need a copy of that as well.
6	MR. MEYER: Just a moment, please.
7	And again the number was?
8	MR. FFITCH: It's exhibit 145, response to
9	Data Request 215.
10	MR. MEYER: Thank you.
11	THE WITNESS: I've got it, I have it before
12	me.
13	MR. FFITCH: Okay, thanks.
14	BY MR. FFITCH:
15	Q. Now do you recognize these excerpts as pages
16	that we printed coming from one of the documents that
17	you identified here on the cover sheet to the data
18	request?
19	A. Yes, this was from one of our technical
20	advisory committee meetings, one of the early ones for
21	our 2005 integrated resource plan.
22	Q. All right. And the 2005 plan has not yet
23	been finalized, correct?
24	A. It has actually been put out, it's been filed
25	with the Commission.

1	Q. Okay.
2	A. Actually, I think the date on this is wrong,
3	I think that actually that was a 2005 document, not a
4	2004 document. I didn't have either of these staff in
5	my group in early 2004.
6	Q. All right. Well, at the time this data
7	request was provided in August, the 2005 IRP had not
8	been released?
9	A. In August, it was released in draft, it was
10	available in draft form.
11	Q. Okay.
12	A. But not in final.
13	Q. The only reason I'm asking these questions is
14	to indicate why in this document we weren't going right
15	to the IRP.
16	A. Sure.
17	Q. And you can let me know if that's significant
18	in terms of the numbers that we've got here. But
19	another question for you, the reason we're asking you
20	about one of Ms. Knox's cross exhibits is that this was
21	prepared by you, correct, and you were identified as the
22	witness?
23	A. Actually, this was prepared by an analyst who
24	works in my department and works for me, so I didn't
25	prepare it specifically. As you can see from page 2 of

0569 3, it's got James Dahl and John Lyons on it. 1 2 Q. Okay. 3 Α. So two analysts in my department. 4 Q. All right. And I am familiar obviously with the table. 5 Α. 6 Q. You're identified as the witness in any event for this exhibit? 7 8 Α. Yeah. 9 Can I get you to turn to the page marked new Q. 10 resource summary, please, that's page 3 of the exhibit. 11 Α. Okay. 12 Ο. And look at the second and third lines, same 13 area that we looked at with Ms. Knox, and this is 14 information that's responsive to our request for cost 15 data on simple cycle combustion turbines, correct? 16 Α. Yes. 17 And that's what SCCT stands for, simple cycle Ο. combustion turbine? 18 19 Α. Yes. 20 Ο. And the two lines, second and third line, show us that for the Arrow combustion turbine the 21 22 capital cost is \$672 per kilowatt and for the industrial 23 \$420 per kilowatt, correct? Yes, the installed cost. 24 Α. 25 So the Arrow costs about 50% more to build? Ο.

1	A. It does, yes.
2	Q. And if we compare the fixed and variable
3	operations and maintenance expense, which is two columns
4	over, the Arrow is also the more expensive for this
5	category of expense, correct?
6	A. It is.
7	Q. And then we go two columns over again to the
8	transmission costs, and we see that the Arrow has a
9	transmission cost but the industrial does not, in other
10	words the cost is zero?
11	A. Yes.
12	Q. For the industrial. So all the way around,
13	the Arrow is a more expensive item except for the fuel;
14	isn't that correct?
15	A. Yes, that's the advantage of the Arrow
16	derivative unit is in exchange of higher costs for
17	capital and fixed O&M you end up with a less cost to
18	fuel the turbine. In other words, it uses less gas to
19	make a unit of electricity.
20	Q. Right, I think you anticipated my next
21	question, which is if we look over at the fuel column we
22	see that the Arrow has a lower heat rate, meaning it
23	uses less fuel per kilowatt hour of electricity,
24	correct?
25	A. Yes.

Q. Would you agree that if you were only going to operate a single cycle combustion turbine for 200 hours per year for so-called needle peaking purposes, you would be more likely to choose the industrial option?

6 Α. There are going to be circumstances where you 7 might not choose that resource, and it gets back to the 8 size. Think of Avista's system. You know, we own about 9 2,000 megawatts of capacity. You get some economies of 10 scale in these industrial units. Although we have 11 identified it as a 47 megawatt unit, if you land one 47 12 megawatt unit, you may well have a higher capital cost. 13 For the integrated resource plan, we were looking at 14 more of a turbine farm approach so you can bring the 15 capital costs down. So I wouldn't say today that the 16 company would not build an Arrow derivative peaker. I mean one thing, nice thing about Arrow derivatives is 17 18 they are, you know, the economies of scale aren't as 19 great, which means you can build smaller ones maybe more 20 cost effectively, so. But certainly if you had a choice 21 and you could get those economies of scale, the 22 industrial size unit just for pure peaking purposes 23 would be, you know, a more cost effective option. 24 Ο. Well, maybe you have already answered this,

25 but if you were going to operate it many more hours per

year than just for needle peaking, more of an 1 2 intermediate plant, wouldn't the Arrow make a more 3 economical choice because of the better heat rate? 4 I wouldn't define either of these plants as Α. intermediate type resources. They both still fall into 5 6 the peaking category. 7 ο. And just for clarification purposes on the 8 record, can you explain what the term needle peaking 9 means? 10 Α. Actually, I would ask you to define that. 11 That's not a term I use regularly. The first time I 12 have heard it I think actually was inside this 13 proceeding. 14 Q. Well, I'm certainly not an expert in this 15 area and I'm not going to testify, but the intent of the 16 question was to focus on, you know, limited peaks. 17 Short-term peaking needs. Α. 18 Short-term peaking, is that a fair synonym if Q. 19 you would? 20 Α. Whether it's to represent units that aren't 21 used very often? I guess the question isn't clear to me 22 any longer. 23 Well, it has to do with not as much the units Q. 24 but just the demand you're trying to meet. Let's leave it at short-term peaking. 25

Okay. And would these be units we might use Α. 2 for that, is that the question then? 3 Ο. Well, I'm not sure if we really need to get 4 tangled up. I had originally asked you if you were only looking to meet needle peaking purposes if you're only 5 6 going to operate a single cycle combustion turbine for 7 200 hours a year for those purposes, you would be more 8 likely to choose the industrial option, wouldn't you? 9 That was my question. 10 Α. If my only choice was to build one of these 11 two options and I could get the economies of scale 12 identified here and the capital costs, I think that 13 would be a fair analysis. I don't know where the 200 14 hours comes except from a Puget plan IRP that was done a 15 long time ago. 16 MR. FFITCH: Okay, that's all I have for this witness, Your Honor. 17 18 JUDGE CAILLE: Redirect? 19 MR. MEYER: Yes, briefly. 20 21 REDIRECT EXAMINATION 22 BY MR. MEYER: 23 Let's sort of in reverse order return to Q. Mr. Lott's testimony at page 14, that's Exhibit 287, 24 there was a table there that you were asked about. 25

Okay, I'm there. Α.

And I believe Mr. ffitch walked you through 2 ο. 3 the different methodologies displayed on that table. Do 4 you recall that exchange?

5 I sure do. Α.

6 And in that regard, did the company pick the Q. 7 methodology with the highest cost impact, or were there other methodologies that could have been selected that 8 9 would have had a higher cost impact as reflected on the 10 second column?

11 Δ Well, that's one of my concerns when I see a 12 table like this, it would imply that the company did 13 exactly that exercise. Indeed the company did not do 14 that exercise. We emulated how we do our long-term 15 planning and then we agreed in settlement to use a 50 16 year average. There are, if your question is are there 17 periods of time where prices are higher, there surely 18 are. There would be times where the prices were higher if that was the exercise one was trying to perform here. 19 I see. So in the universe of possible 20 ο. 21 methodologies, one could have arrived at yet a different 22 methodology which would have produced a higher cost 23 impact than what the company shows? Yes, that's true. 24 Α.

Okay. Now would you refer back to your 25 Ο.

rebuttal testimony. I'm going to ask you about a couple 1 2 of illustrations. 3 JUDGE CAILLE: And that's Exhibit 174. 4 Q. It is, thank you, 174. There were a few illustrations that you were questioned about, and let's 5 6 begin with the illustration on page 8, that's illustration number 3. 7 8 Α. Okay. 9 What does that purport to represent? Q. 10 Α. On illustration number 3? 11 Ο. Yes. 12 Α. I think first what I would do is I would step 13 back to illustration number 2, and illustration number 2 14 is showing the annual deviation from the long run 15 average in hydro streamflow. And you can see here 16 there's many years above and below the line. In 17 reviewing some of the work Mr. Falkenberg that say that 18 he talked about, it was a 250 year look back at the conditions, there was an interesting comment in there, 19 20 the comment from that study that tree ring study, the 21 period from 1950 to 1987 is anomalous in the context of 22 this record for having no notable multiyear drought 23 events. So that was rather interesting, and here it's 24 somewhat hard to see. I mean my eyes after having 25 looked at this data for quite a while, I can see that

1 trend.

2 But what happened then if you flip the page 3 to illustration number 3 on page 8, you can see here 4 where essentially all I did was roll this, do a five year rolling average, so you really can see what's going 5 6 on here. And you see there are a few years that are 7 below average, but that period of time is predominantly 8 well above average in almost every period of that, you 9 know, when you do a five year rolling average. And that 10 really illustrates what that tree ring study purported 11 to explain. And that's really what these are all about. 12 If you look at the record itself and you go back in 13 time, you can see other areas both before that 40 year 14 period and then after that 40 year period where you have 15 rolling five year averages that are well below the line, 16 the mean value.

Q. And so illustration number 3 in addition to including that data also has brackets, if you will, depicting Mr. Falkenberg's beginning and end point in the 40 years hydro study?

21 A. Yes, that's true.

Q. And again, Mr. Falkenberg not only limits it to 40 years, but then filters out approximately a third of those observations; is that correct?

25 A. I believe his analysis, he has 40 years, when

he gets done filtering he's only remaining with -- he has 24 years left, so I don't know what the math is on that, 16 of 40, so about -- I guess that's about your number.

5 Q. Could we turn lastly to illustration number 6 6, and that is on page 18 of that same exhibit.

7 A. I'm there.

8 Q. You were asked questions about that, what's9 the point of this illustration?

10 Α. Yes, I got -- received as part of a working 11 paper from Mr. Falkenberg his methodology for 12 dispatching our hydro plants, and we talked earlier 13 about the fact that he had minimum and maximum numbers 14 from Aurora so -- and my interpretation was that the --15 his belief there is that accounted for all reserves and 16 all the operational constraints. But what it did, that 17 model did, is it literally sorted market prices from the 18 highest price to the lowest and then just simply moved the hydro either to run at one of two levels like a 19 20 light switch, and we can see it in the description here, 21 you're at 460 or you're at 40 megawatts, on or off, and 22 you can see there's lots of hourly on-off's in here. 23 This only represents 168 hours, could have put more in there, but I really wanted to show how many times you 24 25 have these needle peaks, to use Mr. ffitch's term, we

1 really -- this isn't realistic relative to how we run
2 our models.

3 One thing the way Mr. Falkenberg's work was 4 done on that spreadsheet, it really didn't put the information chronologically, so you couldn't look and 5 6 see, is this a reasonable hydro dispatch or not. So I 7 was able to go back in, do the prices, and re-sort, and 8 put the data into chronological order so I could prepare 9 this information so we could see exactly what was going 10 on here. And in my professional opinion, you can not 11 run a hydro system like this.

12 There was an illustration earlier in my 13 testimony, if we wanted to go there for a moment --14 well, let's not do that, just really shows how 15 historically we have operated our units. We really 16 can't run our plants this way, that's the bottom line. 17 That's the bottom line, okay. Ο. 18 MR. MEYER: That's all I have, thank you. JUDGE CAILLE: Did you have some --19 20 MR. VAN CLEVE: Yes, Your Honor, I just had 21 one follow up on the questioning about illustration 22 number 3. 23 JUDGE CAILLE: Go ahead, Mr. Van Cleve. 24 25

0579 RECROSS-EXAMINATION 1 BY MR. VAN CLEVE: 2 3 Ο. Now for this illustration, Mr. Kalich, you 4 used a rolling average methodology; is that right? 5 That's correct. Α. 6 And are you aware that in the Puget case that Ο. we were talking about earlier that Dr. Dubin testified 7 according to the Commission's order to the 8 9 well-recognized statistical theorum that the use of 10 rolling averages may produce cycles that are not 11 actually present? 12 Α. And that's a strong concern I have with using 13 the rolling, the 40 year rolling average. So again here 14 we're not talking about calculating power supply 15 expenses, we're looking at just a simple amount of 16 streamflow in a river. 17 So you would agree that your technique here Ο. 18 may show cycles that are not actually present? 19 Α. I don't think this indicates a cycle. What 20 it shows is a bias of high flow water years. There's no 21 cycle here per se. 22 MR. VAN CLEVE: Thank you, that's all I have. 23 JUDGE CAILLE: Commissioners, any questions? COMMISSIONER OSHIE: Yes, thank you. 24 MR. FFITCH: I'm sorry, if I may interject, 25

Your Honor, I did have also a couple of recross 1 2 questions, and I'm happy to take them whenever you want 3 me to. 4 JUDGE CAILLE: Why don't you go ahead now. 5 R E C R O S S - E X A M I N A T I O N 6 BY MR. FFITCH: 7 Mr. Kalich, on redirect you were asked about 8 0. 9 other hydro normalization methodologies that yield 10 higher numbers, are any of those alternate methodologies 11 described in the record of this case? 12 Α. The data is described in there, but if you 13 mean is there a calculation at the bottom of a page that 14 comes to those values, the averaging has not been done, 15 all the data is on the record. 16 Is there any testimony from any party about Ο. any of these other methods that yield a higher cost 17 18 impact? No. Again, I am actually concerned that this 19 Α. 20 is the way we're looking at the problem. I think we 21 ought to really go back and look at how Dr. Mariam and 22 Dr. Dubin in their professional trainings have provided 23 really I think the approach to use, really ought to be 24 looking at what the data entails and from what you learn from the data actually determine an approach to 25

1 normalizing your hydro.

2 Well, that's not really what I'm asking. Ο. 3 Your counsel indicated to you or asked you if there were 4 and got you to agree that there were other hydro normalization methodologies that could have been 5 6 employed to yield even higher cost impact numbers than those shown on Mr. Lott's table. 7 8 Α. Yes. 9 And I'm asking you if there is any testimony Ο. 10 or any, well, any testimony in the record describing 11 what those methodologies are. 12 Α. There's not. 13 Q. And are you aware of any order of this 14 Commission over the last 30 years or more adopting any 15 other hydro normalization methodologies that yield a 16 higher cost impact result than any of those shown on 17 this document? 18 It would depend on how you define it. Α. Actually one of the methodologies would be defined as a 19 20 rolling 40 average assuming that you were back, you're 21 back 30 years, so that would be -- it wouldn't quite do 22 it, the 1928 through 1968, the 40 year period ending in 23 1968 is one of the examples. So if you -- basically it's still the same methodology, the question is how far 24 25 back do you roll the clock in time.

1 It's the same methodology, is it not, the Ο. 2 rolling 40 year average that was approved by this 3 Commission? 4 It would be that methodology but backed up in Α. time. 5 6 Right, but I'm asking you about other Q. 7 methodologies as was put to you by your counsel that at least as the question implied could have been used to 8 9 jack up this number but were not, and can you point to

10 any Commission orders where there's ever been approval 11 for any such alternate methodology, whatever it might 12 be?

13 Α. I must have misunderstood my counsel's 14 question, because I wasn't thinking of methodologies in 15 terms of filtering or any other type of new approach. I 16 was referring only to like that 40 year rolling average, 17 so I guess for the record there are no other 18 methodologies that are being testified to here today. 19 All right. Q. 20 Α. By me. 21 MR. FFITCH: Thank you.

JUDGE CAILLE: Commissioner Oshie.

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EXAMINATION 1 2 BY COMMISSIONER OSHIE: 3 Ο. Mr. Kalich, I have just a clarifying 4 question, and it really relates back to your cross-examination by Mr. Van Cleve, and it's you 5 testified that there, of course, there is a difference 6 in cost between your at least what was originally 7 8 proposed by the company, the 60 year hydro study, and 9 the 50 year study that was accepted by the company in 10 the settlement and agreed upon by the settling parties. 11 And the question relates directly to where is that found 12 in the workpapers, and I believe that you stated that it 13 was in Exhibit 11 in the table that was provided in 14 Mr. Norwood's testimony and that the difference in cost 15 is reflected in the CS2 fuel allocation, if you will, 16 that's contained on page 5 of Exhibit 11. Now did I understand it correctly? 17

18 Actually, I was in error in that statement I Α. 19 learned after I got off the stand. What I was looking 20 at in the discussion I had at that time was the numbers, 21 the relative magnitude, and the numbers looked about 22 right, but my understanding after that comment was 23 actually that was some basically -- I'm at a loss for 24 the term, I'm a little embarrassed here, but anyway increasing, basically adjusting that expense into a 25

revenue requirement. 1 2 ο. And so where then is it found, anywhere in 3 the settlement document so that when we want to look 4 back at this we can find it to determine how it's reflected in the final numbers? 5 I think ultimately, as I explained earlier in 6 Α. Mr. Van Cleve's questioning, it wasn't included in that 7 settlement value. 8 9 All right, thank you. Q. 10 Α. No, that was an oversight. 11 12 EXAMINATION 13 BY COMMISSIONER JONES: 14 Q. Mr. Kalich, my question relates to the Aurora 15 model, and I think Mr. Falkenberg in his testimony 16 suggests that perhaps the model deserves extra scrutiny 17 because it's never been used in a rate case by this 18 company before. Is that your understanding, that the Aurora model has never been used in a rate case for this 19 20 company? 21 Α. This is the first time in this jurisdiction 22 that we have used Aurora for rate filings. We have 23 filed two integrated resource plans using the document. 24 ο. Right.

25 And then of course as we mentioned as I think Α.

we learned earlier in Idaho we filed a case recently
 with Aurora.

3 Ο. Based on your statements in the rebuttal, however, are you aware of any flaw either in the inputs 4 or in the way it models the hydro system or the thermal 5 system in which you believe that this Commission should 6 7 give extra scrutiny to the Aurora model given the fact that I think in your -- on page 3 you say that among 8 9 clients in the industry there's Bonneville Power 10 Administration where you used to work and I assume you 11 used the model when you were employed there and other 12 utilities in the region utilize this model?

13 Α. Yeah, this model is in the Northwest and even 14 across -- I will say definitely in the Northwest has 15 become industry standard, Northwest Power and 16 Conservation Council. I had a list, I don't need to reiterate those obviously. What I point out to people 17 18 with the Aurora really is what -- my opinion where I 19 would spend the time scrutinizing is on the inputs into 20 the model. The methodology, the reason this model has 21 been selected by the Power Council more than a decade 22 ago or about a decade ago now and going forward and all 23 the utilities have moved to it is because of its 24 exceptional job of dealing with the hydro resource we have here in the Northwest. One of the individuals from 25

the council I alluded to actually went over and now 1 2 works for EPIS and has really enhanced a lot of the capabilities of that tool. So I'm not concerned at all, 3 4 I think the model does a phenomenal job, and I have used other tools and looked at Midas Gold and some of the 5 other industries, IPM, there's a bunch of these tools, 6 7 and in my opinion this model is far and away a superior 8 tool.

9 Q. And lastly, help me with the difference 10 between what you have called "streamflow data" and then 11 "data adjusted by the Northwest Power Pool"?

12 A. Okay.

13 Q. What is the difference?

14 Α. Streamflow is exactly that. You put a gauge 15 in the river, and you measure how much flow comes by the 16 gauge. As you look back in the record back in time 17 before a lot of the changes to the river systems 18 occurred due to, you know, fisheries, a lot of the fisheries, environmental, and then even get back further 19 20 where you're pulling dams out of the river, back further 21 before we had as much agriculture as we do in the 22 Northwest, are referred to non-linear rela -- non-linear 23 terms here in this proceeding, and those are what I would define as non-linear. And what one needs to be 24 25 able to do to normalize this data is essentially take

today's conditions and back cast, for lack of a better 1 2 term, back cast what streamflow -- based on the 3 streamflow recorded at those gauges how those would have 4 changed were those streams flows in 1929 to have come down through the river system today. And as you know, 5 6 there's storage on the hydro system that affects when 7 the water comes down whether month to month or even year 8 to year on the Canadian system as far as storage. So 9 it's real important to get those right. Streamflow 10 isn't always a great indicator of ultimately what type 11 of generation you can get, you know, once you get those 12 streamflows actually occurred again on our existing 13 system today.

14 Q. So some of those adjustments are covered in 15 your rebuttal testimony when you list on page 15 the 10 16 reasons limiting hydro capability, and I think you just 17 alluded to several of them, environmental restrictions 18 such as flows, operating reserves, things like this? There's a lot of overlap there, yes. 19 Α. 20 COMMISSIONER JONES: Okay, thank you. 21 JUDGE CAILLE: Anything further for this 22 witness?

All right, thank you, Mr. Kalich, you'reexcused.

25 Mr. Ron Peterson.

1	Mr. Van Cleve, are you going to go first on
2	Mr. Peterson or Mr. ffitch?
3	MR. FFITCH: Your Honor, in the event Public
4	Counsel has no cross for this witness, I guess I would
5	only ask if something comes up on the cross of Mr. Van
6	Cleve that I might follow up on.
7	JUDGE CAILLE: All right.
8	(Witness Ronald R. Peterson was sworn.)
9	JUDGE CAILLE: Thank you.
10	MR. MEYER: Thank you.
11	
12	Whereupon,
13	RONALD R. PETERSON,
14	having been first duly sworn, was called as a witness
15	herein and was examined and testified as follows:
16	DIRECT EXAMINATION
17	BY MR. MEYER:
18	Q. Mr. Peterson, for the record, please state
19	your name and your employer.
20	A. My name is Ronald Peterson, and I'm employed
21	by Avista Corporation.
22	Q. And have you prepared prefiled direct
23	testimony marked as Exhibit 81?
24	A. Yes, I have.
25	Q. And any corrections to make to that?

1 Α. None. 2 Q. Are you also sponsoring what have been marked for identification as Exhibits 82 through 94? 3 4 Α. Yes. 5 Were those prepared by you or under your Q. direction and supervision? 6 7 Α. Yes, they were. Is the information contained therein true and 8 Ο. 9 correct? 10 Α. Yes. MR. MEYER: With that, Your Honor, I move the 11 12 admission of Exhibits 81 through 94. 13 JUDGE CAILLE: Is there any objection? Then Exhibits 81 through 94 are admitted into 14 15 the record. 16 And, Mr. Van Cleve, the witness is available for your cross. 17 18 MR. VAN CLEVE: Thank you. 19 20 CROSS-EXAMINATION BY MR. VAN CLEVE: 21 22 If you could, Mr. Peterson, refer to Exhibit Q. 23 96 and also attached to that is Exhibit 96C. I have that. 24 Α. 25 Q. And is the risk policy that's in this data

response, is that the primary tool that the company uses 1 2 to manage its natural gas price risk? 3 Α. It's one of the tools we use, I would say 4 yes, it's the primary one. Q. 5 And in your testimony at page 7 at line 1 --6 JUDGE CAILLE: Excuse me, could you please identify the exhibit. 7 MR. VAN CLEVE: That would be Exhibit --8 9 JUDGE CAILLE: 81? 10 MR. VAN CLEVE: 81, yes, thank you. 11 JUDGE CAILLE: And the page number, I'm 12 sorry? 13 MR. VAN CLEVE: Page 7, line 1. 14 THE WITNESS: I'm there. 15 BY MR. VAN CLEVE: 16 Ο. It says: 17 The purpose of the risk policy is not to 18 develop a specific procurement strategy for buying or selling power or natural 19 20 gas fuel for generation at any 21 particular time. 22 Can you explain what that means? The purpose of the risk policy is to try to 23 Α. 24 manage the company's exposure to open power positions. 25 And what I mean by that is we have a variety of

resources that we can meet our retail load with. We 1 2 have talked about those on and off for the last day or 3 two. We have base load resources such as Colstrip, 4 Coyote Springs, our hydro generation. And we have peaking resources. We also have a load that we need to 5 6 meet. And what we try to do in our risk management process is look forward to what those loads and 7 8 resources will be at different points in time. When we 9 do that, then we can see if we have an open power 10 position. In other words, we might be short of energy 11 to meet our loads, or we might be long energy to meet 12 our loads. Based on looking at that, and we look out 13 about 18 months, we will then make decisions about 14 whether we need to acquire additional power. And that 15 power can be acquired by purchasing gas to run a gas 16 resource or by buying power in the open market. And 17 what we do is we make an economic choice based on 18 whichever is the least cost for customers.

Q. If you refer to page 3 of Exhibit 96, I'm
referring to exhibit page 30, Exhibit 96C, that's the
first page of the risk policy.

22 A. I'm there.

Q. And it says on the lower left-hand corner
that it was revised November 9th, 2000; is that right?
A. Yes.

1 Q. And have you thought about revising it since 2 then?

3 Α. Our risk manager has actually worked on 4 revisions to this policy. I think there may be some supplements that aren't included in here. As I looked 5 6 through this, I noted that this still had the -- allowed 7 the gas procurement activity being done by Avista Energy, and of course that's not the case today. So 8 9 there may be a more recent version of this which I don't 10 have with me.

11 Q. And would you agree that risk management 12 practices have become significantly more sophisticated 13 in the last five years in the energy industry?

14 A. As compared to what?

15 As compared to what they were in 2000. Ο. 16 Α. I think companies have learned a lot in 2000-2001, and actually a lot of the knowledge and 17 18 expertise that occurred and changed was at that time, 19 and that was in response to the Western energy crisis. 20 ο. I would like to refer you just briefly to a 21 page in Mr. Johnson's direct testimony, which is Exhibit

22 181.

23 A. I don't think I have that.

24 MR. MEYER: Just a moment, we'll have to get 25 to it. Which page?

1		MR. VAN CLEVE: Page 12.
2		THE WITNESS: It's coming.
3	Α.	Okay, I'm on page 12, Exhibit 182.
4	BY MR. VAN	CLEVE:
5	Q.	Okay, now this shows the increase in power
6	supply exp	ense that the company is requesting in this
7	case.	
8		JUDGE CAILLE: Excuse me, this is Exhibit
9	181, isn't	it?
10		THE WITNESS: Oh, excuse me, yes it is 181,
11	I'm at the	right page I think.
12	BY MR. VAN	CLEVE:
13	Q.	I'm sorry, I have you on the wrong page, if
14	you could	look at page 8 at line 19.
15	Α.	Okay.
16	Q.	And it says there that:
17		The natural gas expense in the pro forma
18		totals \$70 Million, which is an increase
19		of almost \$50 Million from the test
20		year.
21		Is that right?
22	Α.	That's correct.
23	Q.	And it says that:
24		The increase is primarily due to the
25		addition of the second half of Coyote

1	Springs 2.
2	Is that right?
3	A. That's what it says.
4	Q. So would you agree that adding the second
5	half of Coyote Springs 2 substantially increased the gas
6	risk of the company?
7	A. Yes, I would.
8	Q. And when the company decided to make that
9	acquisition, did it develop a gas hedging strategy for
10	Coyote Springs 2?
11	A. Again, you have to think back to the way we
12	manage our power positions, and it's not about
13	speculating about gas prices and where gas prices are
14	going to go, it's about managing open power positions
15	and fueling the most economic resource for our customers
16	at any point in time. Again, the way we do that is we
17	look out to the future, we balance our loads versus our
18	resources, and then we make a decision on whether we
19	should buy fuel or buy power. We actually do hedge gas
20	for Coyote Springs over time when it's economic to do
21	so. We look out 18 months, and we layer in gas
22	purchases when our risk management guidelines say that
23	you have an open power position that needs to be filled.
24	I think Mr. Norwood talked about that yesterday, but if
25	you don't recall, we have actually hedged 40% of our gas

needs for Coyote Springs through the end of 2006, and
 the average price that we have hedged is around \$7.34.

3 Q. So in other words, 60% of your gas needs for 4 the test year ar unhedged?

At this point in time. Now it's important to 5 Α. 6 remember what I was just talking about. We have risk 7 management meetings monthly where we evaluate our open 8 power positions and decide when it's appropriate to fuel 9 Coyote Springs 2. So between now and the time we get to 10 running the plant in 2006, if it's economic we will have 11 hedged that gas. When we go into the day, if Coyote 12 Springs 2 is economic to run, we would have purchased 13 the gas ahead of time. The only time we're actually in 14 the spot market is if there is an economic decision 15 during that day where Coyote Springs 2 might be in the 16 money or out of the money, and then we'll buy or sell 17 gas to take care of that. But as you get to the month 18 ahead and we're going to be needing Coyote Springs 2, it's already been hedged. 19

Q. So would it surprise you to learn that most
of the other industrial utilities in the Northwest have
much less of their needs exposed in gas market for 2006?
A. I think each utility is going to operate
under their own set of risk management policies and
guidelines. Some may have hedged all of their gas, some

may have hedged none of it, so it wouldn't surprise me 1 2 to see that we're all very different. 3 Ο. And the process that you have to determine 4 whether to hedge gas or not just looks at the differential between gas and electric prices; is that 5 6 right? 7 That's one factor. It also looks at whether Α. 8 we actually need that particular generation asset to meet our retail loads. One thing I might mention is 9 10 that when we don't need Coyote to meet retail loads, if 11 it happens to be economic to purchase gas and run the 12 facilities and sell the power in the open market, we'll 13 do that, and that benefit gets passed through to 14 customers. 15 ο. If you could refer to Exhibit 97. 16 Α. Yes. This is a data response that describes what 17 Q. 18 your fuel acquisition policy is, correct? 19 Α. Yes, it is. 20 ο. And you state in here, and it's five lines up 21 from the bottom of the second paragraph, that the 22 company does not attempt to model potential future gas 23 or electric prices, and I think you also say that in 24 your testimony; is that right? That's right. What we use are actual forward 25 Α.

1 prices for both of those commodities for as far out as 2 we can get them and periods that you can actually do a 3 trade, but we do not attempt to forecast where those 4 prices might go.

5 Q.

So --

A. In the short term. Mr. Kalich does do some
modeling in terms of long-term planning under the IRP.
Q. So given that the company doesn't predict
where gas or electric prices are going to go, would the
company ever enter into a gas contract that was longer
than 18 months?

12 Α. I think that's a fair question. You know, 13 the company has done that in the past without a lot of 14 support, but I think given the volatility that we have 15 seen in the gas price market in the last year, it's 16 something that's important to look at, and we are 17 actually studying that at this point for both the gas 18 distribution company as well as the generation part of 19 our business. I think it's very important that we would 20 review that information with the Commission and the 21 Commission Staff to make sure that they understand and 22 are comfortable with that. Because once you start 23 locking in longer term gas, you're actually speculating 24 on where the gas prices are going to be two or three or 25 four years into the future.

And to the extent that the company doesn't 1 Ο. 2 hedge its gas risk, is that passed on to customers 3 through the ERM after the 10% sharing and the deadband? 4 Again, we do hedge our gas risk, the only Α. question is when we do it. But to the extent the price 5 6 that we hedge at is different than what would be built into this settlement or a general rate case, the 7 8 difference would go through the ERM. I would like to point out that in this particular case, we have agreed 9 10 to a gas price of \$7.25 in the settlement. As I 11 mentioned to you a moment ago, our hedges to date are at 12 \$7.34, forward gas prices for this winter are in the \$12 13 to \$13 range. The lowest prices that we see for 2006 14 are in the \$9 range. And so I think the price that we 15 have set in the settlement is probably less than we're 16 actually going to experience.

Q. And doesn't reducing the ERM deadband from \$9 Million to \$3 Million, doesn't that increase the exposure of customers to this risk of having 60% of the gas supply unhedged for 2006?

A. I think you have multiple questions there,can you restate that, please.

Q. Sure. Doesn't decreasing the deadband basically increase the exposure to gas risks that customers bear?

1	A. That would go both ways. Gas prices go down,
2	they get the benefit. Gas prices go up, they would
3	share in the risk.
4	Q. Right, but you have just testified that you
5	expect them to be higher rather than lower
б	A. Right.
7	Q than what's in the stipulation.
8	A. And that's for just the upcoming year. I
9	can't tell you what happens beyond that.
10	Q. And who do you think is in a better position
11	to manage that gas risk, customers or the company?
12	A. The company clearly.
13	Q. Referring back to the risk policy, Exhibit
14	96C at page 5.
15	A. I'm there.
16	Q. In the second paragraph 6 or 7 lines up from
17	the bottom of that under use of derivatives, there's a
18	sentence that says:
19	Hedging transactions will be entered
20	only after an assessment of the economic
21	effect is analyzed and the accounting
22	treatment is analyzed.
23	A. Are you looking at page 5 on the top of the
24	page?
25	Q. Yes, I'm on page 5 at the top of the page.

A. Sorry, you need to redirect me again here.
 Q. It's under use of derivatives in the second
 paragraph.

4 A. Okay.

Q. And it's talking about hedging transactions being entered into only after the accounting treatment ris analyzed. And my question is, when you're analyzing the accounting treatment, are you looking at whether the cost of the hedge can be passed through the ERM?

10 Α. No, that wasn't the intent of that language. 11 These derivative products can be quite complicated, and 12 the accounting profession has come up with some very 13 complex rules over the last several years, and we want 14 to make sure that we're not entering into some 15 derivative that ends up with a non-intended impact on 16 our financial statements. So that's why we include our accountants whenever we're doing some sort of 17 transaction that we haven't done before. 18

Q. If you could refer back to page 3 of Exhibit
96 under the heading the company philosophy toward risk.
A. I'm there.
Q. It says in the last sentence of that first
paragraph:

While management acknowledges thatincome certainty is impossible, the

1	company's tolerance for earnings
2	volatility from the utility's operations
3	is targeted not to exceed 20% of the
4	utility's normal annual earnings.
5	Is that right?
б	A. Yes.
7	Q. And does that mean that the risk really isn't
8	a concern to the company if the cost can be passed
9	through to customers under the ERM?
10	A. It doesn't mean that at all.
11	Q. Then why is the focus on normalizing or
12	maintaining an earnings range rather than holding down
13	costs to customers?
14	A. The risk management policy is really
15	developed as a way to look at overall corporate risk,
16	and as the board reviews risks one of the things they
17	look at is what the potential impact of that risk could
18	be on the company's bottom line, and I think that's what
19	this is intended to convey.
20	Q. If you could now turn to Exhibit 98, which is
21	another data response.
22	A. Okay.
23	Q. Doesn't this response really indicate that
24	the company has no way to determine whether it would be
25	prudent to make a longer term gas purchase compared to a

1 short-term purchase?

2 I think as we have already established, the Α. 3 company does not try to predict prices, and we do not 4 speculate on where prices are going to go. I think there are many algorithms and techniques available to 5 6 try to predict what prices are going to be, the only 7 thing I know about them is that they're all going to be 8 wrong, and I don't think it's our position that we want 9 to take a position where we would speculate on whether 10 prices are going up or down. That doesn't mean we 11 shouldn't look at other kinds of hedging. And as we 12 analyze this to the future, if we find that hedging a portion of our gas for longer terms such as three or 13 14 five years makes sense, then we would bring that to this 15 Commission to discuss it and see if they agree. But at 16 this point, I'm not willing to speculate and take a risk 17 on where prices are going to go, too many things out of 18 our control.

19 Q. Now you did mention a little earlier that the 20 company had made some longer term gas purchases a few 21 years ago, and you said that there wasn't support for 22 it; what did you mean by that? 23 A. I think we're all familiar with the

24 proceeding in 2001 and 2002. Actually that was the 25 birth of the ERM. Part of that, I think as was

discussed by Staff, was that the \$9 Million deadband was 1 2 essentially put in place because the company had entered 3 into longer term gas contracts that at that time turned 4 out to be out of the market, and in hindsight it was determined that the company should pay the consequences 5 6 for that. Those gas prices by the way happened to be 7 \$6, I would like to have that back today. But those were longer term contracts, and we didn't get a lot of 8 9 support for having entered into them. 10 Ο. That case where the ERM was developed, that 11 was settled, right? 12 Α. Yes. 13 Q. And you absorbed some of the costs of those 14 out of market contracts through the ERM, right? 15 Α. Yes, we did. 16 So you agreed to a settlement where you ο. absorbed those costs, right? 17 We did that. Basically we found out what the 18 Α. 19 litigation position of the other parties was going to 20 be, and it was going to be for disallowance of all of 21 those costs that were over the market price. 22 So is it fair to say that your gas Ο. 23 procurement strategy is designed to avoid disallowances rather than minimize costs? 24 25 Absolutely not. Α.

1 If you could turn to page 28 of your direct Ο. testimony, which is Exhibit 81. 2 3 Α. Okay. 4 This is the section of your testimony where Q. you're proposing to eliminate the deadband in the ERM, 5 б correct? 7 Α. Yes. And in line 11 it states that: 8 Ο. 9 The ERM was designed to provide recovery 10 of costs that are beyond the reasonable 11 control of the company. 12 Is that right? 13 Α. That's what it says. 14 Q. And is it your position that the company 15 doesn't have any control over gas costs? 16 Α. We don't control the market price of gas obviously. We can control when we decide to buy or 17 18 hedge gas. That would be the extent of our control. But I can't tell you whether prices a year from now are 19 20 going to be higher than they are today or lower than 21 they are today. The best I can do is try to manage my 22 open power positions with the most economic resource 23 that is available at the time. If you could turn to page 30 of your direct 24 ο.

25 testimony, Exhibit 81.

1 Α. Okay. 2 This paragraph that starts at line 5, what Q. 3 are you trying to show with that paragraph? 4 What that is trying to illustrate is the Α. volatility in our power costs that can result from 5 6 changes in gas prices. 7 And I guess what confuses me about this Q. example is that it says that a \$1 change results in 8 9 \$10.2 Million in cost changes; is that right? 10 Α. Yes. 11 ο. But when I look at the settlement stipulation 12 where the gas cost was increased by \$1.28, the 13 adjustment to power cost was only \$3.6 Million, so I'm 14 wondering why that is? 15 Α. That's a good question, I don't have an 16 answer. 17 Could it be that the company benefits from Ο. 18 higher gas costs because it's a net seller in the market and that that offsets some of those costs that are --19 20 Α. Could very possibly be, yes. I would have to 21 ask Mr. Kalich to go through the details of his model on 22 that. 23 Q. Now the company is proposing a substantial 24 increase in its power costs in this case, correct? 25 Α. Yes.

1	Q. But it's not proposing or it's proposing to
2	eliminate the deadband?
3	A. That's correct.
4	Q. Now if you looked at the deadband as the
5	company sharing a percentage risk of its power costs,
6	that percentage would actually go down if you didn't
7	change the deadband, right?
8	A. Yes, I understand your math.
9	MR. VAN CLEVE: Thank you, that's all I have.
10	JUDGE CAILLE: Mr. ffitch, do you have any
11	cross?
12	MR. FFITCH: No, thank you, Your Honor.
13	JUDGE CAILLE: Redirect, Mr. Meyer?
14	MR. MEYER: No redirect, thank you.
15	JUDGE CAILLE: Any questions from the
16	Commission?
17	COMMISSIONER OSHIE: No questions.
18	CHAIRMAN SIDRAN: This may be directed to
19	counsel rather than to the witness, but going back to
20	Mr. ffitch's inquiry with respect to, if I understood
21	the witness correctly, with respect to the response to
22	the request that he was referring to, which is Exhibit
23	Number 96, it asks the company to please supply a copy
24	of the current Avista risk management document, which I
25	take your testimony to be this is not the current

0607 1 document. THE WITNESS: I know our risk manager has 2 3 been working on a new updated policy. I'm just not sure 4 where that is, if it's been completed or is in a draft 5 stage. б CHAIRMAN SIDRAN: I would ask that, counsel, you confirm whether this document which is dated 2000 is 7 current, and if it's not, then please provide the 8 9 response to the request. 10 MR. MEYER: And we would be happy to do that, 11 and we'll take that I assume as a record requisition. 12 JUDGE CAILLE: Yes, a Bench Request. 13 MR. MEYER: Got you. 14 CHAIRMAN SIDRAN: That's all. 15 MR. MEYER: Thank you. 16 JUDGE CAILLE: You're excused, thank you very 17 much. (Discussion on the Bench.) 18 JUDGE CAILLE: All right, Mr. Johnson. 19 20 (Witness William G. Johnson was sworn.) 21 JUDGE CAILLE: Thank you. 22 Mr. Meyer. 23 MR. MEYER: Thank you. 24 25

1 Whereupon, WILLIAM G. JOHNSON, 2 3 having been first duly sworn, was called as a witness 4 herein and was examined and testified as follows: 5 DIRECT EXAMINATION BY MR. MEYER: 6 7 Q. Mr. Johnson, for the record please state your name and your employer. 8 9 My name is William Johnson, I work for Avista Α. 10 Corporation. 11 Ο. And have you prefiled direct testimony marked 12 as Exhibit Number 181 as well as rebuttal testimony 13 marked as 186? 14 A. Yes, I have. 15 Q. Any changes to those? 16 Α. No. All right. So if I were to ask you the 17 Q. 18 questions that appear therein, would your answers be the 19 same? 20 Α. Yes, they would. 21 Q. Are you also sponsoring what have been marked 22 as Exhibits 182 through 185 as well as 187? 23 Α. Yes. Were those prepared by you or under your 24 Ο. 25 direction and supervision?

1	A. Yes, they were.
2	MR. MEYER: With that, Your Honor, I move for
3	the admission of Exhibits 181 through 187.
4	JUDGE CAILLE: Is there any objection to the
5	admission of Exhibits 181 through 187?
б	Then they are admitted.
7	And, Mr. ffitch, were you going first?
8	MR. FFITCH: Your Honor, we have been having
9	an arm wrestling match about who was going to go first
10	because I was anticipating a little more time with
11	preparing for this witness, we're moving pretty quickly
12	here. Mr. Van Cleve indicates he's ready with a few
13	questions to go ahead.
14	JUDGE CAILLE: All right.
15	
16	CROSS-EXAMINATION
17	BY MR. VAN CLEVE:
18	Q. Mr. Johnson, if you could look at your direct
19	testimony, which is Exhibit 181, at page 12, now looking
20	at the question that begins at line 9, and these are
21	just clarifying questions, are these numbers Washington
22	jurisdictional numbers?
23	A. These are system numbers.
24	Q. Okay. And do you have, is there somewhere in
25	your testimony where you have the Washington

jurisdictional numbers that equate to this? 1 2 Α. I don't believe there is because of the way 3 we do the ERM is we do it on a system basis and then do 4 the Washington allocation after you change, take the changes in the system cost. 5 6 And what's the allocation factor? Ο. .6516. 7 Α. 8 Ο. Okay. And do you know what these numbers are under the settlement stipulation? 9 10 Α. No, we don't. We haven't made the 11 calculations yet to derive these numbers for the 12 settlement stipulation. 13 Q. But you will need that, you will need to do 14 that in order to calculate the ERM? 15 Α. Once we get a final order from this case, 16 we'll calculate the ERM authorized expenses, yes. 17 Ο. Okay. And if you could refer to Exhibit 202 which 18 was identified as a cross exhibit for you. 19 20 Α. I'm there. 21 Okay, based on our calculation of the average Q. 22 price of these gas prices, it was about \$6.85, and 23 Mr. Peterson testified to a different number, and I just wondered whether that was based on an update of gas 24 purchases that had been made or where that came from? 25

1 I believe he's got an updated purchase sheet, Α. because this was done as, well, it looks like -- I can't 2 3 remember exactly when this was done, but he's got 4 something more recent that has some additional purchases 5 for 2006. MR. VAN CLEVE: And, Your Honor, could we б request that the company provide the update to this data 7 8 response? 9 JUDGE CAILLE: So that is an update to 10 Exhibit 202. Does the company know how soon it can 11 provide that? 12 MR. MEYER: Just a moment. 13 We have just some stray marks, we can get you 14 a clean copy perhaps in the morning and then supply it 15 at that time. 16 JUDGE CAILLE: That would be great, thank 17 you. 18 MR. VAN CLEVE: That's all I have. 19 JUDGE CAILLE: Mr. ffitch. 20 MR. FFITCH: Thank you, Your Honor. May I 21 just have a moment to organize my papers here. 22 23 C R O S S - E X A M I N A T I O N 24 BY MR. FFITCH:

Q. Mr. Johnson, you were the respondent to

0611

Public Counsel Data Request 232, were you not? 1 Which one was that? 2 Α. 3 Ο. It's been marked as Exhibit 203 in the case, 4 and it is the fuel mix report request. 5 Α. Yes, I was. 6 Q. Do you have that in front of you? Yes, I do. 7 Α. Again that's Exhibit 203, and there we asked 8 Ο. 9 the company provide the all-in cost per kilowatt hour 10 for the test year for these various fuel mix components, 11 correct? 12 Α. That's correct. 13 Q. And you provided a worksheet to us, which is 14 page 2 of the exhibit. Essentially this shows the cost 15 of power for each type of resource on the system, 16 correct? 17 That is correct. Α. 18 And I believe we looked at this already with 0. a previous witness, I don't know if you were here in the 19 20 room when we did that. We translated the dollars per 21 megawatt hour into cents per kilowatt hour, among other 22 things. Were you here for that? 23 Yes, I was. Α. Okay. So I'm going to give you a chance to 24 ο. correct the math if you had any concerns there. And you 25

provided that information for the year 2004, which is 1 2 actual data, therefore it's a little different from the 3 test year data in this case; is that right? 4 Well, yeah, I mean that would be the primary Α. difference, that it's the test year. This is the test 5 year, 2004, based on actual generation levels, actual б 7 fuel costs, plants. The pro forma is based on the 8 modeled pro forma generation and pro forma fuel costs 9 for the plants. 10 Ο. All right, so they are a bit different? 11 Α. They could be substantially different based 12 on those differences, particularly for the natural gas 13 fired plants would be substantially different. 14 Q. So the pro forma numbers that are provided in 15 this case by the company for the test year 2004 are 16 substantially different than the actual data shown on this exhibit, am I understanding? 17 18 What I'm saying is the costs can be very Α. 19 different in the pro forma year in this measurement of 20 dollars per megawatt hour than it was in the test year, 21 and that would primarily be for the natural gas 22 resources. Because in the test year we didn't run the 23 natural gas resources very much. We didn't have Coyote 24 Springs available for a good portion of the year, so the denominator for megawatt hours is small, you end up with 25

a very high number of dollars per megawatt hour for 1 2 natural gas plants in the test year, you wouldn't end up 3 with that high of a number in the pro forma. 4 But the figures on this exhibit that we have Q. in front of us are based on 2004 actual generation, 5 6 right? 7 That's correct. Α. Okay. Well, now if I can ask you to just 8 Ο. refer to that as I ask a few questions. First for hydro 9 10 power on the second line, that's a bit more than half of 11 the total power supply for Avista, is it not? 12 Α. It's roughly half, yes. 13 Q. And the cost is about 1.3 cents per kilowatt 14 hour? 15 Α. That's correct. 16 ο. And then second for coal, we're looking at about 20% of the utility's power supply, correct? 17 18 Α. I don't know that for certain, but subject to check that sounds reasonable. 19 20 ο. All right. And that's 2.6 cents, 2.56 cents 21 per kilowatt hour? 22 That is correct. Α. 23 So the coal on average costs about twice as Q. much as the hydro, does it not? 24 25 That's roughly accurate. Α.

Now for the coal plant at Colstrip, there's 1 Ο. also a dedicated transmission line where the company is 2 3 a co-owner of, is there not, is it not? 4 Α. There is, yes. And the company is a co-owner of it? 5 Ο. 6 That's my understanding, yes. Α. 7 Q. And those costs are not included in the costs 8 shown here, are they? 9 I don't have the actual study in front of me, Α. 10 but I believe that this also included that portion of 11 the transmission that is owned by the plant. 12 Ο. All right, so you believe it is included 13 here? 14 Α. I believe that it is included here in these 15 coal costs. 16 All right. Now if you could look at the ο. natural gas numbers, that figure in 2004 doesn't appear 17 18 to include much of Coyote Springs; is that correct? 19 Well, we had an issue with Coyote Springs 2 Α. transformer in 2004, so it wasn't available for 20 21 approximately nine months of the year in 2004, so there 22 is much less generation in 2004 from natural gas than we 23 would normally expect. 24 ο. Well, do you have a sense of what the Coyote

25 Springs addition would do to this line of the chart in

terms of total gas kilowatt hours and average costs per
 kilowatt hour?
 A. No, I don't. But you could look in my pro

forma and my exhibit and take the total generation and the total fuel costs and -- well, you couldn't even do that, because this is an all -- this is a total embedded cost. So no, I couldn't calculate that without actually having the numbers.

9 Q. What is the variable operating cost of Coyote10 Springs at current natural gas prices?

11 A. Well, to do that, you need to tell me what 12 you pick as a current natural gas price. You need to 13 define for the next day, for the next year. If you pick 14 a number, I could tell you what it is.

15 Q. Well, why don't you pick a number.

16 A. Okay.

17 Q. I'm not testifying here.

18 A. Well, if we --

19 Q. You're working for the utility company that 20 uses natural gas as a fuel, and I suspect that you would 21 have more data from which to select than I would.

A. Well, if we take Mr. Peterson's testimony and say we're roughly a little over \$7 a decatherm for gas, you would multiply it roughly times 7 as a 7,000 heat rate to come up with \$49 a megawatt hour for the fuel

1 costs of Coyote Springs 2.

2 Q. Okay. That's for the variable operating 3 cost?

4 A. For the fuel, variable fuel costs.

5 Q. And there's also a capital cost component and 6 fixed operation and a maintenance cost component for 7 Coyote Springs as well, correct?

8 A. That's correct.

9 Q. So if you include all those things, I guess 10 we're working towards an all end cost here, do you have 11 a sense of what the total cost of Coyote Springs power 12 is in the current gas market, let's say use that \$7 13 figure that you were using before?

A. Based on our analysis when we decided to purchase the second half of Coyote, I believe there's probably around \$20 a megawatt hour of fixed cost and fixed O&M embedded in the plant and then maybe a couple, there's a couple dollars of variable O&M, so we would have \$49 plus \$20 plus \$2 as a total embedded cost with using \$7 gas at Coyote Springs 2.

Q. So if I'm figuring this right, that would add up to something in excess of 7 cents per kilowatt hour for Coyote Springs power?

A. Roughly 7 cents, correct.

25 Q. So that's over four times the cost of hydro

and twice the cost of coal, correct, using those? 1 2 Based on these numbers from 2004. Α. 3 Ο. So is it fair to sum up by saying that hydro is more than half the total supply and significantly 4 cheaper on average, coal is about 20% of the total power 5 supply and about average in cost, and natural gas is by 6 7 far the most expensive major source of electric power to 8 Avista; is that a fair summation? 9 I would agree that natural gas is the most Α. 10 expensive resource we have, yes. 11 Ο. And if the company needed additional power to 12 serve load growth, would that come from any of the 13 cheaper sources here from hydro or coal, or would it 14 most likely come from either a natural gas resource or 15 the market? 16 It could come from a variety of sources. I Α. mean we're looking at every source right now, and it 17 18 could come from hydro upgrades, it could come from coal 19 upgrades, it could come from coal plants, it could come 20 from renewables, there's a variety of sources. 21 Well, in terms of likelihood, isn't it more Ο. 22 likely that it would come from a natural gas resource or 23 from the market rather than hydro or coal? I'm really not -- I don't think I can 24 Α. speculate on where we would secure our next resource 25

1 from. But the margin, whether it comes from a 2 Q. 3 company owned resource or from purchase power, is more 4 likely to be a natural gas resource in most cases, isn't 5 it? 6 Can you repeat that question. Α. 7 At the margin, whether this new additional Q. power comes from a company owned resource or from 8 9 purchase power, it's more likely to be a natural gas resource in most cases, isn't it? 10 11 Α. I wouldn't agree with that, no. 12 MR. FFITCH: Your Honor, I do have some other 13 cross, that is the end of that particular line of 14 questioning. 15 JUDGE CAILLE: All right, we will conclude 16 for today and pick this up tomorrow morning. 17 The witness is excused for now, thank you. 18 (Hearing adjourned at 5:05 p.m.) 19 20 21 22 23 24 25