STATE OF NEW HAMPSHIRE 1 2 PUBLIC UTILITIES COMMISSION 3 4 January 29, 2009 - 9:51 a.m. Concord, New Hampshire DAY II 5 6 RE: DG 08-009 7 ENERGYNORTH NATURAL GAS, INC. d/b/a NATIONAL GRID NH: 8 Notice of Intent to File Rate Schedules. 9 Chairman Thomas B. Getz, Presiding PRESENT: Commissioner Graham J. Morrison 10 Commissioner Clifton C. Below 11 Sandy Deno, Clerk 12 13 APPEARANCES: Reptg. National Grid New Hampshire: Steven V. Camerino, Esq. (McLane, Graf...) 14 Thomas P. O'Neill, Esq. Ronald Gerwatowski, Esq. 15 Reptg. Residential Ratepayers: Meredith Hatfield, Esq., Consumer Advocate 16 Rorie Hollenberg, Esq. Kenneth E. Traum, Asst. Consumer Advocate 17 Stephen Eckberg 18 Office of Consumer Advocate 19 Reptq. Pamela Locke: Alan Linder, Esq. (N.H. Legal Assistance) Daniel Feltes, Esq. (N.H. Legal Assistance) 20 21 Reptg. PUC Staff: Edward N. Damon, Esq. 22 23 Court Reporter: Steven E. Patnaude, LCR No. 52 24

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PROCEEDINGS 1 2 CHAIRMAN GETZ: Okay. Good morning, 3 everyone. We'll reopen the hearing in docket DG 08-009. 4 And, I guess, is there anything we need to address before 5 we have the direct testimony of Dr. Chattopadhyay? б MR. DAMON: Yes, just one matter from 7 yesterday. Yesterday, the United Illuminating decision was discussed, and I have a copy of this for the Clerk, 8 and I could hand it to her now. The other thing I would 9 mention is I think on the record I misspoke. I think I 10 mentioned that the Company had sought a rate of return of 11 "9.75 percent". Actually, I looked at that decision again 12 13 last night, and I had remembered it incorrectly. They had 14 sought a rate of return of 10.75 percent. The "9.75 percent" that I had remembered was actually their 15 last found allowed rate of return. So, I apologize for 16 17 that. 18 CHAIRMAN GETZ: Thank you. Anything 19 else? 20 MR. CAMERINO: Let me just -- that 21 correction just further points out one of our concerns about putting something of that magnitude in the record 22 23 without an opportunity to review it. And, it is a Hearing 24 Examiner report, it has really no probative value. It's {DG 08-009} [Day II] {01-29-09}

1 not a Commission determination. 2 CHAIRMAN GETZ: Well, again, I think it 3 goes not to the issue of relevance or admissibility, but 4 the issue of the weight we should give it, and the order 5 will speak for itself, the Draft Order will speak for 6 itself. Is there anything else? 7 MR. DAMON: Staff would like to call 8 Dr. Pradip Chattopadhyay. 9 (Whereupon Pradip K. Chattopadhyay was duly sworn and cautioned by the Court 10 11 Reporter.) PRADIP K. CHATTOPADHYAY, SWORN 12 13 DIRECT EXAMINATION 14 BY MR. DAMON: Good morning. Please state for the record your name 15 Ο. and business address please. 16 My name is Pradip Chattopadhyay. And, my business 17 Α. address is 21 South Fruit Street, Suite 10, Concord, 18 19 New Hampshire 03301. And, by whom are you employed? 20 ο. 21 Α. I am employed by the New Hampshire Public Utilities Commission. 22 23 And, what is your position here at the Commission? Q. I am the Assistant Director of the Telecom Division for 24 Α. {DG 08-009} [Day II] {01-29-09}

1 the NHPUC.

Q. And, you've presented testimony in this docket, which
has been marked for identification as "Exhibit 27",
correct?

5 A. That is correct.

6 Q. And, that testimony describes your experience and so 7 forth. But, for purposes of the record today, could 8 you review your work experience and educational qualifications that allow you to give an opinion 9 regarding the appropriate rate of return on equity? 10 Yes. I have a Ph.D in Economics. And, I have worked 11 Α. 12 on regulatory issues starting 1999. And, I've worked on energy issues, I've also worked on telecom. And, 13 14 I've been working at the New Hampshire Public Utilities Commission since the 2002 August. I also teach 15 intermittently at the Southern New Hampshire 16 University, and I teach Economics there, both 17 Microeconomics, Macroeconomics, Money and Banking, 18 19 etcetera.

20 CHAIRMAN GETZ: Excuse me, Mr. Damon. 21 The Commission has recognized Dr. Chattopadhyay as 22 competent to testify as expert witness in past 23 proceedings. Is there any objection from any of the 24 parties to Dr. Chattopadhyay's competence to testify as an

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1 expert witness? 2 MR. CAMERINO: We have no objection. I just would alert the Commission, I will have some 3 4 questions about some of his background that go to the 5 weight of the evidence, which I assume agreeing to his б being qualifying to testify would not preclude me from 7 asking. CHAIRMAN GETZ: I think, let's -- I 8 would just move onto a brief summary of the testimony, 9 because we've had an opportunity to read it, and then move 10 11 onto cross-examination. 12 MR. DAMON: Okay. 13 BY MR. DAMON: 14 Okay. Actually, what I would like to do, you have Ο. 15 presented your prefiled testimony already. 16 Α. Yes. Do you wish to make any corrections to any of that, 17 Ο. which is Exhibit 27? 18 19 Yes, a minor correction. At Page 33, on Line 9, I Α. 20 recalculated the number which appears at the end of 21 Line 9, and that is "10.64", and not "63", mainly because I corrected for rounding errors. And, so, 22 23 therefore, also on Page 35, as far as that testimony is concerned, the table that follows right after Line 2, 24 {DG 08-009} [Day II] {01-29-09}

1		again, the last number on the right side associated
2		with CAPM should be "10.64".
3	Q.	Okay. Other than that, is your prefiled testimony true
4		and accurate to the best of your ability, recognizing
5		the time frame when it was given?
б	Α.	Yes, to the best of my ability, correct.
7	Q.	Okay. Now, for purposes of today, have you re or,
8		updated your estimate of a reasonable rate of return on
9		common equity?
10	Α.	Yes, I have.
11	Q.	Okay. And, in that respect, you have prepared some new
12		attachments to your testimony, which the parties were
13		given yesterday. And, I would show you a package of
14		documents and ask if those are the updated pages for
15		your updated ROE estimate?
16	A.	That is correct.
17		MR. DAMON: Okay. I would offer this
18	pa	ckage of documents as the next exhibit.
19		CHAIRMAN GETZ: Okay. They will be
20	ma	rked for identification as "Exhibit Number 51".
21		(The document, as described, was
22		herewith marked as Exhibit 51 for
23		identification.)
24	BY M	R. DAMON:

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1 ο. Now, Doctor, when you --2 (Atty. Camerino conferring with Atty. 3 Damon.) 4 MR. DAMON: Oh, okay. Yes. Just for 5 the record, the last page, excuse me, the last page of the 6 exhibit is new. It's not an update of previously filed 7 attachments. But I'm going to ask Dr. Chattopadhyay to 8 explain that. BY THE WITNESS: 9 It's still based on what I had done in the testimony. 10 Α. In my direct testimony, Attachment [Exhibit?], I think, 11 27, I had calculated the CAPM estimate, but I sort of 12 13 described it in the testimony itself, without providing 14 an attachment. And, what I've done this time is, because I had a data request on how I did it, I decided 15 to create this additional sheet, which goes through the 16 17 steps. BY MR. DAMON: 18 19 Ο. Okay. So, it's still the same method. 20 Α. 21 ο. Okay. Let me start from the beginning. What methodology did you follow in updating your rate of 22 23 return estimate? I have --24 Α. {DG 08-009} [Day II] {01-29-09}

1	Q.	Well, let me ask it a little bit more narrowly. Did
2		you follow the same methodologies preparing your
3		updated estimate as you did in your original prefiled
4		testimony?
5	A.	Yes, I did.
6	Q.	Okay. And, did you make any changes to your proxy
7		group?
8	A.	No, I didn't.
9	Q.	Okay. Would you walk us through the pages in this
10		attachment to show what point estimate and range you
11		have arrived at for your
12	A.	Sure.
13	Q.	for today's purposes?
14	A.	Okay. If you go to Attachment XI in that exhibit, just
15		like before, I have first reported three DCF ROE
16		estimates. And, the approach that I have used is the
17		dividend yields are based on, in this updated
18		submission, prices over the period of 24th December to
19		26 January. And, I've continued to use the 2009
20		dividend. And, those yielded the dividend yield, which
21		is 4.34, as shown in Attachment VI. That is different
22		from before, because it's updated. And, those as
23		well as three different ways to measure the growth
24		component. The first method that I've used is the
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1 average of earnings per share growth, dividends per 2 share growth, and the book value per share growth. 3 And, that's shown in the second column of the first 4 table in Attachment XI. Then, I have also used the 5 internal/external growth approach, which basically 6 looks at the retention ratios, the expected growth in 7 ROE, and a measure for the fact that there has been growth in the outstanding stocks. So, that's 8 represented in the third column of that table. 9 The last column is based on purely just the earnings per 10 share growth rate. So, I have three different 11 12 estimates. And, I base my recommended point estimate on the average of the cost of equity estimates of those 13 three estimates. And, it turns out to be 9.33. The 14 approach is exactly the same as what I had used in my 15 testimony dated October 31st. 16 Likewise, just like before, I have also 17

18 looked at an additional estimate, which I call the 19 "market-to-book ratio ROE estimate". And, in that, 20 even the dividend yield is based on the values of 21 retention ratios and, you know, the expected return on 22 equity. And, so, this is slightly different from the 23 approaches that I've used above, but it is still based 24 on essentially the DCF construct. And, the number that 25 {DG 08-009} [Day II] {01-29-09}

1	I get there is 9.08 percent. I do this essentially to
2	get an additional measure, like just I did with the
3	CAPM approach later. And, with the CAPM approaches,
4	same methods were used. The updated numbers, based on
5	Value Line data about the entire stock list that they
б	cover, information based on January 16th, as well as
7	the group of stocks that are dividend paying, I sort of
8	parse it out from that big list. And, so, my first
9	method is based on the entire list, CAPM 1, Method 1.
10	The second method is based on that subset of stocks,
11	which are paying dividends. And, these additional
12	estimates that I get, including the market-to-book
13	ratio estimate, I add, for example, market-to-book
14	ratio to the three other estimates on that sheet. And,
15	I look at the average to get what happens if I'm using
16	additional approach.
17	Likewise, when I add the CAPM and the
18	the Method 1 and Method 2 numbers, I get another
19	central tendency measure, again, kind of representing
20	the point estimate based on different methods. And,
21	then, I look at "what's the range that I've gotten by
22	doing that?" And, I believe it is my job here to not
23	look at the entire range. If you look at the entire

range, it is from 7.08 percent, which is the CAPM
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24

1		Method 1 number, to the last column of the DCF ROE
2		estimates, based on earnings per share growth, that's
3		10 percent, 10.01 percent to be precise. My job is to
4		help the Commission to think in terms of a narrower
5		range. And, when I look at these combinations, number
6		one, only the three DCF ROE estimates, the number is
7		9.33. When I add the market-to-book ratio estimate,
8		and I get another average, it's 9.26 percent. And,
9		then I add the two CAPM methods, using six measures
10		now, the number comes out to be 8.77 percent. So, now
11		I kind of conclude that the range of point estimates
12		that the Commission might be able to work with is from
13		8.77 percent to 9.33 percent. I, however, recommend
14		the first point estimate that I got, because it's based
15		on the DCF construct, which being forward-looking in
16		nature, is the preferred approach.
17	Q.	Okay. You've given a fair amount of data in these
18		attachments that are included in this exhibit. As of
19		what date are these data drawn from?
20	Α.	Okay. Again, I obviously, have been working on this
21		piece by piece, so not all of the data come from that
22		one particular date, but they're still pretty close to
23		what was happening in January. So, for example, the
24		stock prices, I've already talked about it, the data
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1	comes from 24 December through 26 January, as shown in
2	Attachment V in that exhibit. I have used information
3	provided by the Company, as far as the growth
4	components are concerned. That is Attachment VII.
5	And, I included the recent numbers that they have
6	provided me, which are, you know, the recent forecasts
7	by the different entities, Value Line, Consensus,
8	Zacks. And, so, that's what goes into my Attachment
9	VII growth components.
10	I've used the market-to-book ratio, I
11	think I got the number for that was associated with
12	the January 23rd from Value Line. Attachment IX is
13	really, again, based on the latest Value Line
14	publication, you know, they have these charts on
15	different companies. And, so, the ones for the gas
16	companies, the latest ones available, are based on date
17	December 12, I believe, December 12, 2008. And, those
18	are the ones I have used. They all end up influencing
19	the numbers that you see in Attachment XI.
20	As far as Attachment XII is concerned,
21	again, like I said, I've looked at Value Line, the
22	group. I've indicated in my last sheet there that the
23	information was based on January 16th information. So,
24	the current median beta for that VL companies, you
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1		know, in Attachment XII, are based on that. As well
2		as, that for the dividend paying Value Line companies
3		is again based on that. Those numbers haven't changed.
4		But the proxy average for the DCF proxy group that I
5		have has changed from what it was before. I think
6		It was earlier 0.81, and as reported in my October 31st
7		testimony, but it has gone down to 0.69. That's the
8		average. So, that's included there. And, for the 10
9		year Treasury note yields, I have used data again from
10		24th of December to 26th of January.
11	Q.	Okay.
12	A.	And, essentially, to roughly capture what was happening
13		over the last month or so.
14	Q.	Okay. So, to sum up, the attachments that are included
15		in this exhibit are based on the most recent data, much
16		of which is in January 2009?
17	A.	That is correct.
18	Q.	Okay.
19		CHAIRMAN GETZ: Mr. Damon, was this
20	ex	hibit provided to counsel for National Grid prior to
21	th	is morning?
22		MR. DAMON: Yes. Yesterday, yes.
23	BY M	IR. DAMON:
24	Q.	Okay. Now, the last page does not have an attachment
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1		next to it. So, that represents a page of information
2		that does not correspond to the attachments in your
3		original prefiled testimony?
4	Α.	That is correct.
5	Q.	Would you just tell us what is the what data is at
6		the top of that last page, and it's "Pricing Date",
7		something "Year T Note"?
8	Α.	Oh, yes. That's the 10 year Treasury note. So, that's
9		"10".
10	Q.	And, why are you including this in this package of
11		material?
12	Α.	Like I said a while ago, basically, when I described my
13		estimates in the October 31st testimony, I had
14		described it in words in the testimony directly, but
15		sort of walking through the steps. And, all I have
16		done here is, you know, I've concluded that, because I
17		got a data request on, you know, sort of help people
18		understand how I got the numbers, I realized that it
19		might be better to have this attachment additionally.
20	Q.	Now, you show at the bottom of that last page "CAPM
21		Method 1" and "CAPM Method 2"?
22	Α.	Yes.
23	Q.	Are those CAPM methods that you summarize there the
24		same CAPM methods that you described in your prefiled
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1 testimony? 2 Α. That is correct. 3 Ο. So, again, to sum up, in terms of your calculation of 4 the expected dividend yield in your DCF approach, 5 you've used the same approach as before, correct? 6 Α. Yes. 7 ο. With updated numbers? 8 Α. Yes. And, the same is true with your calculation of the 9 Ο. expected growth rates? 10 That is correct. 11 Α. In your prefiled testimony, you discuss briefly an 12 Ο. outlier determination. And, did you continue to use 13 14 the same outlier criterion that you had proposed then? Yes, I have. That, just like in the prefiled 15 Α. testimony, that is used to drop companies from the 16 numbers that show up in Attachment XI that were outside 17 the band that I considered, you know, okay for 18 19 inclusion of these companies. So, what I really mean is, if you look at the third last column of the first 20 21 table there, I talk about "Average plus two times standard deviation". So, those are my upper limits. 22 23 And, the next row is "Average minus two times standard deviation", that's my lower limit. These, this way of 24 {DG 08-009} [Day II] {01-29-09}

1		determining outliers is quite inclusive, because it's
2		really trying to, if I use the term that statisticians
3		use, kind of the "95 percent band". So, really, it's
4		being applied symmetrically. So, anything that falls
5		in the upper two and a half percent or in the lower two
6		and a half percent, I kind of conclude that that
7		company is not statistically representative of the
8		group that I have here. So, it's just a symmetric way
9		of dealing with, you know, concluding that some of the
10		numbers may actually not be representative of what is
11		applicable here.
12	Q.	Okay. Does your point estimate include a leverage
13		and/or a floatation cost adjustment?
14	Α.	No, it doesn't.
15	Q.	I will ask you to comment on the reasons for that later
16		on, but they do not?
17	Α.	Can you repeat that again, I'm sorry?
18	Q.	I'll ask you some questions about
19	Α.	Sure.
20	Q.	why you take that position later on.
21	Α.	Absolutely.
22	Q.	Okay. Turning now, Dr. Chattopadhyay, to your response
23		to Mr. Moul's rebuttal testimony, do you have some
24		general observations that you would like to make?
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1	Α.	Yes, I do. At Page 8, Lines 4 to 17 of his rebuttal
2		testimony, Mr. Moul states that I have been "operating
3		with an inherent assumption that the Company's allowed
4		return should be low." Unlike what Mr. Moul suggests,
5		my two statements, first, that New Hampshire's economy
б		is relatively better than the economic situation
7		characterizing the jurisdictions of my proxy, and,
8		second, "in a time of financial turmoil, investors
9		gravitate to low-risk equities", consistently suggest
10		that my choice of proxy produces a conservative
11		estimate of the cost of equity.
12		His assertion about the inherent
13		assumption that I'm operating on is baseless. The
14		operative words are "relative risk". When the economy
15		is in a downturn or recession, regulated stocks are
16		more attractive relative to the market portfolio, and
17		regulated stocks tend to attract interest at the
18		expense of riskier investments. This relatively tends
19		to put a downward pressure on the required return on
20		regulated stocks.
21		As for my observation on the relative
22		strength of the New Hampshire economy, again relative
23		to the jurisdictions of the companies included in my
24		proxy, the operative words are again "relative risk".
		$\{ DC 08-009 \}$ $[Dav TI] \{ 01-29-09 \}$

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1	My analysis is geared toward asking whether, given the
2	location of its operations, National Grid New Hampshire
3	is less risky or more risky than the situation faced by
4	the gas companies in my proxy's footprint. I have
5	pointed out that the economic situation in New
6	Hampshire indicates that the Company is faced with less
7	risk compared to that faced by my proxy.
8	Contrary to what Mr. Moul states, I have
9	made sure that my proxy group is at least or more risky
10	than the situation being faced by National Grid New
11	Hampshire. In that sense I have, if anything, been
12	careful in ensuring that the Company's allowed return
13	errs somewhat toward the higher side. The same
14	conservative approach is also reflected in my preferred
15	DCF approach that I have proposed in my testimony. My
16	objective is to balance the interest of ratepayers and
17	the investors. And, I have tried to come up with a
18	reasonable recommendation for the return on equity.
19	In contrast, Mr. Moul's rebuttal
20	testimony attempts to increase the requested return on
21	equity based on adjustments that are inconsistent with
22	the basics of finance and reasonable application of
23	statistical concepts. I will discuss few examples
24	here.

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1	He states, for example, at Page 15, Line
2	22 of his rebuttal testimony, that "it is obvious that
3	the 2.86 percent dividend growth rate included in my
4	initial DCF calculation is an outlier", but he is
5	silent on the offsetting outlier in my upper range, you
6	know, when I used "outlier" here within quotes using
7	the terms that he was using. That is the Zacks EPS
8	growth rate, which is actually 134 basis points higher
9	than the next highest estimate, even though the 2.86
10	dividends per share growth estimate is 128 basis points
11	lower than the next lowest estimate.
12	Importantly, looking at Attachment VIII
13	again
14	Q. Now, is that attachment to your prefiled testimony or
15	which attachment are you referring to?
16	MR. CAMERINO: Can we I'd just like
17	some clarification.
18	WITNESS CHATTOPADHYAY: Yes.
19	MR. CAMERINO: This is really a
20	procedural question. I understand that Mr. Moul is the
21	last one who filed written testimony in this case
22	responding to the Staff, that's how the procedural
23	schedule was set up. I had always understood that that's
24	because the petitioning party gets the last word. There
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is a practice here sometimes of letting the witness 1 2 respond live, and, to some extent, you know, that's 3 acceptable. But I'm concerned about the amount of time, 4 new material, etcetera, here, and then are we going to 5 need Mr. Moul to come back and have one last word, which I 6 obviously would greatly like to avoid. So, I'd just like 7 to get some sense, if this is going to go on, in terms of the surrebuttal, for two or three minutes, that's one 8 thing. If we're going to have extensive new testimony, 9 and then a summary of the direct as well, I'm just 10 concerned that we're not going to get done today, because 11 12 I do have a fair amount of cross. 13 CHAIRMAN GETZ: Well, I think you 14 accurately state practice here, that it's common to allow some oral rebuttal or response to rebuttal testimony. 15 And, I guess the way we were proceeding, I had assumed 16 17 that the parties had discussed that to some extent. But, Mr. Damon, can you respond about 18 19 the extent of the oral response that's intended here 20 today? 21 MR. DAMON: Well, Dr. Chattopadhyay has -- thinks it's important for the Commission to hear his 22 23 views on certain of the points that are raised in Mr. Moul's rebuttal testimony. And, in addition, he has 24 {DG 08-009} [Day II] {01-29-09}

1	some remarks regarding the issue that, and it's an
2	extremely important issue in this docket, about the
3	current market situation and market volatility and so on
4	and its effect on the cost of equity estimates. Dr.
5	Chattopadhyay would like very much to give his views on
6	that.
7	CHAIRMAN GETZ: Well, can you address
8	the issue of whether it's five minutes or a half hour that
9	we're talking about here? Because, if I recall the
10	language of our rules correctly, you know, it contemplates
11	that the Petitioner gets to open and close. So, there is
12	the issue of whether National Grid gets another chance for
13	Mr. Moul, if there's extensive oral response here.
14	MR. DAMON: Well, certainly, the Staff
15	has no objection to that. But I think Dr. Chattopadhyay
16	has certain points that he wants to raise for in this
17	case. And, it will be about half an hour, I expect. I do
18	not I'm not going to make him walk through and
19	summarize his prefiled testimony. That, I think, is in
20	the record and it's available.
21	CHAIRMAN GETZ: I guess what we get back
22	to is the issue of due process, in terms of the Petitioner
23	having an opportunity to prepare the cross-examination and
24	consider the option of another round for Mr. Moul.
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1	MR. DAMON: Well, if they want us to put
2	this into an additional round of testimony, I would go
3	along with that. I don't have a problem with that, if
4	that's the solution. It's sort of always a question in
5	these cases where one party goes last with prefiled
б	testimony, and then does that
7	CHAIRMAN GETZ: Well, we have an issue
8	in every case where everybody wants to go last. But I
9	think we need to narrow these, narrows these issues down.
10	I guess I'm inclined to hear briefly the positions of Dr.
11	Chattopadhyay, but then we're going to have to give
12	National Grid a full opportunity to respond.
13	MR. CAMERINO: Could I ask, and I'm not
14	looking to obtain anything that is internal to the Staff
15	here, but it looks like Dr. Chattopadhyay is reading from
16	a document that would essentially have been his prefiled
17	testimony if we'd had another round. If his intention is,
18	you know, if that document doesn't contain something
19	that's internally confidential, maybe we could be provided
20	with that copy so that our expert could look at that and
21	help me to prepare for any cross, that might move things
22	along. As I said, if it's simply what he intends to be
23	delivering orally, it's easier to consider it when it's in
24	writing, rather than trying to make my way through my
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1 notes. 2 MR. DAMON: Well, I would agree to give it to the Company, if that would help move the process 3 4 along. 5 CHAIRMAN GETZ: Well, let's get it out, б and then -- so that we can hear it, and then, if there's a 7 document that's not personal or confidential notes, that, if you want to provide it to counsel, then let's do that 8 at the first opportunity. But let's get the -- let's 9 continue with the direct testimony here. 10 11 WITNESS CHATTOPADHYAY: Can I just for clarification ask, are you suggesting that I need to sort 12 of truncate what I was going to say or I am still going to 13 14 continue with that, but we will be providing the Company the opportunity? 15 CHAIRMAN GETZ: Well, if there is an 16 17 opportunity to truncate, please take it. But we want to get the -- we want to get an understanding. I don't want 18 19 to truncate it in a way that we're not going to understand what the arguments are. 20 21 WITNESS CHATTOPADHYAY: Okay. 22 MR. DAMON: Okay. 23 BY MR. DAMON: So, Doctor, --24 Q.

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1 CHAIRMAN GETZ: To the extent that's 2 helpful, please proceed. 3 MR. DAMON: Yes. 4 BY MR. DAMON: 5 Ο. Please make your points and make them succinctly. 6 Α. Okay. At least what I was talking about before, I want 7 to continue that, and I would say that, when I said "Attachment VIII", that was incorrect, I meant 8 "Attachment VII", and that's from the prefiled 9 testimony. If you look at that, accepting Mr. Moul's 10 position would entirely eliminate dividend growth rate 11 12 from consideration in estimating the return on equity. Now, ignoring expected dividend growth rate is contrary 13 14 to the whole basis of DCF, which is inherently rooted in the prominence of dividends. Ignoring expected 15 dividend-growth is also contrary to the fact that 16 historically majority of the utilities' shareholders' 17 returns have come from dividends rather than capital 18 19 gains. Okay. What about his rebuttal testimony regarding the 20 Ο. 21 CAPM method? I believe, for the purposes of the CAPM method, the 22 Α. 23 most reasonable estimate of the risk-free return at any point in time is the market determined, and I stress 24

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1		that, the market determined yield on the appropriate
2		treasury instrument, which, in my opinion, is the
3		10-year Treasury note. Instead, at Page 25, on Line 1
4		of his rebuttal testimony, he proposes to increase the
5		CAPM estimates by relying on his own estimate of such a
6		yield, based on also other forecasts, but proposes a
7		risk-free rate that is currently about 160 basis points
8		higher than what the market indicates.
9		I think I probably would talk about one
10		more example, and then go into the issue of volatility.
11	Q.	Thank you.
12	Α.	And, at Page 22, Lines 22 to 23, he continues to
13		incorrectly maintain that his leverage adjustment used
14		in his DCF and CAPM methods "has nothing to do with a
15		market-to-book ratio," while effectively using the
16		market-to-book ratios to derive upward adjustments to
17		his DCF and CAPM estimates, again, in my opinion,
18		undoubtedly to support a higher estimate.
19		I could go through other examples, but
20		I'm going to now move onto the issue of volatility.
21	Q.	Okay. Let me just stop you there and ask you a couple
22		questions about that.
23	Α.	Yes.
24	Q.	And, if you look over on Page 9, I think you have some

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1 notes about volatility and so on. Maybe you want to 2 start there. 3 Α. Okay. 4 MR. CAMERINO: What are we referring to, 5 "Page 9"? б MR. DAMON: His notes, that I will 7 provide you a copy of, if you wish. CHAIRMAN GETZ: Well, which, at this 8 point, seems like it should be an exhibit in the case, so 9 10 that we all are going to have an opportunity to understand 11 what the direction is. MR. CAMERINO: I guess my concern would 12 13 be, I'd rather not make it an exhibit, because that may go 14 further beyond what he's testifying to, and then the Commission can rely on it and we haven't had a chance to 15 analyze it. So, if we do not do that, I think that would 16 17 be our preference. 18 MR. DAMON: Well, Mr. Camerino kind of 19 wants it both ways. I mean, you know, we have -- Dr. 20 Chattopadhyay has worked very hard to assess the 21 significance of the rebuttal testimony. He's trying to do that as best as he can. And, now he wants us to, you 22 23 know, move over some points in order to speed things up and so on. And, I'm trying to offer whatever ways 24 {DG 08-009} [Day II] {01-29-09}

1	possible to do that. But, then, now all of sudden, if I
2	introduce it, it's going to have things that he's not
3	testified to orally, and that's a problem, too. It's got
4	to be one way or the other.
5	MR. CAMERINO: Mr. Chairman, this is a
б	legal proceeding, with a lot of money at stake, and the
7	Commission has rules. And, in this case, the Commission
8	set a procedural schedule. And, there's a reason that the
9	Company files rebuttal and the Staff doesn't file
10	surrebuttal. Somebody has got to go last, and that's the
11	party with the burden of proof. And, all we're asking is
12	that the Commission observe its own rules, and that the
13	Staff observe those rules as well. We think that's
14	reasonable.
15	CHAIRMAN GETZ: Yes, I think Mr.
16	Camerino is correct on this issue. It's one thing if it's
17	a brief oral response to rebuttal testimony. But what
18	we're looking at here, it seems to me, to be substantial
19	additional testimony. And, I think due process requires
20	that the Petitioner have an opportunity to review and
21	prepare cross and respond. I don't see any way around it.
22	So, I think that what we're looking at here is either
23	withdrawal of a substantial part of this or some kind of
24	real truncated response, or it's bringing in all of this
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and potentially having another step in this proceeding. 1 2 Well, let me suggest this at this point. Let's take a brief recess and see if you all can work out 3 4 some answer to this. But, I guess, with the guidance from 5 the Bench that I'm persuaded by basically the due process б arguments that are being raised by the Petitioner. And, 7 if there's a way we can wrap this up today, that would be, I think, the preferred approach. But, if we have to have 8 an extra step, then we'll do that as well. But we want to 9 have a full explication of all of the issues to assist us 10 11 in making, you know, a finding on this issue of what's the appropriate return on equity. But I don't want this to 12 13 stretch out unnecessarily. 14 So, does anybody have any thoughts on that approach, taking a brief recess here to see if we can 15 straighten this out? 16 17 MR. DAMON: That sounds like a good idea 18 to me. 19 CHAIRMAN GETZ: Okay. We will be waiting for your call. 20 21 (Whereupon a recess was taken at 10:37 a.m. and the hearing reconvened at 10:58 22 23 a.m.) CHAIRMAN GETZ: Okay. Do we have a 24 {DG 08-009} [Day II] {01-29-09}

1 proposal on how to proceed? 2 MR. DAMON: Yes. The Staff will ask Dr. 3 Chattopadhyay several questions about the matter of 4 volatility. And, the Staff will go into the present 5 situation on yields on utility corporate bonds and so б forth. And, that will take a very short period of time, I 7 expect. So, we're trying to do what the Commission wants 8 in that respect. CHAIRMAN GETZ: Well, let me clarify 9 this. I don't want to send the wrong messages. I want to 10 balance a few things. We want a complete record. We 11 12 don't want to be in deliberations over the next several weeks wishing we had more testimony that would help us in 13 14 our deliberations. At the same time, we want to make sure that the Company's due process rights are recognized. So, 15 16 I was not trying to send a message to remove issues or to not to discuss issues fully. The more important matter 17 18 was, wherever you're going, the Company has the 19 opportunity to prepare itself for cross and to respond in the last instance. So, that's where we're coming from. 20 21 And, I want to make sure that the parties are comfortable with whatever proposal you've come up with during the 22 23 recess. So, with that background, are we -- is everybody 24 comfortable with this agreement that you've reached during {DG 08-009} [Day II] {01-29-09}

1 the recess? 2 MR. CAMERINO: We're comfortable with 3 what Attorney Damon articulated. I think we share the 4 Commission's view that there should be a full record, but, 5 obviously, we need an ability to respond to things that we 6 here anew. And, I think what you've articulated is 7 correct, and it sounds to me like what the Staff has 8 proposed is workable. 9 MR. DAMON: Well, the Staff is proposing this to try to satisfy what the Commission wants. You 10 11 know, the other alternative is to suspend the proceedings 12 briefly and have Dr. Chattopadhyay put this into a short document that would be prefiled, and on which the Company 13 14 could do discovery as well. And, we can do it that way, 15 too. CHAIRMAN GETZ: Well, I guess --16 MR. CAMERINO: If I could explain why we 17 don't think that's a good idea. I don't know whether the 18 19 Commission would entertain that proposal. CHAIRMAN GETZ: Well, let's hear what 20 21 you're --MR. CAMERINO: Well, first of all, that 22 23 we're operating under a statute that obviously has a time frame for deciding the case. And, in addition, there's, 24 {DG 08-009} [Day II] {01-29-09}

1 you know, rate case -- one of the issues always is rate 2 case expense, and we'd like to get this case resolved. We 3 have a lot of people who are involved here and have been 4 brought from out-of-town, and they're being paid to be 5 here. And, we just think that, from a standpoint of 6 administrative efficiency, as well as the interest of the 7 customers, this proceeding has to come to an end. And, 8 you know, we've said already, from a procedural standpoint, you know, the Company bears the burden of 9 proof, that means it goes last. There is always going to 10 be something that the Company said that the Staff would 11 12 like to respond to. And, so, we think that's where we are. And, we really would greatly prefer to finish today 13 14 and not go into another round of written testimony, discovery, and then the Company maybe having Mr. Moul come 15 back and respond to that. Just the case has to end at 16 some point. 17 CHAIRMAN GETZ: I understand. 18 19 (Chairman and Commissioners conferring.) 20 CHAIRMAN GETZ: I will say at this 21 point, Mr. Damon, if -- in some respects, I think it's a tactical or strategical -- "strategical" -- strategic call 22 23 for Staff to make at this point, whether it's comfortable 24 proceeding as was agreed during the recess, or if you want {DG 08-009} [Day II] {01-29-09}

1	to make a motion for some expansion of the procedural
2	schedule at this point. And, so, I think that's really a
3	Staff call to make, based on the evidence and the
4	discussions we've had this morning. And, I guess we would
5	be prepared to move ahead in either direction, depending
6	on the arguments that the parties are going to make.
7	But I think that's I don't want Staff
8	to be assuming a direction based on, from the Commission,
9	based on the comments made today, that we want to "get
10	this done". Like I said before, we want a full record.
11	And, so, it's I think, if you need a few minutes to
12	talk with Staff about whether to proceed as agreed during
13	the recess or to make a motion for some kind of change to
14	the procedural schedule, then I'll give you a few minutes
15	to discuss that.
16	MR. DAMON: Okay. Yes. Thank you.
17	We'll get back to you momentarily.
18	CHAIRMAN GETZ: Okay. Well, let's take
19	a short recess.
20	(Whereupon a recess was taken at 11:05
21	a.m. and the hearing reconvened at 11:36
22	a.m.)
23	CHAIRMAN GETZ: Okay. We're back on the
24	record. And, who has something to report?
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[WITNESS: Chattopadhyay] MR. DAMON: Staff does. 1 2 CHAIRMAN GETZ: Mr. Damon. 3 MR. DAMON: What Staff is going to 4 propose to do is to have Mr. -- Dr. Chattopadhyay talk 5 about his views of turmoil and volatility. And, then, -б CHAIRMAN GETZ: You're talking about 7 turmoil in the market? 8 (Laughter.) MR. DAMON: Turmoil in the market, yes. 9 And, then, briefly give an update on the -- an update on 10 11 the average yield on utility bonds and what the most recent information on that is. We will seek to introduce 12 13 the exhibits that, and I understand that there will 14 objections and so on, but let's try to get through this thing as best as we can. And, then, as I understand it, 15 the Company would like the right, at the end of the 16 presentation, to reserve its rights to propose whether or 17 not they need additional procedural relief, such as 18 19 discovery or the opportunity to respond in writing and things like that. 20 21 MR. CAMERINO: Maybe I can describe our position. We want to move forward with this process and 22 23 get it concluded as expeditiously as possible. And, so,

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rather than changing the procedural schedule at this

24

point, we'd rather hear whatever the Staff thinks they 1 2 need to present. And, we'll do our best to cross-examine 3 the witness, and, at the conclusion of that, make a 4 request based on where we are, as to whether we think we 5 need more time or not. There's no point in prejudging 6 that. And, as I said, our predisposition is to try to get 7 this done. We do have -- And, so, while we, 8 frankly, are very disappointed we're in this position, 9 given that the Commission does have rules governing it, 10 11 that's I think how we'd like to proceed. We do have 12 specific concerns about the materials, the written 13 materials, the graphs and the like that the Staff is going 14 to be seeking to introduce and the testimony related to that, because that's brand new information and analysis 15 that wasn't provided to us previously. The Exhibit 51 16 that was referenced was given to us yesterday. I'm 17 assuming these graphs weren't generated this morning, and 18 19 could have been provided to us, at least give us, you know, overnight to look at them. And, so, any testimony 20 21 related to these --CHAIRMAN GETZ: Well, and these --22 23 MR. CAMERINO: They haven't been marked yet, but Mr. Damon indicated they will be. We object to 24

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1 specifically, because we need more time to analyze these. 2 And, honestly, we really don't want to be in a position of 3 having to request more time. We just think there needs to 4 be an end to the procedure here. We know the Commission 5 wants a full record, but I think the rules provide for 6 this, and I think we're going beyond that. 7 CHAIRMAN GETZ: And, these exhibits are underlying the oral response that Dr. Chattopadhyay is --8 9 MR. DAMON: As I understand it, they give the basis for his views on volatility. 10 11 CHAIRMAN GETZ: And, these are generated 12 by him or are they from some other source? 13 MR. DAMON: Two of them are based on SNL 14 data that the Staff has, apparently, Mr. Moul does not have access to that, as I understand it. The other two 15 represent a chart, which is based on a volatility measure 16 that he has testified to in the past in a Public Service 17 Company of New Hampshire case. 18 19 MR. CAMERINO: I wasn't in that docket, by the way, so I don't even know what that analysis was, 20 21 but --CHAIRMAN GETZ: Okay. Well, let's hear 22 23 the oral testimony. And, then, I guess we'll deal with the proposed exhibits one-by-one when we get to them. 24 {DG 08-009} [Day II] {01-29-09}

[WITNESS:	Chattopadhyay]
IMTINE22.	

Does anybody else want to address these issues? 1 2 (No verbal response) CHAIRMAN GETZ: Okay. Mr. Damon, please 3 4 proceed. 5 MR. DAMON: Thank you. б BY MR. DAMON: 7 Dr. Chattopadhyay, you have reviewed Mr. Moul's ο. 8 rebuttal testimony regarding the question or the impact 9 of turmoil in the financial markets and, in particular, the volatility, since he's addressed that issue as 10 well? Okay. Anyway, --11 12 Α. Can you repeat that? Q. You have reviewed Mr. Moul's rebuttal testimony about 13 14 market -- turmoil in the financial markets and 15 volatility, correct? That is correct. 16 Α. Okay. And, do you have any response to the -- or 17 Ο. 18 anything to say regarding the limitations on that data, 19 as far as it goes toward helping establish a reasonable rate of return? 20 21 Α. Yes, I do. The volatility index that Mr. Moul reports in his rebuttal testimony is this index VIX, which is 22 23 based on the S&P prices, S&P 500 prices. And, it represents what's happening overall in the market. But 24 {DG 08-009} [Day II] {01-29-09}

1		what we are really talking about here is the cost of
2		equity associated with the gas utilities. And, in
3		specific, the way we approach it, it's about the proxy
4		groups that are being discussed. And, so, even though
5		the market volatility may have been higher, the real
6		issue here is once the volatility associated with the
7		proxy group that we are looking at. And, when I asked
8		Mr. Moul about, you know, whether it's possible to give
9		me some measure of volatility associated with the
10		proxies, he said that, you know, there is no
11		publication on that particular aspect. So,
12	Q.	Okay. Let me stop you right there
13	Α.	Yes.
14	Q.	and I'll keep asking questions.
15	Α.	Yes.
16	Q.	Before I move on and ask you to give your views about
17		your own views about the significance of his
18		testimony, could I ask you a question about the extent
19		to which the DCF calculations already take into account
20		the volatility in the markets?
21	Α.	Yes. It is my belief that DCF, by being
22		forward-looking, and the very fact that it reflects
23		it uses the information on prices, which are current,
24		the investors, their expectations, their view about
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1		volatility is already captured in the way the prices
2		have behaved, as well as their expectations about
3		earnings growth, book value growth, or dividends
4		growth. So, in that sense, the DCF method is robust
5		enough to already deal with whatever volatility "really
6		is", in terms of how investors view it for that
7		specific group of companies. And, therefore, in some
8		sense, this discussion about there being increase in
9		the market volatility, somehow that has to be reflected
10		in my DCF estimates additionally, as to what I've
11		already gotten, is not correct, because the DCF itself
12		has already included the investors' expectations about
13		how volatility, you know, affects them.
14	Q.	Okay. Now, as I understood Mr. Moul's testimony
15		yesterday, his updated estimates of return on equity
16		reflect turmoil in the financial markets and
17		volatility. And, I would ask you to give your views on
18		that matter.
19	Α.	Like I said, Mr. Moul did not really provide any
20		volatility estimates for the gas proxies. And, what I
21		have attempted to do is, to get a balanced view of how
22		the market compares with the gas proxy groups, I
23		created a measure of volatility, which is essentially
24		the standard deviation, which is a reasonable measure
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1	of volatility, standard deviation of the annualized
2	growth rates in the stock price index, say, for a
3	specific month, and really looking at what has been the
4	annualized growth rates over the previous 12 months.
5	And, then, I've measured what the standard deviation is
б	around that. So, that gives you a measure of how
7	prices have behaved over time. So, that's how I
8	measured it. And, I use that approach to get the
9	estimate for both the S&P 500 group, as well as the gas
10	proxies, mine, as well as Mr. Moul's.
11	MR. CAMERINO: And, at this point, I
12	just want to preempt what I think is going to come next.
13	I believe that's the introduction for the actual analysis
14	that Dr. Chattopadhyay just described, and that's what we
15	object to. Is he's describing some analysis involving
16	taking standard deviation of annualized growth rates over
17	a prior period. I'm a lawyer, I don't know what that
18	means, unless I can spend a lot of time analyzing that,
19	talking to my expert, conducting discovery. And, it's one
20	thing to give a response to what Mr. Moul said, it's
21	another thing to provide a brand-new analysis.
22	And, I think this is where, even if
23	there were another phase of this proceeding, this is where
24	the Commission has to cut it off, and say "We had
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1	rebuttal. We've now had response to the rebuttal. If we
2	put new information in, then the Company goes yet another
3	round." I think that's the distinction. The Commission's
4	rules anticipate that, by providing that the Company goes
5	last. The procedural schedule anticipated that by
6	providing rebuttal from the Company. It is not a news
7	flash that the Company's testimony contains something that
8	the Staff didn't agree with. The Staff I'm sure knew that
9	would happen when we set up the schedule.
10	So, I think what we'd like to do is
11	limit this testimony by not allowing new mathematical
12	analyses to come in at all, even if there were a change in
13	the schedule subsequently.
14	CHAIRMAN GETZ: Mr. Damon.
15	MR. DAMON: Well, for purposes of
16	completing the record and giving the Commission the
17	Staff's best attempt to put Mr. Moul's testimony in the
18	proper context, the Staff thinks that these two documents
19	are important. And, so, we do seek to introduce it, at
20	least have it marked for identification for the record and
21	treat it that way.
22	CHAIRMAN GETZ: Well, I think, to make a
23	judgment, I'm going to need to see the documents.
24	(Atty. Damon distributing documents to
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the Chairman and Commissioners.). 1 2 CHAIRMAN GETZ: Okay. Let's trace this 3 back. So, this is responding to what specifically in 4 Mr. Moul's rebuttal testimony? 5 MR. DAMON: Yes. б CHAIRMAN GETZ: What page? What line? 7 MR. CAMERINO: I can probably explain. Dr. -- Mr. Moul had some testimony regarding what he 8 9 referred to as the "VIX Index" regarding volatility. That's what it relates to. My understanding is this 10 document was available before today. 11 (Chairman and Commissioners conferring.) 12 CHAIRMAN GETZ: Mr. Damon, what other 13 14 exhibits are you going to try to --MR. DAMON: Yes. 15 CHAIRMAN GETZ: -- propose today? Let 16 17 me see --MR. DAMON: Yes, there's another graph 18 19 or two graphs, one for Dr. Chattopadhyay's proxy and another for Mr. Moul's proxy. And, they also are on the 20 21 point of volatility. 22 (Atty. Damon distributing documents to the Chairman and Commissioners.) 23 CHAIRMAN GETZ: Let me say this, 24 {DG 08-009} [Day II] {01-29-09}

Mr. Damon. My view is that this is unfairly late in the 1 2 process to be introducing these kinds of exhibits. Т 3 mean, it's one thing for the witness to be providing oral 4 response to prefiled rebuttal at this point. And, I mean, 5 typically, I guess I conceive of the procedural process as 6 a narrowing and a narrowing of the issues. And, it looks 7 like we're expanding some of the issues and introducing 8 new testimony that the Company hasn't had a chance to review at this point. So, I would not allow the 9 introduction of these exhibits at this time. 10 11 If there's a way that the witness can 12 speak orally to why he disagrees with the rebuttal 13 testimony, insofar as it goes to volatility, that's one 14 thing. But I think it's too late in the procedural schedule to be introducing evidence of this nature that is 15 just not going to be feasible for the Company to conduct 16 an analysis and prepare cross-examination and an extra 17 round of rebuttal testimony. So, I'm going to disallow 18 19 these four documents. 20 MR. DAMON: I think it is important for 21 the Commission to have some further information on the question of volatility. I think it's a central issue in 22 23 this docket. So, I would move that the procedural 24 schedule be amended so that Mr. Chattopadhyay would be {DG 08-009} [Day II] {01-29-09}

allowed to file brief surrebuttal testimony on the 1 2 question of volatility that would include his opinions 3 about that and the basis for his opinions. Giving the 4 Company the time that it needs for discovery, and then 5 reconvene the hearing to complete the discussion on 6 volatility. 7 In addition, there is one other small matter, and I could certainly cover that today, regarding 8 the -- updating the situation regarding the average yield 9 on utility bonds. I can have Mr. Chattopadhyay do that 10 11 right now. CHAIRMAN GETZ: Well, I assume that's 12 13 purely an objective factual update. Is there any 14 objection to that? MR. CAMERINO: My understanding was that 15 the witness was going to provide the latest number, 16 reported number, and we had indicated we did not object to 17 18 that. 19 CHAIRMAN GETZ: Well, let's get that on 20 the record. 21 BY MR. DAMON: Okay. Mr. Moul, in his rebuttal testimony, at Page 11, 22 Ο. 23 Lines 1 and 2, discusses the yield on A rated public utility bonds. And, have you updated the data 24 {DG 08-009} [Day II] {01-29-09}

1		regarding the average yield on utility 25 to 30 year A
2		rated bonds?
3	A.	I should clarify really what I'm doing here is, based
4		on what the data I have access to, I have used, I've
5		looked at what the Value Line Investment Survey
6		reports, the yields were on the utility $25/30$ year A
7		rated bonds. And, these are weekly publications. So,
8		essentially, I looked at the previous five weeks what
9		those numbers were, and I averaged them. The average
10		turns out to be 5.95 percent currently.
11	Q.	And, to the extent the spread associated with your
12		proxy's cost of equity, relative to such a bond, is
13		pertinent or useful, what is the spread at your updated
14		recommended rate of return estimate point estimate
15		of 9.33 percent?
16	Α.	Yes. Again, using the average yield on the utility
17		25/30 year bonds, my point estimate being 9.33 percent,
18		the spread happens to be around 338 basis points,
19		spread relative to the yield I'm talking about here.
20		MR. CAMERINO: We didn't hear what the
21	nu	mber of basis points was.
22		WITNESS CHATTOPADHYAY: 338 basis
23	pc	ints, relative to the average yield on the utility 25/30
24	ye	ar rated A bonds.
		$\int DC 08_000 \int \int Dev TT \int 01_29_00 $

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MR. CAMERINO: Suppose I could have done 1 2 the math. Now you know why I'm queazy about standard 3 deviations. 4 MR. DAMON: The Staff would, at this 5 time, renew its motion to amend the procedural schedule. б CHAIRMAN GETZ: Well, I assume you 7 object, but let me ask this question. Is it fair for me to conclude that the real substance of the issue here is 8 how to get additional argument into the record about 9 volatility and how that should be considered? Is that 10 fair? Does everybody agree that that's what the crux of 11 the issue is at this point? 12 MR. CAMERINO: That sounds correct. 13 14 MR. DAMON: Yes. CHAIRMAN GETZ: Is there a way that we 15 can do this in writing from the parties, without an 16 argument by Staff and a response by the Company, without 17 the need for further hearings on the matter? 18 19 MR. CAMERINO: I'm not sure how to answer that. I would like to take one step back though, 20 21 and just say, at this point, first of all, as I indicated, our goal is to get done today. So, I'm very mindful of 22 23 the time we're consuming even on discussing this. That's one of the reasons that we decided to just let the Staff 24 {DG 08-009} [Day II] {01-29-09}

present their testimony, and we'll deal with it when we 1 2 see where we are at the end of our cross. We'll make a 3 decision based on what we've been able to address. I 4 thought the Bench had ruled on these physical exhibits. 5 And, other than that, the Staff would proceed and try to б summarize their points. And, I don't think it's -- I 7 mean, unless Mr. Damon is planning to appeal the Bench's ruling on denial of these exhibits, I think that ruling 8 was made. And, when Mr. -- Dr. Chattopadhyay is done with 9 his testimony, we'll see whether we need an extension of 10 11 the schedule. But we are not objecting to his -- we're allowing him to proceed with his testimony. So, there is 12 no need to be discussing a change in the schedule yet. 13 14 MR. DAMON: Well, I can try to do this, I can try to keep going with this line of questioning, I'm 15 happy to do that. And, I think we'll hear additional 16 objections and so on. But I'll do my best. 17 CHAIRMAN GETZ: Well, is that --18 19 MR. CAMERINO: I thought that's where we were, and we will make our assessment at the end as to 20 21 whether we need the additional time or not. 22 CHAIRMAN GETZ: Okay. All right, 23 Mr. Damon. 24 MR. DAMON: Okay. {DG 08-009} [Day II] {01-29-09}

1 BY MR. DAMON:

2 Ο. Dr. Chattopadhyay, what conclusions do you draw about 3 the relative volatility of the market versus the 4 proxies that you and Mr. Moul have used? 5 Α. The conclusion that I draw is that the volatility 6 associated with the gas proxies is not as high as the 7 volatility associated with the market. And, I also 8 corroborate that by looking at what has happened to the Value Line beta. The Value Line beta has, for example, 9 from the time Mr. Moul had filed the testimony 10 initially, the number was 0.86; it has gone down to 11 0.70 for his proxy group. Likewise, I have initially, 12 in the hearings today, discussed, as opposed to what I 13 had in October for the beta for my proxy group, it was 14 0.81, and has gone down to 0.69 on average now. So, 15 the beta, which are widely used as a measure of, you 16 know, volatility, that there has been a shift in that, 17 too. So, it tells you that utility stocks are, of the 18 19 gas utilities that I've looked at here, those stocks are more attractive in terms of being less risky now. 20 21 The other thing is that, if you look at the Value Line reports that even -- the Value Line 22 23 reports also provide something called the "Price Stability Index". And, the Price Stability Index still 24 {DG 08-009} [Day II] {01-29-09}

stays at the highest level possible, that is 100, for 1 2 all of these stocks, the ones which are in the proxy 3 groups. 4 So, it is my opinion that that 5 volatility associated with the proxy companies have 6 actually been lower lately. And, what really matters 7 is what's happening right now, and that's what I'm reporting here. It remains, though, that I still 8 believe that the DCF construct is able to handle how 9 investors view volatility. So, it's already, when I go 10 for the DCF estimates, they kind of reflect that 11 reality. And, looking at the changes in the prices, 12 they will kind of capture that. So, in my view, the 13 14 cost of equity estimate that I derive is consistent with the way the investors are looking at volatility 15 and other factors. 16 MR. DAMON: No further questions. 17 CHAIRMAN GETZ: Ms. Hatfield? 18 19 MS. HATFIELD: Thank you, Mr. Chairman. Good afternoon, Dr. Chattopadhyay. 20 21 CROSS-EXAMINATION BY MS. HATFIELD: 22 23 Yesterday Mr. Moul referred to certain touch points, or Q. as he called them in his testimony "rate-setting 24 {DG 08-009} [Day II] {01-29-09}

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[WITNESS: Chattopadhyay]
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1		principles" that he used. Do you remember those from
2		his testimony?
3	Α.	I'd appreciate it if you can list them.
4	Q.	Sure, I'll do that. And, what I want to ask you is, as
5		I go through each one, I'd like to know if you believe
б		that the ROE that you're recommending in this case was
7		developed through a process that took those principles
8		into account.
9	A.	That took I'm sorry, can you repeat the last part
10		again?
11	Q.	Sure. Whether you took these principles into account
12		when you developed your ROE? And, I am actually
13		referring to what is Exhibit 9, which is Mr. Moul's
14		direct testimony. And, I'm looking at Attachment
15		PRM-2. And, I'm look at Page 1 of 2, which has a, in
16		the original filing, had a Bates page number of "48".
17	A.	Can I If you just give me a few seconds.
18	Q.	Sure.
19	A.	Can you repeat? PRM-2?
20	Q.	Yes. And, it's the first page of PRM-2. And, on the
21		bottom right-hand corner, in the original filing, the
22		page number is 48.
23	A.	And, which page are we talking about, 48 or 49?
24	Q.	Forty-eight.
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1 A. Okay. Yes.

2	Q.	In that first paragraph, in the second sentence, on
3		Line 4, Mr. Moul says "a regulatory agency must
4		carefully consider the public's interest in reasonably
5		priced, as well as safe and reliable, service." Did
6		you consider that in developing your ROE?

7 A. Yes, I did.

The next sentence states that "The level of rates must 8 Q. 9 also provide the public utility and its investors with an opportunity to earn a rate of return for the public 10 11 utility and its investors that is commensurate with the risk to which the invested capital is exposed so that 12 13 the public utility has access to the capital required 14 to meet its service responsibilities to its customers." Did you consider that type of principle in developing 15 your ROE? 16

17 In the sense that I've used the DCF construct, and I Α. have really tried to get a sense of what the 18 19 opportunity cost of equity is. But, in doing so, I 20 have also been careful about being sort of 21 conservative, I have actually did what you just described. 22 23 And, then, the last sentence that begins on Line 8, and Q. goes onto Lines 9 and 10, states that "Without an 24

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1		opportunity to earn a fair rate of return, a public
2		utility will be unable to attract sufficient capital
3		required to meet its responsibilities over time." Did
4		you take that issue into account when you developed
5		your ROE recommendation?
6	Α.	Like I just said, I have been very careful in making
7		sure that the estimate that I derive is conservative.
8		And, it's definitely reasonably higher than the
9		opportunity cost of equity, in my opinion. And, so, in
10		doing so, I've actually made sure that the public
11		utility will be able to attract sufficient capital,
12		based on my ROE.
13	Q.	Yesterday Mr. Moul also testified about the DCF model.
14		He referred to this in his rebuttal as well. And, he
15		discusses limitations that he believes that the DCF
16		model has. Do you recall that?
17	Α.	Yes, he did.
18	Q.	He also, in his oral testimony yesterday, did
19		acknowledge that there are problems with the other
20		models as well, including the other models that he
21		used. Do you recall that?
22	A.	Yes, I did.
23	Q.	Do you recall what or do you have an opinion on what
24		some of the problems with the other models are that he
		$\{DG \ 08-009\} \ [Day \ II] \ \{01-29-09\}$

1		uses?
2	Α.	In my testimony I have consistently pointed out that
3		the cost of equity estimate is essentially a
4		forward-looking concept. And, in that sense, the DCF,
5		in my opinion, does a better job than the other
6		approaches, like the CAPM or the RPM. Essentially
7		because, while the RPM tends to use historical data,
8		even though you might actually have some
9		forward-looking twists to it, that is how Mr. Moul had
10		done it. And, in the sense that, for example, the
11		betas that we looked at for the CAPM, they are really
12		based on historical data. Some of the estimates, like
13		CAPM and RPM, I have less confidence in.
14		And, the other issue with these
15		approaches are that, as far as the DCF is concerned,
16		it's based more on the Company data. But, for the
17		other approaches, it relies mostly on what's happening
18		in the market, but it doesn't really go into the kind
19		of details that DCF does, as far as looking into
20		companies specifically is concerned.
21	Q.	And, I'd like to show you what's been marked as
22		"Exhibit 49". This was an exhibit that Staff entered,
23		that is Mr. Moul's response to OCA 1-65.
24		(Atty. Hatfield handing document to the
		{DG 08-009} [Day II] {01-29-09}

1 witness.) 2 BY MS. HATFIELD: 3 Now, as you may recall from the testimony yesterday, Ο. 4 this response provides Mr. Moul's, as he describes, 5 "restrictive assumptions" included in some of the other 6 models that he used in developing his ROE. Are there 7 any of these that you would agree with, in addition to 8 what you just testified to? To the best of my ability, I agree with the lists here, 9 Α. as I look at it. 10 Thank you. Both yesterday, during Mr. Moul's 11 Q. testimony, and also in his rebuttal, there's a 12 discussion about the "flight to quality". Do you 13 14 recall that? Yes, I do. 15 Α. And, I believe that largely centered on the idea that 16 Q. there has been a flight to Treasuries. Do you know if 17 there has been a similar movement toward lower risk 18 19 stocks generally in the current market? Again, it is my opinion, based on what I understand how 20 Α. 21 volatility has behaved, when you compare the market with the utility stocks, the risks are, in this 22 23 environment, significantly lower for the utility companies. And, that would suggest that there would be 24 {DG 08-009} [Day II] {01-29-09}

1	some that these, the utility stocks, would also be,
2	in some ways, safe harbors.
3	Q. Yesterday Mr. Moul also testified that, I think I got
4	this right, that he thinks that, "in a bad economy,
5	that utilities are higher risk than private firms,
6	because utilities can't cut back on capital
7	expenditures during bad times, as a private firm could
8	do, because a utility has a requirement to continue to
9	provide safe and adequate service, which means
10	continuing to invest." Do you recall that testimony?
11	MR. CAMERINO: Just an objection to the
12	form of the question. I think that mischaracterizes what
13	Mr. Moul has said. If Ms. Hatfield just wants to refer to
14	generally that subject matter, and there's a question
15	related to it, that's fine. But that is not my
16	recollection of what Mr. Moul said.
17	MS. HATFIELD: I'll attempt to rephrase
18	the question.
19	BY MS. HATFIELD:
20	Q. I believe that Mr. Moul yesterday testified that
21	"utilities, unlike private firms, aren't able to cut
22	back on capital expenditures during bad economic
23	times." Do you recall that testimony?
24	A. I do.

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1	Q.	And, would you agree that a key difference between
2		regulated utilities and private firms is that utilities
3		have a largely captive customer base from which they
4		can recover costs, including capital expenditures and
5		other costs of providing utility service, even when the
6		economy is down?
7	A.	Generally, it may be true. But, if you're talking
8		about specific businesses, I haven't looked at them
9		individually to confirm what you just said.
10	Q.	Would you agree that public utilities, regulated public
11		utilities, have a customer base that requires service
12		from the utility, and is therefore a more reliable
13		source of revenue than an unregulated company in the
14		marketplace?
15	A.	Again, generally, that is true. But it is possible
16		that there might be unregulated companies who have a
17		sufficiently captive customer base, based on what
18		product you're talking about, that what you just said
19		may not be the case.
20		MS. HATFIELD: Ms. Hollenberg has a few
21	qı	uestions for the witness.
22		MS. HOLLENBERG: If I may approach the
23	wi	itness? Thanks. Good afternoon.
24		WITNESS CHATTOPADHYAY: Good afternoon.
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BY MS. HOLLENBERG: 1 2 Ο. I'd like to just have you look at what was marked 3 yesterday as "Exhibit 44" and "46" please. And, I just 4 have a couple of questions for you about those. 5 Α. Okay. б Q. Exhibit 44 is Dr. Moul's response to OCA 1-62. And, 7 Exhibit 46 is his response to OCA 2-23. Do you see that? 8 Yes, I do. 9 Α. And, starting first with OCA [Exhibit?] 46, Mr. Moul 10 ο. indicates in response to the question, which actually 11 refers to OCA 1-62, this question is essentially asking 12 Mr. Moul to identify the percentages for the Company of 13 14 state regulated revenues, state regulated income, and state regulated assets. Do you agree with that? 15 That is correct. 16 Α. And, his response is that he "understands that these 17 Ο. percentages for ENGI are 100 percent"? 18 19 That is correct. Α. So, in other words, the Company has 100 percent state 20 Ο. 21 regulated revenues, income, and assets? That is true. 22 Α. 23 And, you understand that "ENGI", as it's referred to in Q. this question, is now "National Grid New Hampshire"? 24 {DG 08-009} [Day II] {01-29-09}

1 A. Yes, I do.

2	Q.	And, turning to Exhibit 45 44, this question asks
3		about the gas group that Mr. Moul used in his
4		recommendation. And, at the bottom of the page, his
5		response to subsection (a), which relates to the
6		percentage of "State Regulated Revenues", in the second
7		to last column, it indicates, for each of his companies
8		in his proxy group, the percentage of state regulated
9		revenues, correct?
10	Α.	That is correct.
11	Q.	And, would you agree that the percent of state
12		regulated revenues for the first three are below
13		60 percent?
14	A.	That is correct.
15	Q.	And, for the last two, they're below 63 percent?
16	A.	That is correct.
17	Q.	And, then, at the bottom it reflects that the average
18		of the state regulated revenues for his proxy group are
19		is 66.26 percent?
20	A.	Correct.
21	Q.	If you could just flip over to the other side of this
22		exhibit, or on Page 2 of it, for the response to
23		Subsection (b). The second to last column in the chart
24		at the top of the page indicates the percentage of
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1		"State Regulated Income" for each of the companies in
2		his proxy group.
3	A.	That's right.
4	Q.	And, you would agree that the first three are below
5		67 percent?
6	A.	That is correct.
7	Q.	And, the second to last one is below 56 percent?
8	A.	That is correct.
9	Q.	And, in the last section, his response to (c) oh,
10		excuse me, and the average is 69.47 percent, for state
11		regulated income for his proxy group, correct?
12	A.	That is correct.
13	Q.	And, then, if you go to the bottom of that page,
14		section subsection (c), the average for his
15		companies of state regulated assets is below
16		86 percent?
17	A.	That is correct.
18		MS. HOLLENBERG: Thank you. One moment
19	pl	ease.
20		(Atty. Hollenberg conferring with Atty.
21		Hatfield.)
22	BY M	IS. HOLLENBERG:
23	Q.	Would you Would you say that a company with
24		100 percent of revenues, income, and assets under state
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1		regulation is less risky than one with lesser amounts
2		of assets, income, and revenue under state regulation?
3	A.	Generally true.
4	Q.	Thank you. If you could look at what you filed this
5		morning, Attachment XII, do you have that in front of
6		you? It's Exhibit 51. You're revised attachments to
7		your testimony.
8	A.	Just a second. Talking about these here?
9	Q.	Yes, please. You have a chart on that page entitled
10		"Proxy Beta"?
11	A.	That is correct, yes.
12	Q.	And, if you could just you have here that the proxy
13		average is "0.69"?
14	Α.	Yes.
15	Q.	And, that the current median beta for Value Line
16		companies is "1.11". Could you just indicate what the
17		significance is of the difference between those two
18		numbers please?
19	Α.	As far as the Value Line companies are concerned, that
20		is the whole set of companies, you know, whole set of
21		stock prices that Value Line reports. What the number
22		"1.11" is telling is that, as compared to the market
23		risk, which is really at one, the risk associated with
24		this group of Value Line companies is higher than that
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1 standard.

2 Ο. Thank you. Turning to your Attachment XI, XI, which is 3 the page before that. And, you have on there your --4 the top table is entitled "DCF ROE Estimates" and the 5 bottom table is entitled "Market to Book Ratio ROE 6 Estimate". And, below each of those tables is a 7 sentence in bold, which says "A shaded cell identifies 8 an outlier (see the testimony for the criteria)". 9 Α. Yes. On my copy, I don't have any shaded cells. And, I 10 Ο. 11 believe there are a couple of at least two, or three 12 maybe, shaded cells in both, two in the top and one in the bottom. And, I wondered if you could just indicate 13 14 for the record which cells are outliers please? Sure. I had actually shaded them. I'm not sure why it 15 Α. didn't show up here. But --16 17 Ο. It happens. For example, if you go down the second column, which is 18 Α. 19 about the "Average of EPS, DPS, and BPS growth rates", the outlier is Piedmont Natural Gas, which is the 20 21 number is "11.11 percent". And, that is higher than the upper bound, which is average plus two times 22 23 standard deviation. 24 Q. Yes. {DG 08-009} [Day II] {01-29-09}

1	A.	And, that's at "10.95". And, with the "br and sv"
2		approach, the outlier is, I hope this is how it's
3		pronounced, "Laclede Group". And, that's the
4		"12.42 percent". And, for the last method, again,
5		"Piedmont Natural Gas" is the outlier, "17.29 percent".
б	Q.	Thank you. And, for the bottom table, do you agree
7		that there is one outlier in the column entitled, the
8		fourth column over, entitled "Cost of equity:
9		Market/Book method", it's the second item down?
10	Α.	Yes. It is Laclede Group.
11	Q.	Thank you. I have just one last question. I wondered
12		if you yesterday we heard testimony I believe from
13		Mr. Moul about, and it may have been also in his
14		written testimony, criticizing you for using or relying
15		heavily upon the Value Line data, because of the fact
16		that that's data that is based on the opinion of one
17		analyst, as opposed to a group of analysts. And, I
18		wondered if you had a response to that criticism?
19	Α.	To the best of my knowledge, even with the Consensus
20		estimates, I think there are analysts associated with
21		the companies and they come up with these numbers. So,
22		it is quite natural that the estimates that we are
23		getting, they're associated with, you know, one person,
24		or if that is what you were asking me, okay? And, what
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1	I have done in my testimony, I've tried to reflect the
2	expectations of different estimates, estimates from
3	different sources. So, I've used Value Line and I've
4	used Consensus, I've used Zacks. And, so, in that
5	sense, I'm really trying to be as broad in getting an
б	estimate as possible for all of the growth components
7	that I have calculated.
8	MS. HOLLENBERG: If I could just have a
9	moment please? Thank you.
10	(Atty. Hollenberg conferring with OCA
11	Staff.)
12	MS. HOLLENBERG: Thank you for that
13	time. The OCA does not have any further questions for
14	this witness.
15	CHAIRMAN GETZ: Thank you. Mr. Linder?
16	MR. LINDER: We have no questions.
17	Thank you.
18	CHAIRMAN GETZ: I'm assuming, Mr.
19	Camerino, you have a significant amount of cross?
20	MR. CAMERINO: Yes.
21	CHAIRMAN GETZ: I guess for well,
22	let's go off the record for a second.
23	(Whereupon a brief off-the-record
24	discussion ensued.)
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1 CHAIRMAN GETZ: All right. Let's break for lunch and resume at around 1:30, and then we'll see if 2 we pick right up with Dr. Chattopadhyay or Mr. 3 4 Stavropoulos. 5 MR. CAMERINO: Thank you. б (Whereupon a lunch recess was taken at 7 12:34 p.m. and the hearing reconvened at 1:44 p.m.) 8 9 CHAIRMAN GETZ: Okay. Good afternoon. We're back on the record. And, Mr. Camerino, how would 10 you propose to proceed? 11 MR. CAMERINO: Well, I should have 12 13 listened to the Chairman, of course. I found out you had some inside information. And, we would like to proceed 14 with Mr. Stavropoulos. 15 CHAIRMAN GETZ: Well, let's -- any 16 objection to that? 17 18 MR. DAMON: No. 19 CHAIRMAN GETZ: Let's proceed then. MR. CAMERINO: Thank you. The Company 20 21 calls Nickolas Stavropoulos. 22 (Whereupon Nickolas Stavropoulos was 23 duly sworn and cautioned by the Court 24 Reporter.) {DG 08-009} [Day II] {01-29-09}

1	NICKOLAS STAVROPOULOS, SWORN
2	DIRECT EXAMINATION
3	BY MR. CAMERINO:
4	Q. Mr. Stavropoulos, would you state your name and
5	business address for the record please.
6	A. It's Nick Stavropoulos, 52 Second Avenue, Waltham,
7	Massachusetts 02451.
8	Q. And, what is your position with National Grid, USA and
9	what are your responsibilities in that regard?
10	A. I'm Executive Vice President for our U.S. Gas
11	Operations, and sort of think of me as the Chief
12	Operating Officer for our U.S. gas businesses.
13	Q. And, I take it your educational and professional
14	experience are set forth in the prefiled testimony that
15	was submitted in this case?
16	A. They are.
17	MR. CAMERINO: Okay. Let me just note
18	for the record that we have submitted previously Exhibit
19	6, which is Mr. Stavropoulos's direct testimony dated
20	February 25, 2008, and Exhibit 40, which is
21	Mr. Stavropoulos's testimony dated December 15, 2008 in
22	rebuttal. I believe, just to clarify the record, that in
23	that filing that is identified as "Exhibit 40", there's
24	also an affidavit from Mr. O'Neill. That is not related
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1	to the issues of the litigation here, but that completes
2	the record on some other matters that have since been
3	settled. If you don't have that in your copy, that's
4	fine, because that's not going to be referred to in his
5	testimony.
б	I also would just note for the record
7	that the return on equity testimony from Mr. Stavropoulos
8	actually begins on Page at the bottom of Page 5, and
9	goes onto Page 6 of his rebuttal testimony. So, there's
10	no need to refer to Exhibit 6. All of that is contained
11	in Exhibit 40.
12	BY MR. CAMERINO:
13	Q. Mr. Stavropoulos, with that in mind, was this testimony
14	prepared by you or under your direction?
15	A. Yes, sir, it was.
16	Q. And, is it true and accurate to the best of your
17	knowledge and belief?
18	A. It is.
19	Q. And, if I asked you these questions today, would your
20	answers be the same?
21	A. They would.
22	Q. Okay. Thank you. Let me just begin with one more
23	background question, in terms of your responsibilities.
24	During the course of your role as Executive Vice
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1		President, do you have occasion to interact with
2		investors in the gas utility business?
3	A.	I do.
4	Q.	And, are you familiar with the discussions that occur
5		and concerns that those investors have regarding the
6		gas utility companies?
7	A.	Yes, I'm generally familiar. They have a big impact on
8		my business, yes.
9	Q.	Okay. Thank you. What I would like to do is ask you
10		to summarize your return on equity testimony. And,
11		we'll begin with your discussion of why you believe
12		it's critical that the Commission set a reasonable
13		return on equity for National Grid New Hampshire?
14	A.	Certainly. Well, sort of the central theme of my
15		testimony here is is I believe that return on equity is
16		the signal that this Commission sends to the capital
17		markets regarding the ability of those markets to earn
18		a fair return on the investments that they make in
19		utility assets. So, it's important for National Grid
20		New Hampshire, because we continue to make significant
21		investments in the infrastructure. Since our last rate
22		case, I think we've doubled the size of our rate base
23		investment. We plan on spending north of \$51 million
24		in 2008 and 2009 alone. We've got about 170 miles of
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1	leak-prone pipe that needs to be replaced. At the
2	current rate, it's going to take us between 45 and 50
3	years to replace that pipe. And, that's a level of
4	capital spending that, in my experience, will not be
5	sustained. We're going to have to increase that rate
б	of capital spending significantly in the years ahead as
7	we move forward. So, the ability to attract reasonably
8	priced capital I think is in the best interest of the
9	State of New Hampshire and our customers here.
10	The second part of my testimony was to
11	give my comments on the Staff's original proposal of
12	9.01 percent. It's good to see that there was
13	agreement that that probably was inappropriate, and
14	then Staff has increased that to 9.33. I still believe
15	that that's not adequate, given the state of the
16	economy and the activity and signals that we're seeing
17	from the capital markets. We're seeing higher risk and
18	return expectations in those markets. I heard today
19	from a Staff witness that "utility stocks are safe
20	harbors", I think that was the quote this morning.
21	And, while I certainly agree that utility stocks are
22	lower risk investments than many of the investment
23	options that are available today, I find it hard how
24	anybody would think that there is not more risk in
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1 today's capital markets than there were before this 2 capital crisis began. One small piece of evidence there is, you know, not too long ago, before the 3 4 capital markets began to unwind, we were paying about 5 100 basis points above the equivalent 10 year 6 Treasuries to issue 10 year debt. We're paying 500 7 basis points today. It's hard for me to imagine, if a 8 debt investor is requiring four to five times the risk premium that they did before the turmoil in the 9 markets, that equity investors wouldn't similarly 10 expect a significant increase in the risk premium for 11 their investment of capital into any business. 12 Well, let me just stop you there. In your prefiled 13 Q. testimony you raised the concern that the Staff's 14 proposal at the time, the 9.01 percent, was only 145 15 basis points above the return that could be obtained on 16 an A-rated utility bond. Has the increase to 17 9.33 percent changed your view in that regard? 18 19 Well, certainly, directionally, is -- directionally, Α. it's going into the right direction. But, you know, 20 21 I'm thinking that a 400 basis point premium is more realistic. Morgan Stanley issued a report today 22 23 indicating that they're looking at a 400 basis point 24 risk premium for equity investors in all the companies, {DG 08-009} [Day II] {01-29-09}

1		all the distribution utility companies that they
2		follow.
3	Q.	Okay. And, Staff testified, both in prefiled
4		testimony, as well as today, regarding the higher
5		volatility in the equity markets. But that that
б		translated into a benefit somehow for utility stocks,
7		because of a flight to safety. Do you recall that
8		testimony?
9	Α.	I do, yes.
10	Q.	What's your response to that?
11	Α.	Well, I don't think that much has changed regarding the
12		perception of utility stocks, vis-a-vis all the other
13		opportunities for investments that investors have
14		always had available to them. You know, we would
15		agree, we try to manage our business in a low risk way.
16		We like to call ourselves a "very low risk business".
17		But, again, that's in a population of every possible
18		investment that investors can make. But, even with
19		that, we're looking at a much riskier overall set of
20		market expectations from investors today than we were
21		just a short time ago.
22	Q.	Finally, in your testimony you expressed a concern that
23		the Staff's recommendation really was out of synch with
24		what's really happening in the marketplace. I take it
		[DC 00 000] [Deve II] [01 00 00]

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1	that that remains your testimony even with the revised
2	recommendation?
3	A. Yes, it does. You know, a great example of that is
4	Rhode Island just approved a 10.5 percent return on
5	equity for my Rhode Island businesses. And, you may or
6	may not be aware, but the discourse among the
7	Commissioners when they decide, not only return on
8	equity, but all aspects of the case is done in a public
9	forum. So, even in the debate, there was no suggestion
10	from any of the Commissioners that the return on equity
11	should be below 9.95. That was the low water mark that
12	they even discussed. And, they ultimately concluded at
13	a 10.5 percent return on equity.
14	MR. CAMERINO: Thank you. That
15	concludes my direct examination.
16	CHAIRMAN GETZ: Okay. Mr. Linder?
17	MR. LINDER: I have no questions. Thank
18	you.
19	CHAIRMAN GETZ: Ms. Hatfield.
20	MS. HOLLENBERG: Thank you, Mr.
21	Chairman. I'll be doing the questioning. Good afternoon.
22	How are you today?
23	WITNESS STAVROPOULOS: I'm good. Thank
24	you. And you?
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1 MS. HOLLENBERG: I'm well. Thank you. 2 Welcome to New Hampshire. 3 WITNESS STAVROPOULOS: Thank you. It's 4 good to be back. 5 MS. HOLLENBERG: I just have a few б questions for you. 7 CROSS-EXAMINATION BY MS. HOLLENBERG: 8 Is it fair to characterize your direct testimony, which 9 Ο. has been identified as "Exhibit 6", as a summary of the 10 Company's positions at that time? 11 12 Α. That's correct. And, with regard to your rebuttal testimony, which has 13 Q. 14 been identified as "Exhibit 40", specifically Page 6, where the majority of your discussion about ROE is 15 located, that's where you respond to Staff's ROE 16 recommendation. Would you agree that you refer the 17 18 reader a couple of times on that page to Mr. Moul's 19 testimony? 20 Α. Yes. 21 ο. And, would you agree that your opinions about the return on equity in this case are primarily informed by 22 23 Mr. Moul's testimony? Certainly, the technical calculations, I certainly 24 Α.

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1		relied on our expert witness. And, I'm also sharing
2		with you, you know, some of my practical experience of
3		what I'm seeing in the markets today as well.
4	Q.	So, you would agree that you didn't conduct an
5		independent assessment of ROE?
6	Α.	No.
7	Q.	In terms of the technical calculations that your expert
8		testified to?
9	Α.	That is correct.
10	Q.	On Page 3 of your testimony, Exhibit 40, the rebuttal,
11		you reference, at Lines 5 and 6, a "significant
12		tightening of the credit market in recent months". Has
13		National Grid New Hampshire had any difficulty
14		obtaining credit in recent months?
15	Α.	I don't believe that we issued any debt with National
16		Grid New Hampshire.
17	Q.	Okay. And, so, your statement there is not based on
18		the experience of National Grid New Hampshire?
19	Α.	It would be based upon the availability and access to
20		the markets as a whole.
21	Q.	But no individual experience of New Hampshire's
22		National Grid?
23	Α.	Wouldn't expect New Hampshire to be any different.
24	Q.	At Line 6 to 7, you suggest that "the trouble in the
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1		market shows no sign of abating in a significant way".
2		You are not an economist, are you?
3	A.	Practicing, no.
4	Q.	And, you're not a financial analyst?
5	A.	Well, my background is in finance. I was a chief
6		financial officer of a publicly traded company for over
7		ten years. I am a degreed accountant. My Master's is
8		an MBA in Finance and Marketing. So, significant
9		experience in financial analysis, yes.
10	Q.	Okay. But not a licensed financial analyst?
11	A.	No.
12	Q.	And, on Page 5, at Lines 11 to 12, you state that
13		"investors require higher returns in order to invest in
14		a volatile market". Did you conduct an independent
15		analysis of the volatility of the market generally?
16	A.	I have not.
17	Q.	And, how about the volatility of the market for natural
18		gas distribution company stocks?
19	A.	I have not.
20	Q.	At Page 6, Line 17, you refer to "the return on an
21		A-rated utility bond", and I believe that issue came up
22		a little bit on your direct a moment ago. What was the
23		date of that return?
24	A.	My testimony was as of December 15th. And, I'd have to
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[WITNESS: Stavropoulos]
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1		check my workpapers. So, it would be sometime in that
2		time frame.
3	Q.	Thank you. Would you agree that your statement here
4		suggests that "the higher the return is on an A-rated
5		utility bond, the higher the return is that investors
6		require for the utility stocks?
7	Α.	I would agree.
8	Q.	So, the lower the return is on an A-rated utility bond,
9		the lower the return is on the utility's equity that is
10		expected of investors?
11	Α.	Potentially.
12	Q.	Potentially?
13	Α.	Uh-huh.
14	Q.	Could you explain your answer please.
15	Α.	Well, would you agree that
16	Q.	Actually, I'm going to stop you there, because I'm
17		actually the one that gets to do the questions in this
18		case. But, if you could just answer why it is that the
19		converse is not true to the statement you made in that
20		testimony?
21	A.	Well, I could think in a situation where equity
22		investors may demand a higher premium to adjust for the
23		risks in the market that might be different from what
24		bondholders may be requiring at the same point in time.
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1		It's theoretically possible.
2	Q.	So, is it also theoretically possible that the same is
3		true for what you say about "the higher the return on
4		A-rated bonds, the higher the return on utility stocks?
5	Α.	Yes. Yes.
6	Q.	So, it's not absolute that the higher the return on the
7		utility bonds, the higher the return on the utility
8		stocks?
9	Α.	Possibly.
10	Q.	"Yes" or "no" please.
11	Α.	Possibly.
12	Q.	On Page 5 of your testimony, Exhibit 40, at Lines 20 to
13		21, you refer to a "declining customer use and
14		increased focus on energy efficiency as risks that are
15		in the environment that the Company is operating in
16		now"?
17	Α.	What page again, I'm sorry?
18	Q.	I'm sorry. It's
19		CHAIRMAN GETZ: Page 6.
20	BY M	IS. HOLLENBERG:
21	Q.	Okay. I'm sorry. One moment please. Let me just make
22		sure I have the right page for you, the right exhibit.
23		Okay. It's actually the bottom, I'm sorry, the bottom
24		of Page 6.

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- 1 A. Okay. Thank you.
- 2 Q. Lines 20 to 21.
- 3 A. I have it. Thank you.

Q. So, there you reference as risks that the Company is
focused -- is facing "declining use by customers and
required" -- or, "increased focus on" -- I think you
say "significant increased focus on energy efficiency."
Do you see that?

- 9 A. I do.
- 10 Q. You would agree that the Company's energy efficiency11 programs are funded by its customers?
- 12 A. I would.

Q. And, that's through a per therm charge, which is
included in the Local Distribution Adjustment Charge?
A. Correct.

16 Q. And, do you also agree that the Company actively 17 participated in another docket in this -- at this Commission, DE 07-046, which was the Commission's 18 19 investigation into energy efficiency rate mechanisms? 20 We certainly participated in a proceeding. I will take Α. 21 it subject to check that you have the docket number 22 correct.

Q. I'm sorry. And, I got the docket number wrong. It's
DE --

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1 Α. There you go. I trusted you. 2 Ο. -- 07-064. The Commission recently issued an order in that investigation, Order 24,934, in which, at least 3 4 the way I read it, it indicated a willingness to 5 consider a company's specific request for energy 6 efficiency rate mechanisms. Are you familiar with that 7 Commission decision? Not in detail, but I've been briefed generally. 8 Α. And, could you tell us whether or not the Company will 9 Ο. file such a proposal with the Commission? 10 Well, we've been very clear that a priority for us is 11 Α. 12 to decouple our rates, so that we can eliminate the exposure that declining use has to our bottom line. 13 14 So, we will analyze what the Commission says very carefully. And, we'll probably have something to say 15 on the matter, if we think it would be an opportunity 16 for us to put forth a proposal that generally would 17 decouple our rates in a way to achieve the objective I 18 19 just set forth. Would you say that it's more likely than not that the 20 ο. 21 Company will file a proposal with the Commission? I can't say right now. 22 Α. 23 MS. HOLLENBERG: Okay. Okay, if it pleases the Commission, Ms. Hatfield would like to just 24 {DG 08-009} [Day II] {01-29-09}

1	approach the witness, and I'm going to ask him one		
2	question that's a follow-up from a question that I had		
3	asked Mr. Moul yesterday.		
4	BY MS. HOLLENBERG:		
5	Q. This document that you've just been handed has been		
6	identified as "Exhibit 45". And, what it is is it's		
7	Mr. Moul yesterday identified it as his response to the		
8	OCA's Data Request 1-67. And, if you would please look		
9	at the second sentence. And, that second sentence, the		
10	phrase "National Grid does not have any current plans		
11	to issue new common equity." Is that statement true?		
12	A. Yes.		
13	Q. Thank you.		
14	A. You're welcome.		
15	MS. HOLLENBERG: If I could have a		
16	moment please? Thank you.		
17	(Atty. Hollenberg conferring with OCA		
18	<pre>staff.)</pre>		
19	MS. HOLLENBERG: Thank you. Nothing		
20	further.		
21	CHAIRMAN GETZ: Mr. Damon.		
22	MR. DAMON: Thank you.		
23	BY MR. DAMON:		
24	Q. You've offered some opinions based on your what I		
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	think you termed your "practical position in the
	situation", right?
Α.	Yes.
Q.	And, so, you don't have anything to add to Mr. Moul's
	technical analysis regarding the derivation of what is
	a reasonable cost of equity?
Α.	I do not.
Q.	Are you familiar with the Company's press release dated
	November 20, 2008? This is National Grid, PLC's press
	release. It's a half year report for the six months
	ended 30 September 2008?
Α.	We issue a lot of press releases, and I think that's a
	pretty big one. So,
Q.	Okay. Would you accept
Α.	you'll have to help me.
Q.	Well, would you accept subject to check that in that
	one of the the first highlight is that "The outlook
	for 2008/2009 is positive, performing in line with our
	expectations"?
Α.	Okay.
Q.	And, another highlight is "The strong financial
	position with growing annual operating cash flows."
Α.	Right. For National Grid, PLC.
Q.	Correct.
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	Q. A. Q. A. Q. A. Q. A.

1	Α.	Right.
2	Q.	You mentioned that, in your position, you have the
3		opportunity to interact with investors. And, are you
4		talking about investors of National Grid, PLC?
5	Α.	I am.
6	Q.	And, what investors do you interact with?
7	Α.	I'm called upon, in my capacity, to participate in
8		meetings with analysts that cover both the buy and sell
9		side of the marketplaces that are interested in
10		investing in companies like National Grid, both from a
11		debt and equity perspective. Represent the Company at
12		the American Gas Association, where we hold investor
13		conferences and interact directly with the investor
14		community, and participate in analyst meetings
15		throughout the Company, where analysts attend, again,
16		who follow our stock and make recommendations on both
17		the equity and debt sides of our businesses.
18	Q.	Mr. Stavropoulos, are you aware that the yield on a 10
19		year on 10 year Treasury debt is now approximately
20		2 percent?
21	Α.	It's amazing, isn't it?
22	Q.	You're aware of that?
23	Α.	Yes, I am.
24	Q.	And, there has been a recent announcement that the
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[WITNESS: Stavropoulos]
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1 Treasury Department intends to repurchase Treasury 2 bills. 3 MR. CAMERINO: Objection. Objection. 4 Objection. Attorney Damon is testifying. I don't have 5 any reason to believe that what he's saying is untrue, but б I would want to see the material he's drawing this from. 7 I mean, it's one thing to quote a number, which is widely 8 available. But now he's talking about "announcements by the Treasury Department". 9 MR. DAMON: Well, he has offered new 10 11 testimony that's not in his prefiled testimony, about the 12 number of basis points above Treasuries and where the 13 basis points are right now on a 10 year note. I mean, 14 this is, I think, perfectly fair to go into this a little bit. I'm not going to spend much time on it, but --15 MR. CAMERINO: I just want to be clear. 16 I didn't object to the number. I'm objecting to the 17 pronouncements from the Treasury Department. And, Mr. 18 19 Stavropoulos is -- it's perfectly appropriate for him to 20 update his discussion of the spread between the Staff's 21 recommendation and the A-rated bond, because the Staff's recommendation changed. I'm just concerned we're going to 22 23 start to get a lot of new information that we can't check on it. If it's government bond rates, that's another 24 {DG 08-009} [Day II] {01-29-09}

1 story. 2 CHAIRMAN GETZ: Well, I want to hear the 3 question. We'll see how far this goes. 4 BY MR. DAMON: 5 Q. Let me, and I can rephrase it a little bit, have you 6 heard the policy announcement of the Fed to repurchase 7 T bills? 8 Α. I've heard a lot of policy announcements from the Fed 9 that seem to vary almost daily. And, have you heard this one in particular? 10 Ο. I've heard many announcements from the Fed regarding 11 Α. any number of things. 12 Q. Did you review the announcements and the news on this 13 14 point as of the news yesterday? 15 I read it briefly in the Wall Street Journal, yes. Α. What did you read? 16 Ο. 17 The Wall Street Journal. Α. 18 What did you read in the Wall Street Journal about this Q. 19 policy announcement of the Fed? That the Fed was going to more actively I think 20 Α. 21 purchase long-term securities, but it would just be from a quick read. 22 23 Okay. And, if they carried through with that Q. statement, what is the likely effect going to be on 24 {DG 08-009} [Day II] {01-29-09}

1		Treasury debt obligations?
2	Α.	I don't know. I don't think they know. I don't think
3		anything that they have anticipated happening, as a
4		result of pretty much actions they have taken, have
5		panned out. Impossible to speculate.
6	Q.	Are you aware that the premium between the Treasury and
7		utility yields has narrowed in the recent past?
8	Α.	Can you define that "recent past" for me please?
9	Q.	Okay. Let me move on. Morgan Stanley, as I understand
10		it, covers much riskier stocks than just utilities.
11		Would you agree with me about that?
12	Α.	Yes.
13	Q.	Now, the 10.5 percent ROE that the Rhode Island
14		Commission granted the I think it's the gas
15		distribution company of National Grid in Rhode Island,
16		right?
17	Α.	That's correct.
18	Q.	Okay. Is that a final decision?
19	Α.	Yes, it is.
20	Q.	And, is the Company appealing that?
21	Α.	We just received the order today.
22	Q.	Okay.
23	Α.	So, we'll have to take a look at the order and decide
24		what we will do. And, we haven't read it yet. We just
		[DC 09 000] [Dov II] [01 20 00]

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1 got it today. 2 Ο. You got the written order today. 3 Α. Yes. 4 Q. But the announcement -- the decision was made some time 5 ago, right? б Α. That's correct. 7 ο. Because it was in Mr. Moul's rebuttal testimony --8 Α. That's right. Yes. -- as of the middle of December? 9 Ο. Yes. You asked me if we were going to appeal the 10 Α. 11 decision, and I'm saying that we just got the written 12 decision today. Now, would you agree with me that the economy, in 13 Q. 14 general, in Rhode Island is much worse than it is in 15 New Hampshire at the present time? Relatively speaking, I would say "yes", probably worse. 16 Α. And, would you agree with me that the unemployment rate 17 Ο. in Rhode Island is among the highest in the country? 18 19 I would agree. Α. Do you know whether New Hampshire's unemployment rate 20 ο. 21 is higher or lower than the average rate in the United States? 22 23 Don't know. Α. Regarding the Company's, and now I'm speaking of 24 Q. {DG 08-009} [Day II] {01-29-09}

1		National Grid New Hampshire's energy efficiency
2		programs, the Company earns a shareholder incentive on
3		its performance regarding those programs. That's true,
4		right?
5	Α.	Yes, we do.
б		MR. DAMON: No further questions.
7		CMSR. BELOW: I do have a question.
8	BY C	MSR. BELOW:
9	Q.	In your experience, how frequently do gas utilities
10		come in to update their distribution rates and their
11		return on equity calculation to Commissions?
12	Α.	As part of a base rate case?
13	Q.	Yes.
14	Α.	Well, for our company here in New Hampshire, it's been
15		greater than 15 years. In some of our Massachusetts
16		properties, it's been 15 to 17 years. In our largest
17		Massachusetts property, it was five years ago. So, it
18		varies.
19	Q.	To what extent should we be setting a return on equity
20		that is specific to this point in time or a month or
21		two ago or the test year versus something that will be
22		reasonably durable, in terms of reasonableness to
23		attract appropriate investment, both now and over a
24		period of time in the future?

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1 Α. I think that the return on equity that's set should be 2 realistic and fair, based upon circumstances that are 3 in place today and for the foreseeable future anyway. 4 I think we have a wonderful track record of trying to 5 manage our businesses in a way where we're not 6 constantly seeking increases in our gas distribution 7 rates. I think we've been effective in managing that successfully over time in all the jurisdictions that we 8 do business. And, so, we're not a company that 9 constantly files for increases. And, as I said during 10 my updated rebuttal testimony today, we've got 11 12 significant capital investments that we need to make in this business. You know, \$50 million in the last two 13 years alone is significant. As I indicated, at the 14 rate of pipe replacement that we're going to -- that 15 we're going to be facing down the road, we're going to 16 have to make investments, capital investments that are 17 significantly greater than that. And, we have to have 18 19 the ability to effectively access the capital markets. Now, one of the examiners asked me about 20 21 "Are we going to issue equity capital in the next couple of years?" And, there's been some discussion 22 23 around "well, you know, if we're not going to issue 24 equity capital, why should we really be worried so much

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about the level of equity?" But the return on equity 1 2 directly affects the Company's ability to generate 3 positive cash flow. Directly affects the Company's 4 ability to have a interest coverage, cash flow, 5 interest coverage ratio, that's very, very important to 6 debt holders, and ultimately will affect the debt 7 ratings of the Company and our ability to cost-effectively access debt. 8 So, you know, back to your question, I 9 would hope that Commissions, in this day and age, would 10 recognize that, you know, sort of the traditional 11 methods that have been used really don't apply. That 12 this is a very unique time in the market. I think 13 every expert is saying it's going to be that way for at 14 least a year. It's been that way for almost a year 15 already. But we need to continue to go on. We need to 16 continue to invest in hopefully the growth in the State 17 of New Hampshire and continue to invest in the 18 19 reliability and integrity of our gas infrastructure. So, a fair rate of return, based upon what you know 20 21 today and what you think is going to happen in the reasonably near future seems right to me. 22 23 You said that you "don't foresee issuing new common Q. stock in the near future, the next year or two". To 24 {DG 08-009} [Day II] {01-29-09}

1		what extent do you expect to fund CapEx through
2		issuance of new debt versus retained earnings or other
3		internal sources of funds?
4	A.	It will be a combination of new debt and existing cash
5		flow. A lot is going to depend on the growth rate that
6		we're experiencing from our customer base. So, last
7		year we added about 3,000 new customers in New
8		Hampshire. Kind of goes to the question about Rhode
9		Island, despite the unemployment rate in Rhode Island,
10		we had even greater growth on a percentage basis in
11		Rhode Island than we experienced in New Hampshire.
12		But, if the growth withers away, if we don't have to
13		invest in the expansion of our gas distribution system,
14		if there is no GDP growth in New Hampshire, if we don't
15		have to make investments on the growth side of our
16		business, that's going to free up a little more cash
17		flow and defer us some debt issuances. But I would
18		hope that New Hampshire will continue to operate as
19		it's been, being sort of a leader in the national
20		economy, perform well and not get hurt as much as the
21		rest of the country, we'll be able to continue to grow
22		this business.
23		CMSR. BELOW: Thank you. That's all.
24		CHAIRMAN GETZ: Redirect?
		$\{DG \ 08-009\} \ [Day \ II] \ \{01-29-09\}$

		[WITNESS: Stavropoulos]
1		MR. CAMERINO: Just one minor point.
2		REDIRECT EXAMINATION
3	BY M	R. CAMERINO:
4	Q.	Mr. Stavropoulos, you were asked some questions by
5		Mr. Damon about "National Grid, PLC", which I take it
6		is the British holding company ultimately of National
7		Grid NH?
8	A.	That's correct.
9	Q.	And, National Grid, PLC, is its stock or some other
10		form, which I heard referred to as "ADRs", is it traded
11		on a U.S. Exchange?
12	A.	Yes, it is. The American Depository Receipts are
13		traded on the New York Stock Exchange.
14	Q.	So, when you had a discussion with him about your
15		interactions with investors, either in the gas industry
16		generally or in National Grid, PLC, did you mean to say
17		that you go over to London and talk to British
18		investors or are you dealing with American investors,
19		or both possibly?
20	A.	Both, but primarily American investors.
21		MR. CAMERINO: Okay. Thank you.
22		WITNESS STAVROPOULOS: You're welcome.
23		CHAIRMAN GETZ: Anything further for
24	th	is witness?

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[WITNESS: Stavropoulos] 1 MR. DAMON: Just one question. 2 RECROSS-EXAMINATION BY MR. DAMON: 3 4 Q. You mentioned steel replacement, cast iron pipe 5 replacement and so forth. But you're aware, under the 6 Merger Settlement Agreement in 06-107, there is a 7 separate recovery mechanism for cast iron bare steel 8 replacement? Right. Four miles a year, yes. 9 Α. 10 MR. CAMERINO: I have one, sorry. BY MR. CAMERINO: 11 And, that Cast Iron Bare Steel Replacement Program has 12 Ο. 13 a return of equity component, a rate of return 14 component that's included in it, is that your 15 understanding? 16 Α. Yes. And, the return on equity would come from this rate 17 Ο. case, I take it? 18 19 Α. That's correct. 20 MR. CAMERINO: Thank you. 21 CHAIRMAN GETZ: Okay. That's all for this witness. Thank you. You're excused. 22 23 WITNESS STAVROPOULOS: Thank you very Thank you for allowing me to reshuffle the 24 much. {DG 08-009} [Day II] {01-29-09}

1 schedule. 2 CHAIRMAN GETZ: Mr. Damon, recall --MR. DAMON: Well, I think he wants to 3 4 cross-examine Dr. Chattopadhyay. 5 CHAIRMAN GETZ: I assume, yes. So, б let's recall Dr. Chattopadhyay. 7 (Whereupon Pradip K. Chattopadhyay was recalled to the stand, having been 8 9 previously sworn.) PRADIP K. CHATTOPADHYAY, Previously sworn 10 CROSS-EXAMINATION (resumed) 11 BY MR. CAMERINO: 12 All set? Okay. Good afternoon, Dr. Chattopadhyay. I 13 Q. 14 want to ask you first some background questions just about the preparation of your testimony. I take it 15 that you're here to testify on behalf of the Commission 16 17 Staff today? 18 Yes. Α. 19 Okay. So, while you're giving your personal view of 0. what the return on equity should be, this is really the 20 21 Staff view as well, the Staff as a whole? That's correct. 22 Α. 23 Okay. If I asked another Staff person to come up and Q. testify on return on equity, I wouldn't get a different 24 {DG 08-009} [Day II] {01-29-09}

1 number? 2 Α. Because people do use their personal judgment, like you 3 just said, if some other person was doing this, it's 4 possible they might end up -- they might come up with a 5 different estimate. 6 Q. So, it's kind of luck of the draw? I mean, if I had 7 gotten Mr. Frantz, would I have gotten a different number? 8 9 MR. DAMON: Objection. I think this is quite argumentative. 10 11 MR. CAMERINO: I think it goes to the issue of whether there's a particular methodology, and we 12 13 would get one number from the Commission Staff, or whether 14 there are multiple methodologies, which I think the Commission is well aware is a significant issue in this 15 16 case. CHAIRMAN GETZ: Well, I quess I'm having 17 a tough time following this line of argument. I mean, 18 19 isn't the opposite true of whoever the Company engaged 20 might have come up with a different analysis and a 21 different number? I mean, I'm not sure where we're going. MR. CAMERINO: Well, I'm happy to 22 23 explain. I think the Staff has taken the position that there is a way to do return on equity, and it needs to be 24 {DG 08-009} [Day II] {01-29-09}

1 DCF. That there are policies in place, and that the Staff 2 follows those processes. And, so, what I want to 3 understand is whether those processes change depending on 4 the witness or change depending on the time. So, really, 5 it's that simple. б CHAIRMAN GETZ: "Change depending on the 7 time", what do you mean by that? MR. CAMERINO: Well, I'm trying not to 8 preempt my entire cross-examination. But the presentation 9 by Dr. Chattopadhyay I think intimates that, you know, 10 this is the way that cost of equity should be determined. 11 And, I don't think it is a mystery that other Staff 12 members have testified on different processes. And, so, 13 14 that's what I'm trying to just get clear on the record. I can move on, but, frankly, I'm going 15 16 to have questions about those different processes. CHAIRMAN GETZ: Well, then, I think you 17 18 need to ask those questions then. I think, to the extent 19 any witness in any case takes a position as a Staff member, there is a combination of the witness's own 20 21 training and experience and consistency with the precedent at the Commission. So, I would just suggest that you move 22 23 ahead. 24 MR. CAMERINO: Okay.

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BY MR. CAMERINO: 1 2 Ο. Dr. Chattopadhyay, in preparing this testimony, was 3 this entirely your own work or did you rely on others 4 at the Commission to assist you? And, I'm talking now 5 about what's in the testimony, not background work you 6 may have done, but what ended up in the testimony. 7 Α. Yes. What's ended up in the testimony is entirely my 8 work. Okay. So, and again, I don't want to put words in your 9 Ο. mouth, did you consult with --10 Say that again, I'm sorry. 11 Α. 12 Ο. I don't want to put words in your mouth. So, did you consult with anyone in the Gas Division, the Water and 13 14 Gas Division in preparing your testimony? Yes, certainly, I did, to some extent. 15 Α. 16 Okay. And, is there anything that's in the testimony Q. that you can point to that resulted from conferring 17 with people in the Gas -- Water and Gas Division, or 18 19 you just had general consultations? To the best of my knowledge, I'm not aware that I can 20 Α. 21 point out anything specific in my testimony that is exclusively based on my discussions with folks in the 22 23 Gas Division. But, in general, I did have discussions 24 with them.

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1	Q.	Let me put it a different way. Not exclusively based,
2		but where there are discussions that reflect what's
3		going on in the gas industry in your testimony that
4		came from people in the Gas Division?
5	A.	Yes.
6	Q.	Okay. Would you point me to those things that are gas
7		industry related. And, I don't want to take a lot of
8		time with this, if it's more complicated than that,
9		I'll take a different approach.
10	Α.	The kind of discussions I had with the folks in the Gas
11		Division was, you know, "Please tell me what kind of
12		company National Grid New Hampshire is." And, they
13		were really general discussions.
14	Q.	Okay. Now, at the Commission, you worked on electric
15		utility issues from 2002 until 2007, correct?
16	Α.	2002 to 2006.
17	Q.	Okay. And, currently, you work in the
18		Telecommunications Division, right?
19	Α.	Let me correct what I said just a while ago, I'm trying
20		to remember, I'm trying to recall what the date was
21		when I I think it was from August 2002 to beginning
22		of 2007, in early January.
23	Q.	I'm not going to hold you to the specific dates. I'm
24		just it was the Electric Utility Division that you
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1 worked in previously? 2 Α. Yes. 3 Ο. And, currently, you work in the Telecommunications 4 Division? 5 Α. That is correct. 6 Q. Okay. And, have you ever provided return on equity 7 testimony in a gas case before? No, I haven't. 8 Α. Okay. Have you ever worked in the gas industry? 9 Ο. You mean, like worked on gas industry or worked in? 10 Α. 11 No. In the gas industry? Q. 12 Α. No, I haven't. Q. Okay. Now, you were employed by the Massachusetts 13 14 Department of Public Utilities, correct? 15 Α. Yes. And, how long were you employed there? 16 Q. 17 For less than six months. Α. Okay. During that time you did work on some gas 18 Q. industry issues, right? 19 20 Α. Yes. 21 Ο. Were those return on equity issues? No, not at that time. 22 Α. 23 Okay. That experience, those less than six months, Q. 24 that's -- did you have other -- have you had other gas

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1 industry experience, either in or about the gas 2 industry? As far as -- As far back as 2001, 2001 September 3 Α. 4 through middle of 2002, I did work for the National 5 Regulatory Research Institute, in Columbus, Ohio, on 6 gas-related issues. 7 Ο. Were those return on equity? 8 Α. No. Okay. I want to ask you some basic information about 9 Ο. National Grid NH, but we also call "EnergyNorth Natural 10 11 Gas". How many customers does the Company have? Those are the details that I didn't necessarily use in 12 Α. my analysis. So, I didn't -- I don't know for now. 13 14 Okay. Can you just sort of generally describe the Q. 15 Company's service territory to me, relative to geography of New Hampshire, give me some sense of its 16 17 location? 18 Again, I know that I am working on the National Grid Α. 19 New Hampshire case. I know that we are talking about New Hampshire, but I cannot specifically tell you which 20 21 regions in New Hampshire. Okay. Let me tell you what my understanding is, and 22 Ο. 23 with each item what I want to know is can you confirm that or do you simply not know, okay? Let me take --24 {DG 08-009} [Day II] {01-29-09}

		[WIINEDD: Chaccopadityay]
1		first of all, National Grid NH serves only one state,
2		is that correct?
3	Α.	National Grid what? New Hampshire
4	Q.	Serves only one state?
5	Α.	Yes.
6	Q.	Okay. It's service territory is fairly narrow
7		territory, that is just east or west of the I-93
8		corridor, from Nashua up to Tilton?
9	Α.	I cannot confirm that.
10	Q.	Would you say that it has a highly weather-sensitive
11		load?
12	Α.	The limited work that I did in Massachusetts about gas
13		industry, I would kind of agree, that is true.
14	Q.	Okay. Would you say it's fair to say it serves an area
15		it does not have a geographically diverse area that
16		it serves?
17	Α.	I'm not sure exactly what you mean by "geographically
18		diverse".
19	Q.	Well, some utilities serve very large areas or in
20		multiple jurisdictions even, which may affect well,
21		they serve large areas, maybe large states or multiple
22		states. How would you describe National Grid NH in
23		that regard? If you don't know, that's fine.
24	Α.	I don't know.

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1	Q.	Okay. Would you say that National Grid NH has a
2		relatively low customer saturation of its service
3		territory, versus some other utility, say, in your peer
4		group? Do you know?
5	Α.	Can you please explain what you mean by "customer
6		saturation"?
7	Q.	Okay. You're not familiar with the term? I can
8		clarify it.
9	Α.	I would appreciate it if you can just explain it.
10	Q.	What I'm referring to, and I may be misusing the term,
11		is the percentage of the households and businesses in
12		the service territory that receive natural gas service,
13		versus oil or propane or other fuels.
14	Α.	Okay. And, can you again repeat the question that you
15		were asking?
16	Q.	My question is, whether you would say, and again the
17		answer may be "I don't know", but would you say that
18		the National Grid NH service territory, there's a
19		relatively low customer saturation versus, say, other
20		utilities in the peer group, such as Midwestern
21		utilities?
22	Α.	I don't know.
23	Q.	You don't know. Would you say that National Grid NH
24		has more difficult soil conditions and a more
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1		challenging construction season, in terms of some of
2		the operational challenges it faces and the like,
3		versus other utilities in your peer group?
4	Α.	I don't know.
5	Q.	You don't know. Do you know whether National Grid NH
6		is served by one interstate gas pipeline or more than
7		one?
8	Α.	I don't know.
9	Q.	Are you aware where on that interstate pipeline
10		National Grid NH is located? Is it located at the end
11		of the pipeline or somewhere along the pipeline?
12		MR. DAMON: He already said he didn't
13	kn	ow.
14		MR. CAMERINO: Well, I'd like to confirm
15	th	at he doesn't know the answer to that question.
16	BY T	HE WITNESS:
17	Α.	Like I said, I do not know.
18	BY M	R. CAMERINO:
19	Q.	You do not know. So, you're not familiar with the gas
20		supply and operational challenges that might be created
21		by where the Company is located on that gas pipeline
22		versus other utilities?
23	Α.	I haven't studied that.
24	Q.	You don't know about the risks that are created by the
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1		need to have supplemental supplies or non-pipeline
2		supplies to serve the winter customer load?
3	Α.	I know that there may be needs for it, but I don't I
4		can't tell you, you know, I've studied it to give you
5		that, you know, compared to other regions whether it's
6		high risk or low.
7	Q.	Would you agree, though, that periods of extreme cold
8		create supply constraints that really can create
9		operational challenges for a gas system?
10	Α.	Again, my brief stint at Massachusetts, based on my,
11		you know, stint there, I would say "yes".
12	Q.	And, during those cold snaps, those can occur multiple
13		times in a winter sometimes? Unfortunately, like this
14		month, maybe multiple times in a month?
15	Α.	Sure.
16	Q.	And, those present significant challenges for managing
17		gas supply and making dispatch decisions?
18	A.	Yes.
19	Q.	Would you agree that gas costs have been quite high in
20		recent years?
21	A.	Yes.
22	Q.	They have been subject to extreme volatility?
23	A.	What? The prices?
24	Q.	Yes.

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1 Α. Yes. 2 Ο. Would you agree that regulators are more likely to 3 closely scrutinize the Company's gas costs during 4 periods like that? 5 Α. To the best of my knowledge, yes. 6 Q. They'll look at gas supply procurement decisions, 7 they'll look at dispatch decisions, correct? 8 Α. Yes. There's a considerable risk that a utility operating 9 Ο. 10 under those circumstances faces of cost disallowances? 11 MR. DAMON: Well, I'm going to object at this point. All that is in the context of cost of gas 12 rates, and I don't see what relevance it possibly has to 13 14 setting a ROE on the Company. MR. CAMERINO: Well, my next couple of 15 questions I think will point that out. 16 17 CHAIRMAN GETZ: Yes. We'll allow this line to continue. 18 19 BY MR. CAMERINO: So, I'm just trying to understand, all of those things 20 Ο. 21 create a heightened risk of cost disallowance. Am I 22 correct about that? 23 Α. I am --If you don't know, --24 Q. {DG 08-009} [Day II] {01-29-09}

1 Α. Generally. 2 Ο. Generally. And, for a company this size, the amounts 3 that are at stake in those decisions, those are in the 4 millions of dollars, correct? 5 Α. I, you know, again, --6 Q. You don't know? 7 Α. -- what do you mean by "millions of dollars"? What do 8 you mean by "stake"? I mean, that's -- I'm not sure 9 exactly. What do I mean by? 10 Ο. What do you mean by "stake"? 11 Α. Oh, "at stake"? 12 Ο. 13 Α. Yes. 14 Q. That the Company could suffer a disallowance, is what I 15 mean. 16 Α. Perhaps true. So, it could lose -- a disallowance means it would lose 17 Ο. money, correct? It would be money it could not 18 19 recover? 20 Α. Yes. 21 ο. But, in the cost of gas mechanism, if the Company, it makes proper dispatch and procurement decisions, it 22 23 doesn't have an opportunity to make a profit on that gas supply, does it? 24

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1 Α. That is correct. 2 Ο. But it could lose money? 3 Α. Yes. 4 Q. By the way, do you know if the -- for 100 basis point 5 swing in the return on equity, do you know how many 6 dollars that is in this case approximately? 7 Α. Again, I had discussed this with the folks in the Gas 8 Division, and they gave me a sense, somewhere around 9 \$750,000. And, that compares to the millions of dollars that we 10 Ο. 11 discussed before that could be lost through a gas 12 supply disallowance? Again, because I'm not sure what that amount is, if 13 Α. 14 that is what you're stating, then I'll agree. Okay. I want to ask you some questions about the range 15 Ο. of reasonableness that you talked about before. First 16 of all, I assume you would agree that, in setting a 17 return on equity, there is a range of reasonableness, 18 19 it's not just a single number that is reasonable? That is correct. 20 Α. 21 ο. Okay. And, it's hard to measure cost of equity with precision, is it not? 22 23 Absolutely. Α. Okay. Would you say it's as much an art as a science? 24 Q. {DG 08-009} [Day II] {01-29-09}

1	A.	Yes, I've heard those terms being used. It requires a
2		lot of judgment. And, so, if that is what you're
3		meaning, I agree.
4	Q.	Thank you. I think that's fair. And, you can't just
5		crank out a formula, you've got to look at how the
б		numbers you're using compare to what you know about the
7		real world, correct?
8	Α.	To the extent that those numbers are already reflective
9		of how the investors look at realities, I have enough
10		faith in the numbers, even though there might be still
11		an issue of "what is a reasonable range?", I don't
12		necessarily agree that I have to know exactly
13		everything about those realities. Because the numbers
14		that you're getting, they are not my creation, they are
15		based on the expectations of investors, and investors
16		have all internalized a lot of factors in coming up
17		with their sense of what the what the cost of equity
18		is. And, that's based on what their sense of reality
19		is.
20	Q.	But, first, you have to decide which of those numbers
21		you're going to pick, right?
22	Α.	Say that again.
23	Q.	You said you "have a lot of faith in those numbers,
24		because they reflect what investors think."
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1 A. Yes.

Q. And, so, my question is, when you say "those numbers",
first you have to decide which numbers you're going to
use, right?

5 Α. In the context of methodology, what I'm trying to say 6 here is that the approach that I've predominantly 7 choose, which is the DCF approach, that has in-built 8 characteristics to it that really responds to what investors think the realities are and investors' 9 expectations, how the prices have behaved. And, though 10 one particular application of the DCF might give me one 11 result, and another application of the DCF might give 12 me another result, and, therefore, I need to look at 13 several numbers, generally speaking, what I am saying 14 here is, I have a significant faith in that approach. 15 16 And, then, the judgment comes in terms of, you know, what kind of numbers I might get assuming different 17 18 things about the growth components, etcetera. 19 But, when you say "DCF", you have to apply a tremendous Ο. 20 amount of judgment before you use that formula, 21 correct? 22 Α. That is correct. 23 And, so, you have to decide which numbers to use, for Q.

24 example, you used earnings per share and dividends per {DG 08-009} [Day II] {01-29-09}

1		share and book value per share in order to derive your
2		growth figure, correct?
3	Α.	That is correct.
4	Q.	Your forebearers at this Commission didn't use book
5		value per share, did they?
б	A.	If you are talking about my testimony even in the last
7		case, then I have
8	Q.	I'm not looking for what you did specifically. I'm
9		trying to just establish that, when you say you "have
10		faith in those numbers", we first have to decide which
11		of the numbers we're going to put forward, whether to
12		use DPS, BVPS. Am I right about that or am I missing
13		something?
14	A.	I'm not sure I understand your question. Can you
15		repeat that?
16	Q.	Okay. You said you "have faith in the numbers, because
17		they reflect what the investment community thinks".
18		And, I'm trying to tie that back to your statement
19		about judgment, and say that there have to first be
20		choices made as to which numbers are used and which
21		numbers are not used. Would you agree with that?
22	A.	Sure.
23	Q.	Okay. And, in fact, you've taken some numbers in your
24		DCF process and decided they're outliers and not use
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them, correct? 1 2 Α. That is correct. Okay. And, there are, I think we've discussed this, 3 Ο. 4 but there are various formulas that are used in the 5 industry to determine what cost of equity is, correct, 6 not just the DCF? 7 Α. That is correct. But, to the best of my knowledge, in New Hampshire PUC, the predominant method has been the 8 9 DCF approach. And, that is also corroborated by Mr. Moul's testimony. 10 But the Commission, for starters, could and has decided 11 Ο. 12 to carry out that DCF calculation in different ways, has it not? 13 The Commission has? Say that again. 14 Α. Well, the Commission has adopted different inputs to 15 Ο. the DCF formula at different times, has it not? 16 MR. DAMON: Well, I think I'm going to 17 18 object. I mean, this is really calling for a legal 19 conclusion, I think. He has asked "what the Commission could do", and I think that calls for a legal conclusion. 20 21 CHAIRMAN GETZ: I took the question to be "what has the Commission done in applying the DCF in 22 23 the past?" MR. DAMON: Well, if that's the 24 {DG 08-009} [Day II] {01-29-09}

1 question, I don't have an objection. 2 MR. CAMERINO: If I didn't phrase it 3 that way, I will now. 4 BY THE WITNESS: 5 Α. The fact that even before Staff has used different 6 approaches, even though they are still using DCF, then 7 what you're saying is correct. BY MR. CAMERINO: 8 The Commission as well, not just the Staff's 9 Ο. recommendations, the Commission has changed how it has 10 11 implemented the DCF over the years, has it not? 12 Α. That is correct. Okay. And, in the industry, in the utility industry, 13 Q. 14 whether you look at commissions or analysts or anybody else, there are varying ways -- there are varying 15 methodologies that are used to determine cost of 16 equity, correct? 17 18 Yes. Α. 19 And, those methodologies are given different weights at Ο. different times by different commissions and different 20 21 analysts, correct? I haven't looked at all commissions, but, you know, 22 Α. 23 what you're saying sounds generally true. 24 Q. Okay. Would you agree that -- well, in your testimony, {DG 08-009} [Day II] {01-29-09}

1		you say that the cost of equity is "the minimum return
2		required to attract investment by investors". Do you
3		recall that?
4	A.	Yes, that's the opportunity cost concept.
5	Q.	Right. I want to explore what you mean by the word
6		"minimum", okay? You don't mean, do you, that it's the
7		bottom of the range of reasonableness that the
8		Commission should be selecting? That would be the
9		minimum, wouldn't it?
10	Α.	The context of the use of that term there is to really
11		explain that, in an investor's mind, there is a number
12		there, which is the minimum required for that investor
13		to invest in that company. Okay? When I'm using the
14		DCF approach, I'm being fairly conservative that I'm
15		not really talking about that bare minimum. Because,
16		first of all, different investors have different sense
17		of that bare minimum.
18	Q.	But my question is really, what is your understanding
19		of the Commission's job here in setting the cost of
20		equity? Is it to set the minimum or should it be
21		selecting from a range of reasonableness? Should it be
22		looking to the bottom of that range only or should it
23		be looking to a wider range and somewhere in the
24		middle, or at the high end?

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1 Α. The difficulty I'm having in understanding your 2 question is this: The use of that term in my 3 testimony, the "minimum" return on equity required, is 4 really about an opportunity cost concept. And, when 5 I'm coming up with specific estimates, I'm being 6 conservative enough that I don't become so strict that 7 I'm really going for that minimum number. Because, if 8 there is a change in the economy, then that would mean that it's going to create problems for investors. So, 9 really, when you're talking in terms of the range of 10 numbers, my range of numbers are not starting at the 11 12 minimum cost of equity in that sense. I'm looking at very reasonable numbers that I can get at and be 13 14 significantly confident that I'm not being overly restrictive or I'm not penalizing the Company. That's 15 how I look at it. 16 And, so, if you're talking about a range 17 in that sense, then I'm not judging whether the 18

Commission should go for the minimum or the maximum or anywhere in between. It's their decision. But, as far as my recommendation is concerned, it could be anywhere. I mean, depending on my, you know, preferred approach.

Q. Establishing a return on equity is limited by certain {DG 08-009} [Day II] {01-29-09}

1 legal principles, correct? You've discussed some of 2 those in your testimony? 3 Α. That's correct. 4 Q. And, am I correct that the Commission needs to 5 identify, at least for its own understanding, a range б of reasonableness, and then select a return on equity 7 that is within that range? MR. DAMON: Well, I'm going to object 8 again. I think this is getting into the legal concepts 9 and so forth that are more properly addressed in a brief. 10 11 MR. CAMERINO: Well, the witness testified on what the legal standard was. But, if he 12 doesn't know, then I'll take "I don't know" for an answer. 13 14 CHAIRMAN GETZ: Yes, I think it's a relevant area of inquiry because of the application of the 15 DCF to the legal standard, which is consistently done by 16 all rate of return witnesses. But it seems to me here 17 what we have is a mixing of the concepts of an economic 18 19 concept and a legal concept. And, I didn't take the 20 witness to be saying, in his use of the word "minimum", 21 that he was recommending that we, at the same time, select whatever the minimum range or the low end of the range as 22 23 the cost of equity that we should adopt. So, I think we're getting more confusion and less clarity around that, 24 {DG 08-009} [Day II] {01-29-09}

1 because we're mixing what I can see are two different 2 concepts. MR. CAMERINO: Well, let me take that as 3 4 guidance and reframe the question and see if we can move 5 on. 6 BY MR. CAMERINO: 7 ο. Your testimony, in a number of places, you referred to 8 the "minimum rate of return" and the "least cost to 9 customers", you referred to "wealth transfers to shareholders", and that kind of caught my eye, okay? 10 11 And, so, that's why I want to ask you this question. One of the standards, maybe the principal standard for 12 determining cost of equity, is the opportunity cost 13 14 concept, correct? Α. 15 Yes. All right. And, in your testimony, you cite a couple 16 Q. of times to a book by a David Parcell, called "The Cost 17 of Capital - A Practitioner's Guide". Do you recall 18 19 that? That's correct. 20 Α. 21 ο. I take it you think that's a fairly instructive or authoritative source? Otherwise, I assume you wouldn't 22 23 have cited it in your testimony. That is correct. 24 Α.

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1 Ο. Okay. I just want you to read what he says about the 2 "opportunity cost" context. And, just -- this is from 3 Page 1 of his book. He has a paragraph there that 4 starts "The cost of capital". 5 MR. DAMON: Can I look over his shoulder 6 and see what he's talking about? 7 MR. CAMERINO: Yes, please. Yes, I 8 assume -- I mean, he's cited the book, I assume he has it. BY MR. CAMERINO: 9 Just read that. 10 Ο. Which part are you asking me to read? 11 Α. 12 Ο. The sentence, I'm really interested in what he says about what "opportunity cost" means, this first 13 14 sentence in the paragraph in the middle of the page. 15 Α. Yes. 16 Could you just read that sentence, as to what Q. Mr. Parcell says about what "opportunity cost" means. 17 First of all, he's discussing the "cost of capital". 18 Α. 19 So, just, you know, it's not cost of equity. "The cost of capital, using any of these meanings, is thus an 20 21 opportunity cost, which is defined as the highest alternative return on an investment of similar risk." 22 So, it's the highest return that someone could get from 23 Q. an investment of similar risk, correct? 24

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1	A.	The concept of "opportunity cost", it is about, when
2		I'm going to do something, I will look at what
3		alternatives I have, and what's my gain, you know,
4		speaking crudely, out of doing it, I'm going to look at
5		the alternatives and go for the highest gain that I can
6		get. So, in that sense, when I'm using the term
7		"minimum return required", you know, in our discussions
8		a while ago, that is really driven by what alternatives
9		I have, and I'm looking at the highest return that I
10		can get out of the alternatives. So, still I'm talking
11		about the minimum return there. And, I don't see any
12		any difference in the use of my, you know, concept
13		of "opportunity cost".
14	Q.	There may not be a difference, I'm trying to clarify.
15		What you engage in is you look at the investment
16		alternatives of comparable risk, and you determine the
17		highest return that the investor could get, and that's
18		your cost of equity, correct? Because, otherwise
19		excuse me, I'll just clarify. Because, otherwise, the
20		investor would take the other opportunity, right?
21	A.	But I still don't see that as a as an inconsistency,
22		as far as what I was explaining before. Which is, when
23		you're looking at the minimum return required, you're
24		looking at the alternatives that are available to you.
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1		And, you're comparing what you need with the highest
2		return that you can get. That's That is the concept
3		of "opportunity cost".
4	Q.	Okay. Thank you. I want to ask you some things about
5		some of the assumptions in the DCF method. First of
6		all, you would agree, I take it, that all methods of
7		measuring or calculating cost of equity have
8		simplifying assumptions, right?
9	Α.	That is correct.
10	Q.	That's true of the DCF method as well?
11	Α.	Yes.
12	Q.	Okay. And, the DCF method has its own flaws, right?
13		It's not perfect?
14	Α.	Like any other model, it has assumptions.
15	Q.	Well, the assumptions don't bear out in the real world
16		in all cases, correct?
17	Α.	That's true.
18	Q.	Okay. And, so, that's actually, if it didn't have
19		these flaws, then it might not be helpful to look at
20		other models. But, given that it does have flaws,
21		isn't it instructive to look at other ways of
22		determining cost of equity as well?
23	Α.	The reason why I used I looked at CAPM is precisely
24		because of that. Because I talked about it in my
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testimony that, even though I believe that the DCF approach is better, it is useful to look at other methods.

4 Q. Just to look at them or to make use of them? 5 Α. Certainly, to come to a judgment as to whether I should 6 just rely on the DCF approach for my preferred cost of 7 equity estimate or should I end up using the numbers 8 that I get from the other approaches, because for some reason I believe that, you know, the DCF estimate that 9 I'm getting, they are kind of not totally dependable. 10 But the last -- the recommendation that I have in this 11 12 case, I have looked at CAPM, essentially because I wanted to use that as a kind of a check. And, I was 13 able to conclude that the DCF approach that I'm using 14 is good enough. And, as far as my recommendation is 15 concerned, with respect to the point estimate I have 16 start with or rather stayed with the three approaches 17 18 in, you know, in the appendix that I've shown on top, 19 which is the DCF ROE estimates.

Q. You're saying, and correct me if I got this wrong, that, by looking at your CAPM result, you determined that your DCF figure was "good enough", is that what you said?

24 A. As far as my point estimate is concerned. But you also {DG 08-009} [Day II] {01-29-09}

1		have to keep in mind, consistent with what I've done
2		before, I have used the CAPM estimate to give a sense
3		to the Commission as to where the central tendencies
4		might lie when you use different approaches and, you
5		know, plug them together.
6	Q.	But the first time you did CAPM, it was significantly
7		above your DCF, wasn't it?
8	A.	The market realities then were completely different
9		from what market realities are right now.
10	Q.	And, now it's
11	A.	And, that is correct, what you just said.
12	Q.	And, now it's below your
13	A.	That's true.
14	Q.	But that still gave you a check to tell you that your
15		DCF was correct?
16	A.	Absolutely. In a market where the interest rates are
17		low, it is generally true that the CAPM estimates turn
18		out to be low. And, I'm not surprised that's what I
19		got, is, you know, what I got is really reflecting the
20		realities right now.
21	Q.	Wouldn't that kind of swing in your methodology
22		potentially tell you that there is something wrong with
23		your methodology if it could change that much in such a
24		short period of time?
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1 Α. I have pointed out in my testimony that I'm not a very 2 big fan of the CAPM approach. There are reasons, a 3 specific reason for me is that it kind of uses a beta 4 that's based on the previous five years of stock 5 prices, and, you know, the estimation that Value Line 6 conducts to estimate beta is based on previous five 7 years' data. And, also -- not "also", but what that does is there is a tendency for the CAPM estimates to 8 be not very accurate. Even in academics, people have 9 looked at the using of beta to figure out what the next 10 year's return was, you know, as an expectation. 11 There is evidence that it doesn't do a good job in explaining 12 what reality turned out to be. And, it is a very poor 13 approach. So, I'm not surprised that the CAPM approach 14 has tended to swing the way it is. And, I have 15 indicated that possibility, perhaps indirectly, even in 16 17 my testimony. Well, Mr. Moul's CAPM result didn't swing like yours, 18 Q. 19 did it? Mr. Moul, first of all, he was using a measure of the 20 Α. 21 Risk Premium that he kind of based on forecast and his judgment. I have used the 10 year Treasury bond yield 22 23 or note yield. And, there is a pretty vibrant market 24 out there. What that Treasury note does, when you look

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1		at the yield, it tells us that people expect that the
2		return is going to be so much, as far as the proxy
3		risk-free number is concerned, over the next ten years
4		to that extent.
5		Now, I prefer using the market number
б		any day, compared to what some analyst might be
7		forecasting, because the market itself is providing me
8		that information. It is not like I am looking at the
9		cost of equity, which is not directly observable, or
10		like the earnings growth rate, how people expect it,
11		there isn't a market for that. So, I have to depend on
12		analysts' forecasts. There is That's one of the
13		reasons why he's starting off at a high number. The
14		other is he has introduced leverage adjustment even
15		there. And, even though
16	Q.	Dr. Chattopadhyay
17	A.	Yes.
18	Q.	I would say "I don't mean to cut you off", I do mean
19		to cut you off. I'm just concerned about time.
20		Procedurally, I'm fine to let you continue on, but I
21		just would like to make it through the questions that
22		I've got. So, my only question was that Mr. Moul's
23		CAPM didn't swing significantly the way yours did with
24		the update. And, you updated over a shorter period. I
		$\{DG 08-009\} [Day II] \{01-29-09\}$

1		understand you don't like the way he did the
2		methodology, and now you're going into what you don't
3		like.
4	A.	Yes.
5	Q.	If either your counsel or the Commission feels they
6		need the rest of that, I'll stand here. But I'm just
7		concerned about time.
8	Α.	Can I continue though?
9	Q.	Please.
10	A.	The point I'm trying to make is this: That the numbers
11		that he has used is giving me a number that I don't
12		really trust. So, if you're going to tell me whether
13		there has been a swing or not, I have to first believe
14		that the approach that he has used is reasonably okay.
15		And, what I'm pointing out, when I use some other
16		numbers, there is a good chance that even his number
17		may have gone down, compared to what it was before.
18	Q.	And, you don't like his CAPM method. We know that,
19		right? You said that in your testimony?
20	A.	That's correct.
21	Q.	Okay. Other commissions, there are a number of other
22		commissions that have used the CAPM, correct?
23	A.	Not that I'm, you know, directly aware of, but if
24		you're asking me.

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1 Q. All right. So, you're unaware?

2 A. Yes.

Q. Okay. Just in terms of your criticism of Mr. Moul's testimony, he did use the same method in both the original and updated testimony, though, right? We're comparing apples to apples. It's your criticisms are constant across what he did?

8 Α. Yes. What I'm saying is this "you were talking about 9 there being a "swing" in my number. And, my methodology is also constant, hasn't changed. 10 The point I'm trying to make is, even his methodology being 11 constant, if it is applied in a way that I think is 12 correct, now I understand that that is itself going to 13 14 change the methodology, but, if that method was being used consistently, then I have a feeling that even his 15 estimates would have come down. But you also have to 16 keep in mind that he was using outdated, you know, not 17 18 "outdated", but he was using data from before, and not 19 the data that I've used, I'm depending on right now. Your position is that the Commission should not rely on 20 ο. 21 CAPM, is that correct? When I recommended the range, I am giving weight to 22 Α.

23 CAPM there. What I'm saying is, my preferred approach 24 is the one that uses only the DCF ROE estimates. That {DG 08-009} [Day II] {01-29-09}

1		is in the upper end, in terms of the current.
2	Q.	Let me I actually was somewhat confused by your
3		testimony on that. So, let me try and clarify for my
4		own mind. Is it I'll change what I said before. Is
5		it fair to say that you are advising the Commission to
б		give some weight to the CAPM method in determining
7		return on equity in this case? Is that a fair
8		statement or not?
9	A.	If you're talking about my preferred point estimate, I
10		am recommending that no weightage should be given to
11		the CAPM approach.
12	Q.	No weight
13	A.	No weightage should be given to the CAPM approach, to
14		use that to come up with the point estimate. But I am
15		aware that this is not precise science. And, I'm just
16		giving them a range to work with. And, in that range,
17		I have given some weightage to CAPM, as far as the low
18		number is concerned, in this updated analysis.
19	Q.	Let me ask it a different way. Would it be
20		unreasonable for the Commission to give weight to the
21		CAPM in its consideration?
22	A.	Depends on what kind of weight they are giving it. So,
23		if it is not too much, I would say it's unreasonable
24		sorry, it is reasonable. Sorry. Very sorry.
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1	Q.	I'm hanging on by a thread as it is. Would a third
2		weight, would that be appropriate?
3	A.	What?
4	Q.	A third? One third?
5	A.	In my opinion, no.
6	Q.	No?
7	A.	You asked me whether it would be appropriate. I said,
8		"In my opinion, no."
9	Q.	Are you aware that the Staff filed testimony 11 months
10		ago suggesting that the Commission give what looks to
11		me like equal weight for DCF, CAPM, and Comparable
12		Earnings? Have you seen that testimony?
13		MR. DAMON: Could counsel please
14	de	escribe what testimony this is from?
15		MR. CAMERINO: Yes. This is the
16	te	stimony filed in Pennichuck Water Works, DW 06-073,
17	Fe	bruary 23, 2007.
18	BY I	THE WITNESS:
19	A.	Is that the testimony by Mr. Parcell?
20	BY M	IR. CAMERINO:
21	Q.	Mr. Parcell, who I think is the same fellow who wrote
22		this book that you cite.
23	A.	Yes, I am aware of it. I'm aware of it. That doesn't
24		mean that I have to necessarily agree with that
		{DG 08-009} [Day II] {01-29-09}

1 approach.

2 Q. Okay.

I'm just giving you my opinion, that the weightage to 3 Α. 4 CAPM should be significantly lower. But it's not a 5 very precise -- none of them are very precise. But 6 it's, in my opinion, it does pretty poorly. But, you 7 know, in some sense, there are investors out there who 8 can -- who, you know, their expectations are kind of captured by this estimate. It is reasonable that some 9 weight should be given to it. That's my -- And, I 10 11 haven't really thought about what's that exact 12 percentage, even though I did that in my recommendation 13 for the range in this case. But that's just, again, a 14 reasonable number that I worked with. And, you don't like the CAPM because of its simplifying 15 Ο. assumptions, right? 16 17 Yes. But also because I don't like the, and as my Α. testimony corroborates, I have used the same method, 18 19 and there is a wide swing. It's just that, you know, 20 the way the numbers go into it, and you sort of rely on 21 what's happening in the past, I don't have a whole lot of trust in its ability to capture forward-looking, 22 23 even though I had actually tried doing it in my

24 testimony.

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1 ο. I just want to show you what Mr. Parcell said about the 2 critiques of the CAPM. 3 (Atty. Camerino handing book to the 4 witness.) 5 BY MR. CAMERINO: 6 Q. And, if you would read from Page 6-11, the bottom of 7 the page, and the rest of that paragraph. Should I read it? 8 Α. Yes, please. Go ahead. 9 Ο. 10 CHAIRMAN GETZ: Let's establish, and "read aloud"? 11 12 (Laughter.) 13 MR. CAMERINO: I thought he was reading 14 it first to himself, so he knew what was coming. But, yes, eventually aloud, please. Sorry. 15 BY MR. CAMERINO: 16 I could read it and ask you if I read it correctly, but 17 Ο. we might be slower. 18 19 Yes, I ended up reading the last two lines. Α. 20 Just read -- There's a paragraph where he discusses his Ο. 21 perspective on the critique of CAPM. Can you, again, I'd like to find where you want me to 22 Α. 23 read? Like me to read this and go onto the next page? 24 Q. Here.

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1 Α. Okay. I've read it. 2 Ο. I'd like you to read it out loud. 3 Α. Okay. Maybe I should move this a little bit. 4 MR. CAMERINO: I'm just explaining to 5 the witness that, when he speaks audibly, Mr. Patnaude б takes it down every time. 7 BY THE WITNESS: "In concluding this section, it is useful to recall an 8 Α. 9 observation by Rhyne", there is a reference, it's 1982, 23, then there's "many opponents of the CAPM are 10 demanding a greater degree of empirical and theoretical 11 12 verification for the model than can be provided from the other alternatives that are available for 13 14 estimating the cost of equity". Finally, Morin", again 1994, 71, "noted "Throughout out its tumultuous 15 history, the death of beta has been periodically 16 announce over the years, but has inevitably been 17 followed by its rebirth"." 18 19 BY MR. CAMERINO: Okay. So, all return on equity estimation 20 Ο. 21 methodologies have simplifying assumptions, right? 22 Α. Yes. 23 And, now I want to get to what some of the ones for DCF Q. 24 are, and just I'm not going to go through all of them. {DG 08-009} [Day II] {01-29-09}

1		But, first of all, DCF assumes that a shareholder buys
2		the stock to hold in perpetuity?
3	A.	That's correct.
4	Q.	And, that the only cash the investor ever receives is
5		from dividends?
6	A.	That is correct in its formulation, yes.
7	Q.	In the formulation that you're using?
8	A.	Even in the formulation that Mr. Moul uses, when he's
9		using DCF, that's correct.
10	Q.	Okay. If that assumption occurred, there would never
11		be any buyers or sellers of stock, would there, if the
12		stock was held in perpetuity?
13	A.	Can you first hold this?
14		(Witness handing book back to Atty.
15		Camerino.)
16		MR. CAMERINO: Sorry. Apologize.
17	BY I	THE WITNESS:
18	A.	Again, it is a model. So, while in reality, for
19		example, you know, we know the market-to-book ratio
20		changes, we know that the price-to-earning ratio
21		changes. And, all of that is kind of assumed constant
22		in this approach. We all know, in reality, they don't
23		remain constant, and people don't necessarily look at
24		income in perpetuity.
		$\int DC (08-009) [Day TI] \int (01-29-09)$

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1		But, when you are using different
2		approaches within DCF, and while each of them you're
3		really relying on this assumption that the growth rate
4		is constant and, you know, income comes in perpetuity,
5		you're not necessarily saying that, in reality, that's
6		how it's going to happen. You're really looking at
7		different measures to get a sense of what that cost of
8		equity might be, even if there were fluctuations, but
9		you're really sort of weighting different DCF estimates
10		to get a sense. That's what you're doing.
11	BY N	MR. CAMERINO:
12	Q.	Okay. But my question is, if the assumption that you
13		said exists actually held in reality, there wouldn't be
14		any buyers or sellers, right, because the stock would
15		be held in perpetuity?
16	A.	There might be new stocks out there.
17	Q.	Okay. Only if there's a new issuance. But, if we held
18		constant the number of shares, there wouldn't be any
19		buyers or sellers, there would be no market at all for
20		that stock?
21	A.	Well, again,
22	Q.	I just want to You can give an explanation. But, if
23		that assumption held true, there would
24	A.	Yes, if we're really sticking to assumption
		{DG 08-009} [Day II] {01-29-09}

1	Q.	We can only talk one at a time and I've got to finish
2		my question. If that assumption held true, there would
3		be no market at all for the stock, correct?
4	A.	Secondary markets, is that what you're talking about?
5	Q.	Once the investor owned the stock, they would hold it
б		in perpetuity, therefore there would be
7	Α.	Yes, that's correct.
8	Q.	Okay.
9	A.	I agree.
10		MR. CAMERINO: Can we go off the record
11	fo	r one second?
12		(Brief off-the-record discussion
13		ensued.)
14		CHAIRMAN GETZ: Okay. Back on the
15	re	cord.
16		MR. CAMERINO: Sorry.
17	BY M	R. CAMERINO:
18	Q.	So, that's that's one assumption that doesn't hold
19		true in reality, correct, about the investor holding
20	Α.	Yes, that's correct.
21	Q.	And, the model also assumes that investors discount
22		cash flows at the same rate over all future periods,
23		right?
24	A.	Every time you're using that approach for a specific
		{DG 08-009} [Day II] {01-29-09}

1		estimate, yes.
2	Q.	It essentially assumes a "steady state" in perpetuity?
3	A.	That's correct.
4	Q.	Okay. And, those assumptions are not consistent with
5		the actual market conditions that the Commission needs
б		to apply to determine cost of equity, correct?
7	A.	Can you repeat the last question again please?
8	Q.	The assumptions that we were talking about
9	A.	Uh-huh.
10	Q.	are not consistent with the actual conditions
11		existing in the marketplace, in which the for which
12		the Commission is trying to determine a cost of equity?
13	A.	That's correct. I already said that.
14	Q.	Okay. And, the model uses a single growth rate, which,
15		in both your case, and I think Mr. Moul's, is a five
16		year growth rate?
17	A.	Because that's the data that's available out there.
18	Q.	And, you use that as a proxy, instead of a perpetual
19		growth rate, correct?
20	A.	That is correct. We use it as a proxy. But can I I
21		think I went over this a little while ago, but I think
22		it's important to understand that, even though we are
23		assuming that, when we measure the cost of equity using
24		DCF, what I'm saying is, we all know in reality things
		$\{DG \ 08-009\} \ [Day \ II] \ \{01-29-09\}$

1	are not in "steady state". So, what you're doing here,
2	as someone who is calculating this, you're trying to
3	figure what kind of growth in perpetuity can sort of
4	handle, you know, the variations in the income streams
5	or people selling stocks, and then using the money to
6	buy other stocks, and, again, getting dividends out of
7	it, all that. That, in reality, while true, it won't
8	give you this constant growth, by using the DCF
9	approach and trying to give weightages to different
10	ways of implementing it, I'm really trying to recognize
11	the fact of reality things do move around. And, yet, I
12	am using this approach to get a sense of what that cost
13	of equity might be if there was sort of, you know,
14	movement, which, again, this is just a model.
15	MR. CAMERINO: And, just for the
16	Chairman's information, I've got a short line of
17	questioning on this issue of the growth rate. And, if you
18	wanted to take a break, that's a fine time, or I can keep
19	going after that, whatever your pleasure is.
20	CHAIRMAN GETZ: Well, how much beyond
21	that?
22	MR. CAMERINO: I've got a fair amount
23	still.
24	CHAIRMAN GETZ: Are you expecting
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1 another hour or cross or --2 MR. CAMERINO: I'm sure, yes. CHAIRMAN GETZ: Okay. Let's finish up 3 4 with this next line, and then we'll take a recess. 5 MR. CAMERINO: Okay. 6 BY MR. CAMERINO: 7 Ο. So, I was asking about the problem that you use a five 8 year growth rate, projected growth rate, when you're 9 actually trying to project a perpetual growth rate. And, that's a problem that you, as an analyst or an 10 11 economist, has to deal with, correct? 12 Α. That's correct. Q. And, the Staff, in recent years, has used a number of 13 14 different ways, the Staff of this Commission, to try to 15 address that concern, is that correct? That is correct. Even I have used different 16 Α. 17 approaches. You yourself? 18 Q. 19 Α. Yes. Okay. And, you responded to a data request that 20 ο. 21 summarized at least those that you were aware of, do you recall that? 22 23 Α. Yes. Okay. And, I'm going to show you your response to the 24 Q. {DG 08-009} [Day II] {01-29-09}

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[WITNESS: Chattopadhyay]
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1 Company's Data Request 1-74. 2 Α. Uh-huh. 3 (Atty. Camerino distributing documents.) 4 MR. CAMERINO: And ask that that be 5 marked with the next exhibit number. б CHAIRMAN GETZ: Okay. We'll mark for 7 identification as "Exhibit 52" Dr. Chattopadhyay's 8 response to Data Request 1-74. 9 (The document, as described, was 10 herewith marked as Exhibit 52 for 11 identification.) BY MR. CAMERINO: 12 And, I'm not going to take you through all of those, 13 Q. 14 Dr. Chattopadhyay. But at one time the Staff used a 15 Single-Stage DCF model, correct? That's correct. 16 Α. And, by "Single-Stage", we mean just looking at one 17 Ο. period of growth projections, one set of growth 18 19 projections to determine G, correct? 20 Correct, but using different growth estimates perhaps. Α. 21 Ο. Growth estimates, thank you. And averaging or using some weightages, you know, 22 Α. 23 different weights. And, I think the word "estimate" is a good 24 Q. {DG 08-009} [Day II] {01-29-09}

1		clarification, because at one time the Staff used
2		historical information and averaged that with projected
3		information, forecasted, correct?
4	Α.	That is correct.
5	Q.	And, then, the Staff switched to a Three-Stage DCF,
6		correct?
7	A.	I think that's correct.
8	Q.	And, it used different inputs to determine what should
9		go into each of the three stages, correct?
10	A.	That's correct.
11	Q.	And, then, the Staff went back to a Single-Stage DCF,
12		right?
13	A.	That's correct.
14	Q.	And, you've made other adjustments in this case and
15		your last case, correct?
16	A.	That is correct.
17	Q.	And, that's not because you don't like the outcome of
18		the model, but because there's a lot of judgment that
19		you have to use in which data to draw on?
20	A.	Which What to draw again, sorry?
21	Q.	Which data, you're using a lot of judgment to determine
22		which data to draw on to calculate G?
23	A.	That's correct. Yes.
24	Q.	And, different Commission witnesses have drawn

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[WITNESS: Chattopadhyay]
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1 different judgments, haven't they? 2 Α. Yes. True. 3 MR. CAMERINO: Okay. That's all I have 4 on that line. 5 CHAIRMAN GETZ: Okay. Let's take about б a ten minute recess at this point. 7 (Whereupon a recess was taken at 3:24 8 p.m. and the hearing reconvened at 3:47 9 p.m.) MR. CAMERINO: Just one procedural thing 10 11 that we'll address with the witness. As I indicated, we are really focused on trying to get this done today, and I 12 do have quite a few questions left for Dr. Chattopadhyay. 13 14 But our hope is that we can make our way through the issues without having anything additional to deal with the 15 rebuttal by Dr. Chattopadhyay. And, so, what we'd like to 16 do is put Mr. Moul up to answer a half dozen or so 17 questions in response to what Dr. Chattopadhyay said on 18 19 his rebuttal. The reason for that is he needs to leave town a little later today. And, it would be problematic, 20 21 I think we'd have to bring him back on another day if we waited to the end of the cross I was doing. So, I've 22 23 asked the parties, I think they're agreeable to that, if it would work for the Commission? 24

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CHAIRMAN GETZ: Yes, that's fine. 1 2 MR. CAMERINO: Thank you. And, I 3 apologize for the jumping around on witnesses. So, the 4 Company recalls Paul Moul. And, my assumption would be 5 that, if the Staff or other parties have follow-up 6 questions for Mr. Moul, we would do that right now, and 7 then he would be excused. (Whereupon Paul R. Moul was recalled to 8 9 the stand, having been previously sworn.) 10 11 MR. CAMERINO: All right. Mr. Moul, just a reminder, you're still under oath. And, I'm just 12 13 going to ask you some follow-ups to questions that Dr. 14 Chattopadhyay responded to this morning. PAUL R. MOUL, Previously sworn. 15 REBUTTAL DIRECT EXAMINATION 16 BY MR. CAMERINO: 17 Do you recall when he said that the yield over the last 18 Q. five weeks for A-rated utility bonds is "5.95 percent"? 19 Yes, I recall that. 20 Α. 21 ο. Have you had a chance to check that number? Yes. I have checked the latest yields published by 22 Α. 23 Moody's Investor Service, which is the generally accepted index of A-rated public utility bonds. And, 24 {DG 08-009} [Day II] {01-29-09}

1	what I have discovered is that the average yield in the
2	month of December 2008 was 6.52 percent. The range for
3	the past 12 months was a low of 6.21 percent, to a high
4	of 7.60 percent. And, that the most recent yield I had
5	before I left to come up here, which was last Friday,
6	the 23rd of January, was also 6.52 percent. So, the
7	yields on public utility bonds are considerably above
8	the rate he cited.
9	Q. And, I don't have a copy of what you're referring to,
10	but you looked like you were referring to a document.
11	Could you just indicate what that is?
12	A. Yes. This is a printout from the Internet, it's
13	"CreditTrends.com". It comes out for Moody's Investor
14	Service. And, if you would like, you can have this,
15	make a copy of it, whatever.
16	CHAIRMAN GETZ: Why don't we reserve an
17	exhibit for that. We'll reserve Exhibit Number 53.
18	(Exhibit 53 reserved.)
19	MR. CAMERINO: And, just as a courtesy,
20	I think we should provide that copy to the Staff counsel.
21	BY MR. CAMERINO:
22	Q. All right. The next question I want to ask you relates
23	to Dr. Chattopadhyay's statement that "the stock prices
24	already reflect the volatility that's in the
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1		marketplace." Do you recall that testimony?
2	Α.	Yes, I do.
3	Q.	And, what is your response to that?
4	Α.	Well, I don't see how they can. He's provided us with
5		two sets of stock prices. One in his original exhibit,
6		which I don't have the designation for
7		identification for, and also in Exhibit 51. And, over
8		a relatively short time frame of a couple months, we
9		see that the average stock price for six out of the
10		seven companies in his group declined. And, in fact,
11		the dividend yields went up because of that. And, both
12		with regard to the decline in the stock prices for
13		public utility stocks, in particular, the companies
14		that comprise his proxy group, as well as a lack of any
15		recognition of volatility in the other components of
16		the DCF, namely, the growth components, I don't see how
17		the DCF model deals with volatility.
18	Q.	And, then, do you recall a question to him from
19		Attorney Hatfield, or it might have been Attorney
20		Hollenberg, regarding whether a company that has
21		100 percent of its revenues from state regulated
22		business was less risky?
23	A.	Yes, I recall that question.
24	Q.	And, is there information filed in this case that would
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1		indicate that that is not the case?
2	Α.	Yes, and I think it's quite obvious. If you go back, I
3		don't have I didn't bring it up here to the stand
4		with me. But, if you go back to that particular
5		schedule that had the percentage of state regulated
б		asset no.
7	Q.	That one.
8	Α.	state regulated assets for the various components of
9		the proxy group, one of the companies, Piedmont Natural
10		Gas, had 100 percent of its assets devoted to regulated
11		state regulated public utility activities.
12	Q.	Just to clarify the record, is that the document?
13	Α.	Yes. Uh-huh.
14	Q.	It would be Exhibit 44.
15	Α.	Okay. Right. So, on 44, you see that, of all the
16		companies in the proxy group, the only one that has
17		100 percent state regulated assets is Piedmont. So,
18		then, if we look at the betas, in either my Attachment
19		PRM-27, would show that, for Piedmont, its beta is
20		0.80, as compared to the group average of 0.81, or, in
21		Staff's updated Exhibit 51, on Attachment XII, there
22		you see a beta for Piedmont of 0.7, and a group average
23		beta of 0.69. You can see that, in both instances, the
24		beta of Piedmont, which is 100 percent state regulated,
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1		and the average beta for the proxy group are virtually
2		the same. I find the risk differential between
3		Piedmont, which is 100 percent state regulated, and the
4		proxy group average is indistinguishable from a risk
5		perspective.
б	Q.	And, then, lastly, and also on a question from the
7		Consumer Advocate's Office, there was a discussion
8		about, and I'm paraphrasing, because I don't recall the
9		exact statement, but I think Dr. Chattopadhyay said
10		that "The companies in the peer group might only have
11		one analyst", similar to your criticism of the Value
12		Line growth projections. And, what information is
13		there that you have regarding that?
14	A.	Yes. One of the problems we were struggling with was
15		the fact that the Value Line forecast was from a single
16		analyst. And, if I heard and understood his testimony
17		properly, I was left with the impression, and maybe
18		erroneously so, but I was left with the impression that
19		he believed that, in the instances of the analysts'
20		consensus forecasts, that they, too, might have been
21		derived from a single analyst. And, if you look at the
22		data attached to our response to Staff Interrogatory
23		4-22, you see that, I'm just looking at the first sheet
24		that we handed out, that the number of analysts
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1	contributing to AGL, well, it varies from quarter to
2	quarter, but as many as eight analysts are contributing
3	to the consensus forecast in the case of AGL.
4	We flip over to Atmos, again, it varies
5	from quarter to quarter, but up to nine analysts
б	contributed to Atmos. So, we could, you know, we could
7	go through them all. But what you find is, when you
8	look at the analyst forecasts from the consensus, from
9	either First Call, IBES, First Call, or from the Zacks,
10	they are, in fact, from a panel of analysts. In other
11	words, what they do is they survey all the analysts
12	that are covering a particular stock and assemble what
13	the forecasts are, and then they present a consensus.
14	So, it is from, generally speaking, from more than one,
15	just one analyst.
16	MR. CAMERINO: That concludes my
17	questioning for Mr. Moul.
18	CHAIRMAN GETZ: Ms. Hatfield?
19	MS. HATFIELD: Thank you, Mr. Chairman.
20	No questions.
21	CHAIRMAN GETZ: Mr. Damon?
22	MR. DAMON: Yes, I have a few questions.
23	REBUTTAL CROSS-EXAMINATION
24	BY MR. DAMON:
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1	Q.	Mr. Moul, in your direct testimony, I believe it's on
2		Page 13, and following pages, up to 16, you describe
3		what, in your view, are the important categories of
4		relative risk. Do you remember that?
5	Α.	Yes. I didn't bring that copy with me to the stand,
6		but I know exactly what you're speaking about.
7	Q.	Okay. And, that data is financial data, right?
8	Α.	Correct.
9	Q.	So, there's nothing in there about how hard it is to
10		dig pipes in the ground in New Hampshire, is there?
11	Α.	No. What I did was an historical analysis of the
12		financial fundamentals in each of the companies.
13		MR. CAMERINO: And, I just want to make
14	su	are, because I am pretty focused on getting us done
15	to	oday. I thought this cross is supposed to be just on the
16	li	mited issues that were just testified to in response to
17	tł	ne rebuttal from Dr. Chattopadhyay?
18		CHAIRMAN GETZ: Mr. Damon, is there
19	ag	greement on that?
20		MR. DAMON: I will do whatever the
21	Co	mmission wants. I'll have just a few more questions, a
22	CC	ouple on some of the things he's just said, and maybe one
23	or	two more on other things, but
24		CHAIRMAN GETZ: Well, it seems like the
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1 scope of the inquiry here should be about the testimony 2 just given. 3 MR. DAMON: Okay. I can do that. 4 BY MR. DAMON: 5 Ο. What information did you get about EnergyNorth? How 6 much of it -- no, I take that back. You did not just 7 testify about that. Sorry. Okay. You gave us some figures on Treasury yields. And, you were coming up 8 9 with a number of 6.5 percent, the latest yields, right? And, I would ask you to look on this sheet and tell me 10 11 what column that comes from? There you go. You had read the December number, and 12 Α. then the latest one was 6.52. 13 14 And, what is the number for January '09? Ο. 15 January, it was 6.35, trending up in the last week, Α. back up to 6.52. 16 Okay. But it's 6.35? 17 Ο. 18 So far, in January, with a trend up. Α. 19 Ο. Okay. And, these are data on the 20 year Treasury bonds, right? 20 21 Α. Well, let me look. There should be a definition on 22 there somewhere. "Seasoned Bonds with Remaining 23 Maturities of at Least 20 Years". So, they would be 20 24 year plus.

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1	Q.	So, you're comparing those numbers. I think Dr.
2		Chattopadhyay had talked about a 10 year bond, but
3		you're talking about a different
4	Α.	Well, no, I don't think he talked about a 10 year. He
5		talked a lot, as I remember, he talked a lot about 10
б		year yields on 10 year Treasury notes.
7	Q.	Okay.
8	Α.	But it wasn't clear to me that ten years was the time
9		frame on the public utility yield, but I could be wrong
10		on that.
11	Q.	Okay. Turning to Page 2, would you summarize what the
12		data is there on the top of that page?
13	Α.	Oh, this is the spreads over Treasuries.
14	Q.	Okay. And, will you give the spreads over the
15		Treasuries in the last column on the right.
16	Α.	For the month of December 2008, it was "366.60" basis
17		points.
18	Q.	And, can you give the number in the next most in the
19		next column to that, for January?
20	Α.	Sure. That would be January to date, "333.22" basis
21		points.
22		MR. DAMON: Oh. That's not my piece of
23	pa	aper.
24		MR. CAMERINO: Yes. For my
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understanding, did we give this an exhibit number? 1 2 CHAIRMAN GETZ: Yes, Exhibit 53. I 3 understand the Clerk has gotten a copy? 4 MS. DENO: No. 5 MR. CAMERINO: No. But I think what we б need to do is provide copies to everyone. So, we'll do 7 that after the hearing today. MR. DAMON: Could I have a moment? It's 8 been a busy afternoon, a busy day, and I want to make 9 10 sure. 11 (Atty. Damon conferring with PUC Staff.) MR. DAMON: Thank you. No further 12 13 questions. 14 CMSR. BELOW: Yes. BY CMSR. BELOW: 15 I think you just made a point that the beta for 16 ο. 17 Piedmont Natural Gas wasn't really materially different from the average for your gas group, citing to Page 38 18 19 of your Exhibit 33, is that correct? Yes, that's right, Commissioner. 20 Α. 21 ο. Okay. And, then, you also cited to Attachment XII of Exhibit 51. 22 23 Α. Yes, sir. Is that correct? 24 Q. {DG 08-009} [Day II] {01-29-09}

1 A. Uh-huh.

2 Ο. In Attachment XII, though, we can see that the Piedmont 3 Natural Gas, which, from Exhibit 43 [44?], we know has 4 100 percent state regulated revenues, is just 1/100th 5 different than the proxy average. This is actually a 6 different group. I mean, there's WGL Holdings, Inc. 7 and Northwest Natural Gas were part of your proxy group 8 as well, where we know the state regulated revenues, but, for the rest of them, we actually don't know, in 9 the record we don't have any information, do we, that 10 you know of? 11

In the record -- well, let me see if I can respond this 12 Α. way. I provided several bits of information on state 13 14 regulated versus other operations. And, in the interrogatory I answered and they put in the record, it 15 was just for my group. I think, but I'm not sure, that 16 I was also asked another interrogatory for all of the 17 gas companies in Value Line. And, I think I provided 18 19 that, but I don't think I've seen that circulating around in the last two days as an exhibit. But I 20 21 thought I provided that. I'd have to check, check to make sure that's true. I mean, if I've already 22 23 answered it --

Q. Well, I'm just trying to understand what meaning we can {DG 08-009} [Day II] {01-29-09}

1		give to the comparison with Attachment XII, not knowing
2		what the nature of the rest of the group is.
3	Α.	Oh, I see. Sure. Sure. Because Dr. Chattopadhyay, we
4		each had seven companies. He took three of mine out
5		and added three new ones. So, in the exhibit that we
6		have been talking about earlier today, they were my
7		companies. So, he's got three companies that weren't
8		in that exhibit.
9	Q.	Or perhaps four?
10	Α.	Whatever. There were substitutes. Whether it's three
11		or four, I don't really recall. If you let us, we'll
12		see if I've answered an interrogatory that would cover
13		those additional companies, and maybe we could
14		CMSR. BELOW: Yes, if it exists.
15		CHAIRMAN GETZ: Yes. Let's reserve
16	Ex	hibit 54.
17		(Exhibit 54 reserved.)
18		CHAIRMAN GETZ: Mr. Camerino, if you can
19	ta	ke a look at the data responses by Mr. Moul, and, if
20	th	at information is available, then submit it.
21		MR. CAMERINO: Okay. We'll do that.
22		WITNESS MOUL: I thought I did that,
23	Co	mmissioner, but I could be wrong on that.
24		CMSR. BELOW: Okay.
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1 CHAIRMAN GETZ: Okay. Mr. Camerino, 2 anything in redirect? MR. CAMERINO: No thank you. 3 4 CHAIRMAN GETZ: Okay. Then, the witness 5 is excused. Thank you. б WITNESS MOUL: You're welcome. 7 MR. CAMERINO: Thank you for the Bench's and the parties' indulgence. We have -- Mr. Wyatt was 8 good enough to make copies of that Exhibit 53. 9 10 (Reserved Exhibit No. 53 provided to all parties and the Commission and was 11 marked for identification as such.) 12 13 MR. CAMERINO: I think we're prepared to 14 proceed with Dr. Chattopadhyay. CHAIRMAN GETZ: Okay. We will resume 15 with the cross-examination of Dr. Chattopadhyay by Mr. 16 17 Camerino. 18 MR. CAMERINO: Thank you. 19 CROSS-EXAMINATION (resumed) BY MR. CAMERINO: 20 21 ο. Dr. Chattopadhyay, you state in a number of places in your testimony that "return on equity is" -- that "the 22 23 cost of equity is greatly influenced by the allowed rate of return" -- or, "the return on equity", I'm 24 {DG 08-009} [Day II] {01-29-09}

1		sorry, "is greatly influenced by the allowed rate of
2		return for a regulated entity." Does that sound
3		familiar?
4	A.	The expected rate of return on equity is I think
5		that's what I side, is influenced by the allowed rate
6		of return.
7	Q.	Okay. And, is it fair to say that, if investors expect
8		a particular level of return from a group of companies,
9		they are going to require a similar level of return to
10		invest in another company of similar risk?
11	A.	The expected return that I'm talking about here is
12		really an accounting return. So, it's if you're
13		talking about accounting return, you know, then what
14		you said is correct. They would expect the same kind
15		of returns.
16	Q.	Well, just to be clear. If an investor sees If the
17		financial information tells you that investors expect
18		to earn a certain level from of return from
19		companies in a certain industry, the return that they
20		can get from yet another company, that they're willing
21		to accept from another company, is going to be
22		influenced by that, won't it? Their decision to invest
23		in that other company in the same industry will be
24		influenced by what they think they can earn in the
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1 first set of companies, right? That's the opportunity 2 cost concept. 3 No, that is -- that is the point I'm trying to make. Α. 4 The return on equity that you expect, being an 5 accounting return, you might have some expectation of 6 what you're going to make for several industries --7 sorry, several companies in a specific industry. But 8 the cost of equity is really based on that opportunity cost concept. So, what might happen is, for Company A, 9 you're expected return may, relative to the cost of 10 equity, that is the "opportunity cost", may be -- may 11 12 be different, I'm talking about the difference, than say another company's expected return, compared to the 13 14 cost of equity. So, it's -- those things also play into their, you know, their decisions about which 15 16 company to invest in. If an investor thinks they can earn more from a gas 17 ο. company in Indiana, better return from a gas company in 18 19 Indiana, or Massachusetts, or wherever, than they can from a gas company in New York, aren't they going to --20 21 the capital is going to be attracted to the place where they think they can get the best return, right? 22 23 Again, if you're talking about opportunity cost, --Α. 24 Q. Yes.

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1	A.	I agree. But what I'm saying is, the expected
2		returns are accounting returns. And, sometimes,
3		depending on how the company is doing and how you see
4		things are over the next five years, say, as an
5		example, your expected returns really is an accounting
6		return. But what you what you need or require as a
7		minimum, that number may compare differently with this
8		expected return across different companies. That's
9		what I'm talking about. And, so,
10	Q.	Could I get some clarification. When you use the word
11		"accounting return",
12	Α.	Yes.
13	Q.	what do you mean by that?
14	Α.	That is influenced by several factors. How you expect
15		the Company is going to do business-wise, what the
16		allowed rate of return was, etcetera. So, it's not
17		it is not a good measure of the return, the cost of
18		equity.
19	Q.	I'm not asking as a measurement of the cost of equity.
20		What an investor expects to be able to earn from a set
21		of comparable companies will influence whether they are
22		willing to invest in another company of similar risk,
23		will it not? They're going to compare what they
24	Α.	Similar risk, that's
		$\left[ DC 09 000 \right] \left[ D_{23} TI \right] \left[ 01 20 00 \right]$

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1 ο. Okay. 2 CHAIRMAN GETZ: Yes, let's be careful, 3 having a break between the speakers. 4 WITNESS CHATTOPADHYAY: Can you repeat 5 the question now, I guess, and I'll respond to it? 6 MR. CAMERINO: Okay. 7 BY MR. CAMERINO: 8 What an investor expects to earn as a return from a Q. 9 group of similar companies, of similar risk, will influence what they demand or expect as a return in 10 another company of similar risk, otherwise they won't 11 12 invest in that other company, correct? The way you stated it now, --13 Α. 14 I didn't intend to change. Ο. -- I think you --15 Α. Maybe we should read the question. 16 ο. I think you have changed, at least in my mind, where 17 Α. you're trying to get at. What I'm saying is, the 18 19 expected returns are really accounting concepts. And, 20 now, when you look at the expected returns across 21 several companies, and you compare it with the cost of -- true cost of equity, which is the opportunity cost 22 23 of equity, if you're saying that that is same across all companies, and there's a company that gives me a 24 {DG 08-009} [Day II] {01-29-09}

1		higher return, you would likely invest in that company.
2		That's true.
3	Q.	Okay. Since I've confused myself, I'm going to move
4		on. Investors are aware, are they not, that the
5		anticipated growth in dividends, whatever level of
6		dividend growth they expect, is dependent ultimately on
7		whether there are earnings to support that, correct?
8	Α.	That is correct.
9	Q.	In the long run, dividends can't grow any faster than
10		earnings, correct?
11	Α.	That is correct.
12	Q.	And, if dividends during shorter or longer periods of
13		time grow at a rate different from earnings, it's just
14		because the payout ratio or the retention rate is going
15		up or down, right? If they grow If dividends grow
16		at a different rate from earnings,
17	Α.	That is correct.
18	Q.	it's simply reflecting that the company is paying
19		out more or less of the dividends in any given point in
20		time?
21	Α.	That is correct.
22	Q.	That change in the retention rate or payout ratio,
23		that's a discretionary determination by management,
24		isn't it? By the Board?
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1 Α. Sure. Yes. 2 Ο. It's based on lots of factors. Capital, the need to 3 invest new capital, the concern that how the market --4 the concern about retaining cash or being able to 5 dividend up cash to shareholders. There are lots of 6 discretionary judgments that go into that? 7 Α. That's correct. 8 But, ultimately, the Board cannot grow dividends at a Q. 9 rate that's higher than the earnings per share increase, correct? 10 That's correct. 11 Α. 12 Ο. And, isn't it fair to say that, when investors are valuing a stock and deciding what that stock is worth, 13 14 the primary factor that they look at is earnings growth, expected earnings growth? 15 I don't agree with that. It depends on what kind of 16 Α. industry you're talking about. In the utilities 17 18 industries, investors, their returns largely come from 19 dividends growth. Historically, it's been true that, you know, over, say, a ten year horizon, it tends to be 20 21 the case that the dividend -- dividends really form the chunk of the returns that they make. So, it's not --22 23 it's like, it's not solely or even predominantly 24 determined by the price appreciation, that is the {DG 08-009} [Day II] {01-29-09}

1		capital gains.
2	Q.	Well, even for a utility, if investors saw a dividend
3		growth rate that was higher than their earnings growth
4		rate they expected, that would cause them considerable
5		concern, wouldn't it, because they would know that
б		wasn't sustainable?
7	Α.	Well, a while ago we sort of talked about that the
8		dividend growth rate cannot be more than the earnings
9		growth rate. So, that's this assumption that you're
10		making, you know, obviously, is counter to what I just
11		said. The dividend growth rate, it cannot keep on
12		increasing relative to the earnings to such a level
13		that you really cannot provide that anymore. Sorry.
14		Let me restate this.
15		If the dividend growth was higher than
16		the earnings growth rate, and it kept on going like
17		that, ultimately, because your dividends have to come
18		from the earnings, this scenario is not sustainable.
19	Q.	Okay. I take it you would agree that, when they're
20		available, it's better if you have forecasts from
21		multiple analysts, rather than a single analyst? That
22		gives you a better
23	A.	Multiple sources are, yes.
24	Q.	Multiple sources are better?

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1 Α. Yes. 2 Ο. Okay. Do you know how many analysts Zacks reports? 3 Α. It depends. I guess it might depend on the specific 4 company you're talking about. I don't know. 5 Q. Okay. Now, in doing your analysis for your DCF, you 6 removed what you called "outliers", right? 7 Α. That is correct. And, there were two outliers that you removed, right? 8 Q. 9 I think we're looking at two companies that you removed. One --10 That is correct, yes. 11 Α. Okay. They were both on the high side, right? 12 Ο. 13 Α. Yes. 14 Your method for removing outliers, it didn't remove any Ο. 15 outliers on the low side, did it? Because there weren't any companies that had DCF ROE 16 Α. 17 estimates that were below the average minus two times standard deviation. 18 19 So, your process of removing outliers only had an Ο. 20 impact on one side of the scale? 21 Α. Had it turned out what the numbers were, yes, that's 22 correct. 23 I want to ask you a few -- some questions about Q. development of your peer group. What criteria did you 24 {DG 08-009} [Day II] {01-29-09}

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[WITNESS: Chattopadhyay]
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1		use to decide whether to include companies in your peer
2		group?
3	A.	They are the same criteria that Mr. Moul used, except
4		I'm going to now talk about what changes I have made.
5		I had, instead of using 60 percent as the cut-off for
6		the percentage of total assets that are regulated
7		assets, I have used 85 percent.
8	Q.	How did you come up sorry, go ahead. I didn't mean
9		to interrupt.
10	Α.	And, I have also not accepted the criteria that
11		Mr. Moul had included, which is that only those
12		companies that have decoupling features will be
13		included. I had asked him in a follow-up question
14		whether National Grid New Hampshire has that process or
15		procedure, and he replied "No, it doesn't." And, so, I
16		didn't think it was reasonable to have that kind of
17		criteria to screen out the peer group the proxy
18		companies.
19	Q.	So, your decision to change the peer group that's based
20		on 85 percent regulated assets,
21	Α.	Yes.
22	Q.	that's another judgment call you made?
23	Α.	Yes, absolutely.
24	Q.	I want to show you I'll show your counsel first, and
		{DG 08-009} [Day II] {01-29-09}

1		I'm going to hand out a series of these, but I want to
2		show you cutoff points similar to that that Staff has
3		used in prior cost of equity testimony. The first one
4		I'm handing you is testimony from Ms. Sirois, in docket
5		DE 03-200, a PSNH delivery rate case.
6	Α.	Uh-huh.
7	Q.	And, I want to direct your attention to Page what I
8		did was I copied the cover sheet of her testimony, and
9		the relevant pages regarding the cutoff?
10	Α.	Okay.
11	Q.	And, I just want you to confirm that, on Page 9 of
12		this,
13	Α.	I don't have Page 9.
14	Q.	Did I Maybe I gave you the wrong one. You know,
15		what, this I'm going to use this for something else.
16		I'm just going to show you her testimony in that case
17		to move this along, I apologize. One second. I just
18		want you to confirm for me that, in that case, she used
19		a cutoff of 70 percent?
20	Α.	Cutoff from what?
21	Q.	Well, I'm go to show you that. I don't want to draw
22		conclusions for you. What she said is, for her peer
23		group, "the members must have at least 70 percent of
24		operational revenue from regulated electric
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1 activities."

2 A. That is correct.

Q. Okay. And, then, in docket DE 04-177, which was PSNH's Energy Service rates, in her testimony she took the position, and you tell us what her position was in that case, as to what level of regulated revenues companies should have to be in the sample?

8 A. "Companies in my sample must have at least 60 percent
9 of their revenues from regulated electric operations."
10 Q. And, then, in DE 05-178, what was the Staff's position
11 on the percentage of regulated revenues that need to
12 qualify you for the peer group?

13 A. "Companies in my sample must have at least 70 percent
14 of their revenues from regulated electric operations."
15 Q. And, then, in your --

16 MR. DAMON: For the record, whose 17 testimony was that?

18 MR. CAMERINO: That would be Maureen19 Sirois.

20 BY MR. CAMERINO:

21 Q. And, then, in your testimony in docket DE 06-028,

22 Public Service Company of New Hampshire, what was your23 position in that case?

24 A. "I include only those companies that derive greater {DG 08-009} [Day II] {01-29-09}

1 than 70 percent of their revenues from regulated 2 electric business." So, in those four rate cases, the Staff's position was 3 Ο. 4 70, percent, 60 percent, 70 percent, and 70 percent of 5 regulated revenues in order to qualify? 6 Α. That's correct. 7 ο. So, it's a matter of considerable judgment, isn't it, as to what that cutoff point should be? 8 You haven't pointed out that the cutoff that I had was 9 Α. the regulated assets. I'm not talking about revenues 10 in this testimony. And, when you're looking at apples 11 12 and oranges, at one level you're looking at regulated revenues, and what I have used here is regulated 13 assets. They're two different concepts. And, the 14 regulated assets was, again, one of the criteria that 15 Mr. Moul had included. I accepted that criteria. 16 But I have noted that there is a difference between looking 17 18 at regulated revenues and regulated assets. If you 19 look at the percentages even for the attachment that -just a second. Give me just a minute. 20 21 Ο. Are you looking for a particular document that I can help you with? 22 23 Okay. For example, when you look at the percentages of Α. 24 assets, as opposed to percentages of revenues -- these {DG 08-009} [Day II] {01-29-09}

1		numbers are for different years. I'm going to again go
2		back to the document, because I got a corrected
3		response from Mr. Moul later. And, can we can we
4		put this in the exhibit? It might be there already.
5		But the point I'm making is this. That,
6		for example, if you look at the year 2007, the average
7		state regulated revenues, if you that number is
8		around, say, at least 15 percentage points lower than
9		the average that comes out if you use instead the state
10		regulated assets as the criteria. So, you're really,
11		even though the number 60 percent and 70 percent were
12		being used when we were talking about regulated
13		revenues, that doesn't mean that that number has to be
14		also applied in the case of regulated assets. They're
15		two different concepts.
16	Q.	Okay. There are other reasons you excluded companies
17		from Mr. Moul's peer group. You excluded You made
18		changes because you said that National Grid New
19		Hampshire doesn't have a decoupling mechanism, it
20		doesn't have weather normalization, and so made some
21		changes on that basis, correct?
22	Α.	Yes. Because he had included them, included his
23		companies based on that being one of the criteria.
24	Q.	Okay.

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1 Α. And, that was definitely not true for National Grid New 2 Hampshire. 3 What's wrong with including companies -- only companies Ο. 4 that have revenue decoupling and weather normalization? 5 Α. It doesn't reflect one of the basic realities of 6 National Grid New Hampshire. I mean, it doesn't have 7 that mechanism. 8 Q. Well, and the companies that have that mechanism, is it 9 your position that they have less risk because they have that mechanism? 10 There are other factors that go into it. So, when 11 Α. 12 you're trying to take out some companies that don't have those features, and include only the others, 13 14 you're also looking at factors that might be true for the preferred proxy that Mr. Moul created, which is 15 really not comparable with the -- with the situation 16 that National Grid New Hampshire faces, so --17 I'm not understanding what you're saying. So, let me 18 Q. 19 try and focus it in. We're trying to get companies of similar risk, correct? 20 21 Α. Yes. So, we move companies in or out of the peer group 22 Ο. 23 because their risk is not the same as National Grid New 24 Hampshire, right?

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1	Α.	That's correct.
2	Q.	You removed companies, in part, because you said "they
3		have revenue decoupling, they have revenue
4		normalization, that makes them not similar in risk to
5		National Grid New Hampshire", correct?
б	A.	Because, again, what I'm saying is, those companies may
7		have other features that do not compare with the
8		National Grid New Hampshire. And, by just arbitrarily
9		using that criteria, which doesn't even apply to
10		National Grid New Hampshire, you're really not creating
11		an appropriate proxy.
12	Q.	That was the reason you removed them, right?
13	A.	Yes.
14	Q.	Because they So, I assume the reason is somehow
15		related to risk, otherwise there would be no reason to
16		remove them, right?
17	Α.	That is not the reason, if you're telling me that I was
18		looking at specifically only risk, then that is not a
19		correct statement. It's just the two proxies here, the
20		one that Mr. Moul uses, as opposed to what I use, one
21		of them is using companies that have only decoupling
22		that have decoupling features. And, you know, in that
23		process, you're really kind of saying that National
24		Grid also has the same kind of feature, which it
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didn't. So, that's why I did it. 1 2 Ο. Well, there are lots of differences between these 3 companies, right? 4 Α. Sure. But --5 Q. Do you know which of them reconciling mechanisms for 6 OPEBs or pensions or other types of reconciling 7 mechanisms? Did you look at that? 8 Α. I don't recall exactly which one had it or not, but at 9 some point I may have at least cursorily looked at it. But you're not -- you're not really getting to the 10 point that I'm trying to state here. The point is, 11 12 National Grid New Hampshire doesn't have that feature. So, I just, when he gave me the list of companies that 13 14 had this and included that as one of the criteria, I looked at it and said "Okay, National Grid didn't have 15 it." So, that's the reason I didn't use it. 16 So, you were making changes in the peer group even for 17 Ο. reasons that have nothing to do with comparable risk? 18 19 That particular criteria may be continuously, you know, Α. driven by my consideration for risk. I just don't buy 20 21 that National Grid New Hampshire has that feature. So, I just, you know, I didn't think that criteria was 22 23 appropriate. The companies in the peer group, they're all 24 Q.

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1		
1		significantly larger than National Grid New Hampshire,
2		right?
3	Α.	That is true.
4	Q.	And, many of them do, maybe all of them, do business in
5		multiple jurisdictions, right?
6	Α.	Yes, that is correct.
7	Q.	And, their load, and I think, based on your answers
8		earlier today, you may not know the answers to these,
9		so let me must confirm. You don't know whether their
10		load profiles are significantly less weather-sensitive,
11		what their pipeline situation is, in terms of where
12		they are on the pipeline or operational issues and that
13		type of thing?
14	Α.	I did not get into that level of specifics.
15	Q.	So, you're when you said in your testimony that you
16		were "being conservative, if anything," by picking this
17		peer group, you really don't know how the risk of those
18		companies compares to National Grid New Hampshire, do
19		you?
20	Α.	When I conducted the examination of how the New
21		Hampshire economy compares with the jurisdictions that
22		the jurisdictions where the other companies are that
23		were in my proxy, I was able to conclude that the
24		economic situation in New Hampshire was relatively
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1		better than the other situations. I had also looked at
2		things like what is the equity-to-debt ratio of
3		National Grid New Hampshire, and I looked at what that
4		ratio was for the proxy, I have also, if not all of the
5		criteria that Mr. Moul had used in his listing of the
6		risks, I had looked into, you know, the operating
7		ratios, I've looked into the internal generation of
8		funds. And, I found that the contrast that he was
9		showing between National Grid New Hampshire and his
10		proxy, similar kind of contrast also appears for the
11		comparison of my proxy with National Grid New
12		Hampshire. And, so, I was satisfied that I have, in
13		balance, used a reasonable proxy.
14		I had also, obviously, by moving from
15		60 percent of the regulated assets to 85 percent,
16		attempted to be as pure play as possible. So, when the
17		rest of the numbers are kind of comparable when I look
18		at the, you know, the difference between the proxy
19		group and National Grid New Hampshire, I was satisfied
20		that what I had was a reasonable proxy.
21	Q.	But you I understand that. But, in your testimony,
22		you said you were "conservative, if anything". And,
23		one of the factors you just cited is New Hampshire's
24		economy. You keep saying that over and over and over
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1		again, that "National Grid New Hampshire is benefited
2		by this economy in New Hampshire." So, I take it it's
3		your testimony that it's appropriate to look at New
4		Hampshire specific factors in considering the riskiness
5		of the Company?
6	A.	Again, when I'm looking at financial risks, I have
7		looked at similar metrics as Mr. Moul had used in his
8		analysis of this comparability. And, those numbers
9		reflect what the Company actually faces in New
10		Hampshire.
11	Q.	Well, what about the sensitivity of earnings to the
12		weather? Did you consider that? Or, did you just
13		consider the good economy that you say exists?
14	Α.	Again, you are I hope I'm wrong. You're not
15		implying that that's the only thing I looked at? What
16		I'm saying is, there were several things I looked at.
17		And, as far as specifics about, you know, how the
18		weather does and etcetera, I trust the numbers that I
19		get from the financial metrics. And, they are, in some
20		ways, influenced by those realities. So, I did not
21		specifically study, you know, those kind of factors.
22	Q.	Here's why I'm asking these questions. When one reads
23		your testimony, you words like "minimum", "least",
24		"conservative", and you leave the Commission, my view,
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1		you can say if this is not what you intended, with the
2		impression that, if anything, the ROE you're
3		recommending is generous. That's what
4	Α.	Is what?
5	Q.	Is generous. And, that's why I'm asking you about
6		this. Whether, maybe given that you didn't consider
7		these other factors, that that perception is incorrect.
8	Α.	First of all, I don't think I have stated anywhere that
9		my interpretation of "minimum" or "conservative" is
10		generous. I'm trying to get at a reasonable measure of
11		the cost of equity. And, what I meant by
12		"conservative" is that, to me, when I'm really looking
13		at the return that should be applied to National Grid
14		New Hampshire, I should be reasonably sure that that
15		return is reflects that return which is arrived at
16		by looking at a proxy, kind of by comparing the
17		companies with National Grid New Hampshire, by looking
18		at those financial metrics, the number that I've gotten
19		is reasonably higher than, you know, sort of being
20		absolutely strict about it, and figuring out, "Okay,
21		because the New Hampshire economy has been doing
22		better, I'm going to now try and take off some
23		percentage points of return." That's not my intent
24		here. I'm just I was trying to get to a sense that
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1		"Okay, this number is reasonable." That's how I looked
2		at it.
3	Q.	You said, on Page 19 of your testimony, "National Grid
4		New Hampshire is less risky than the peer group because
5		of its rate design proposal." Do you recall that?
6	A.	That is, again, based on can I
7	Q.	You can, yes, Page 19.
8	A.	Just a second.
9	Q.	Line 16 to 22 of your testimony. That was a foundation
10		question. And, I'm not looking for an explanation.
11		I've correctly characterized your testimony, correct?
12	A.	I want to just check that.
13	Q.	Okay.
14	A.	Page 19?
15	Q.	Page 19, Line 16 to 22.
16	A.	Yes.
17	Q.	Do you see that statement?
18	A.	Yes.
19	Q.	Okay. Do you know what the rate designs are for the
20		companies in your peer group?
21	A.	Again, at some point we had tried to get a sense of
22		that, but it was difficult to do so. So, we didn't
23		pursue it.
24	Q.	Okay. So, you don't know, when you say "it's less

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1		risky because of its rate design proposal", you really
2		don't know, you can't compare it to those other
3		companies?
4	A.	That is not what I've said. Let me As opposed to
5		not having that kind of rate design, when you introduce
6		a rate design which is reducing risk, that, again,
7		gives me that extra comfort level. That's all I was
8		talking about there.
9	Q.	"Compared to the peer group" you said. So, you don't
10		know, though, what the other members have?
11	A.	Let me That's why I want to read it. What I said
12		was "I am also aware that Staff Witness McCluskey
13		believes that the Company's proposed rate design,
14		wherein customer charges will account for a greater
15		percentage of the distribution revenue, is essentially
16		supported by the Company's marginal cost study and
17		reduces the risks of the Company's operations and
18		provides more assurances of net income available to
19		shareholders." So, I'm really comparing this new rate
20		design compared to what the situation was before, and
21		it kind of reduces the risk a little bit. That's just
22		a statement of sort of saying "that provides a little
23		bit more comfort", that's how I was looking at it.
24	Q.	Do you know if that rate design was the one that was
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1		ultimately included in the Settlement Agreement in this
2		case or was it something different?
3	Α.	To the best of my knowledge, it was. Well, I don't
4		want to
5	Q.	Well, the question is, was the Company's proposal that
6		you're describing there, if you know, if you don't
7		know, that's fine
8	Α.	Well, I'm not talking about the Company's proposal.
9		Just a second. Yes, McCluskey is, you're right.
10	Q.	And, you don't know whether what you're describing
11		there is what was included in the Settlement Agreement?
12	Α.	To clarify, what I'm saying is, your rate design was to
13		move towards more fixed charges. And, that I'm not
14		exactly sure where the Settlement, you know, rate
15		design was. But I know that, even what George
16		McCluskey ended up proposing, that was kind of
17		supporting a move towards, you know, greater fixed
18		charges. So, in that sense, I'm really commenting what
19		I said there.
20	Q.	Okay. If everything else is equal, is it your opinion
21		that a utility with revenue decoupling has less risk
22		than with no revenue decoupling?
23	Α.	That is correct.
24	Q.	And, would there be an impact on a utility's return on
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1		equity due to the presence or absence of revenue
2		decoupling?
3	Α.	If everything else is equal, it would reduce the cost
4		of equity.
5	Q.	So, I take it it's your view that the Commission should
6		make an adjustment to the return on equity for the
7		presence or absence of revenue decoupling, all else
8		being equal?
9	A.	If I have a sense of what that decoupling mechanism is,
10		generally speaking, that's correct.
11	Q.	I want to ask you a couple of questions about capital
12		structure. The capital structure for National Grid New
13		Hampshire in this case, it's an imputed one, right?
14	Α.	Explain that again please.
15	Q.	The capital structure that's being used for purposes of
16		setting rates in this case is not the Company's actual
17		capital structure, it's an imputed one?
18	Α.	That is correct.
19	Q.	Okay. And, the one that's imputed here has less equity
20		than the Company actually had for the test year, right?
21	Α.	That is correct.
22	Q.	What's the effect on the Company's weighted average
23		cost of capital using the imputed capital structure in
24		this case?
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1 MR. DAMON: For what purposes? 2 MR. CAMERINO: For ratemaking purposes. BY THE WITNESS: 3 4 Α. Again, I may have looked at the number, but I don't 5 remember. 6 BY MR. CAMERINO: 7 Ο. Using less equity in calculating the WACC would 8 decrease the Company's overall required rate of return, 9 correct? Compared to if we had used the --10 Α. The actual capital structure. 11 Q. 12 Α. But that's a settlement. And, you know, I'm not --Q. I understand. I just want to understand, 13 14 mathematically, had that been done, --Α. 15 Yes. -- using the weighted average cost of capital, based on 16 Q. the imputed capital structure, decreases the required 17 rate of return, right, because we have more debt? 18 19 Α. That's true. More debt and less equity, right? 20 Q. 21 Α. Yes. 22 Q. Which benefits customers, correct? 23 Α. Correct. In your testimony, on Page 17, you say the peer group 24 Q. {DG 08-009} [Day II] {01-29-09}

1 "is a conservative and reasonable proxy for National 2 Grid New Hampshire" because the peer group has "a lower equity ratio than National Grid". Do you recall that? 3 4 Page 17. 5 MR. DAMON: What lines? 6 MR. CAMERINO: Lines 6 to 7. 7 BY THE WITNESS: 8 Yes. Α. BY MR. CAMERINO: 9 But that's not really true for purposes of this case, 10 Ο. though, we're using the 50 percent equity ratio, right, 11 that's what was agreed to? 12 But I'm really looking at the market, the actual 13 Α. 14 equity-to-debt ratio here. And, I'm trying to compare that with the actual equity-to-debt ratio for the 15 companies in the proxy, which, in my opinion, that is a 16 fair comparison. 17 So, if the Commission adopts your analysis, the 18 Q. 19 customers first benefit by applying a stipulated capital structure that is not what the Company actually 20 21 has, it's less equity than the shareholders have put in. And, then, the Company is further penalized by 22 23 saying "It's less risky, because it actually has more equity than we're basing rates on"? 24

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1	Α.	Again, I don't know what the capital structure in the
2		other companies, as far as what's being used as an
3		imputed number. So, all I'm doing here is, it's
4		relevant to look at the actual levels to get a sense of
5		how investors might perceive, you know, the risks.
б	Q.	But isn't it only just inequitable to use the same
7		capital structure when you're setting rates throughout
8		the case, and not use different capital structures for
9		different purposes?
10	Α.	Repeat that please.
11	Q.	Well, it just it strikes me, I'm asking you whether
12		you don't think it's unfair, not just inequitable, to
13		first say we're going to set the weighted average cost
14		of capital based on less equity than the shareholders
15		have actually invested, but, when we go to decide how
16		risky this company is, we're going to assume that that
17		equity is there, and the result is, inevitably, a lower
18		return on equity that gets allowed?
19	Α.	Again, my point is, I do not have a sense of what the
20		imputed numbers are in other cases. What I am doing
21		here is I'm looking at comparable metrics, which is the
22		actual capital-to-debt ratio, and trying to get, again,
23		a sense of how the different companies compare. That's
24		all I've done there. And, if you're going to move and
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1		talk about the imputed number, first of all, that's a
2		settlement number. And, number two, that might be
3		happening in other places, too. So, really, it's not
4		for me, it's not a very relevant number, when I'm
5		trying to compare risks.
6	Q.	And, you didn't take that into consideration then? You
7		did not take that into consideration?
8	Α.	In determining the proxy, I have looked at the proxy
9		companies and National Grid New Hampshire, and compared
10		their actual capital sorry, actual equity-to-debt
11		ratio. That's what I've done.
12	Q.	Do you see any risks associated with the Commission
13		setting the return on equity too low in this case?
14	Α.	No, not with my recommended
15	Q.	No, I don't mean it that way. If the Commission sets
16		the return on equity lower than the investment
17		community sees the true cost of equity as being, do you
18		see risks associated with that? If the Commission gets
19		it wrong on the low side?
20	Α.	If the Commission gets it wrong, under your
21		assumptions, and if I strictly follow it, which is that
22		the rate of return that the Commission ends up setting
23		is less than the true cost of equity, then, you're
24		correct. But I

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1 Ο. Well, actually, do you see risks --2 Α. Yes. -- associated with that, if that were to occur? 3 Ο. 4 Α. If that were, yes. 5 Q. Okay. Could you tell me what those are? What would 6 happen over time if the Commission set a return on 7 equity that the investment community thought was insufficient? 8 First of all, that would lead to the risk of dilution 9 Α. of stocks. And, it would become, by definition, 10 11 because the return that is being set is, you know, 12 based on your example, less than the true cost of equity, investors won't invest in this company. That's 13 14 the primary risk. Well, you discussed before that the Company, and I 15 Ο. think you heard Mr. Stavropoulos, has no immediate 16 plans to issue equity, the parent company has no 17 18 immediate plans to issue equity. Do you remember that? 19 Yes. Α. Do you have concerns that, if returns on equity are 20 ο. 21 higher in other jurisdictions where the Company does business, that the Company's shareholders will put 22 23 pressure on the Company to invest more in places where 24 the return they can get is higher? Does that concern {DG 08-009} [Day II] {01-29-09}

1 you? 2 Α. Can you please, again, repeat that question. Slowly 3 please. 4 Q. Okay. You were talking about what the investment 5 community and people buying the stock, I think you were 6 talking about external new capital coming in, your 7 answer was couched in those terms, if I understood it correct, ability to attract capital? I'm just trying 8 to understand what you said. You were talking about, 9 "if the return on equity is set too low, the Company 10 will have a hard time attracting capital." 11 That I understand what you just said. That's correct. 12 Α. On the understanding that "the company", whether we 13 Q. 14 talk about "National Grid New Hampshire" or "National Grid, PLC", may not be in the equity marketplace in the 15 16 near term, I'm trying to understand whether the Commission might have some concerns nevertheless, okay? 17 I've heard some people argue sometimes "Well, you're 18 19 not going to be issuing equity, why should we care." I don't take that view. 20 Α. 21 ο. Okay. So, tell me why we should care, even if we're not in the marketplace for new equity? 22 23 Like, you know, really, briefly speaking, like I said, Α. 24 if the allowed return on equity is lower than the cost {DG 08-009} [Day II] {01-29-09}

of equity, then that risks the dilution of stocks, 1 2 which is -- which is not the intent here. We want to 3 come up with an estimate of the return on equity which 4 is sufficient to keep the investors interested in this 5 company. And, to me, even if the Company isn't --6 isn't investing or isn't -- sorry, isn't, you know 7 floating capital. The point I'm trying to make here 8 is, the return on equity that the Commission should set should be reasonably higher than the -- that cutoff 9 that you were talking about, which is the true cost of 10 equity. It's just a judgment that I'm making, because 11 12 we cannot be so sure about what that true cost of equity is that we will set the return on equity to be 13 exactly equal to the true cost of equity. The risk 14 with that is, if situation in the economy changes, then 15 you are triggering a dilution of stocks, which is not, 16 you know, that's not how I view what I'm trying to set 17 here as a --18 19 Let me just ask it in a very simple way. If a holding Ο. 20 company can earn a return of 11 percent in one 21 jurisdiction and 9 percent, and I'm just making these

numbers up, okay, in another jurisdiction, don't you think that the investment community will put pressure on management to put more of its discretionary spending

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1		in the place where the return is expected to be higher?
2	Α.	The situations in these two places, in your
3		hypothetical example, if I'm, you know, understanding
4		you correctly, 11 and 9, it is entirely possible that
5		the realities in the jurisdiction where the return on
6		equity sorry, the return is 9, as opposed to 11 in
7		the other, there the true cost of equity is actually
8		lower than that in the other region. And, in that
9		case, again, it goes back to the point I was making
10		some time ago, which is what matters is investors are
11		going to look at what the return they can expect and
12		then compare it with the "required", which is the true
13		cost of equity, you know, the required return. And,
14		they might decide, even if this is 11 and this is 9, to
15		actually invest in 9.
16	Q.	Okay. I want to move this along, I don't want to get
17		stuck here. But I'll explain the point I'm trying to
18		make and see if you would agree with this much. I'm
19		not trying to suggest that a utility would stop
20		investing in a state because they don't like the ROE
21		that they got. But what I'm trying to find out is
22		whether the Commission should care, in considering what
23		the return on equity they're setting, whether they
24		should pay some attention to returns that other

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1		commissions are setting, because, in some ways, the
2		jurisdictions are competing for capital? Is that
3		something that the Commission should give some
4		consideration to in its decision-making process? Or,
5		should it just crank out a formula, and say "whatever
6		the number is, that's the end"? Is it a factor that
7		they should think about?
8	A.	I think I'm I'm just going to repeat it again. I'm
9		not sure I'm explaining this in a way that you are
10		getting what I'm trying to get at. Which is, if you're
11		talking about 9 and 11, and say the market cost of
12		equity is kind of similar in both, then, surely, you
13		know, the fact that some investors will find the
14		11 percent more attractive than 9 is something to think
15		about. But, if you're really talking about the market
16		cost of equity and then building in a little bit of
17		slack there to make sure that investors have interest
18		in that company, the comparison between different
19		regions is really not relevant.
20	Q.	I want to show you a document, this is from Regulatory
21		Research Associates, Regulatory Focus. You've heard of
22		RRA, have you not?
23	A.	Yes, I have.
24	Q.	And, they are part of that SNL that you took your other
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- 1 data from?
- 2 A. That's correct.
- 3 Q. Highly reputable organization? Is that a fair
- 4 statement?
- 5 A. Yes.

6 Q. You rely on them. I want to show you, this is a 7 summary of returns over time, primarily for the last 8 two years, that have been awarded in various jurisdictions. And, I'm going to show you -- I'm just 9 going to point out to you the gas returns for 2008. 10 11 You can look at as much of this as you want. I just 12 ask if you have -- can you see there, I'm going to characterize it for you, that all of the returns that 13 14 are shown on the gas pages are in the 10s, 11s, mostly in the 10s, almost all of them. I think there's a 9.99 15 in there, something in the high 9s. There might be one 16 17 \_ \_

18 A. You're looking at the second column?

19 Q. Yes. And, let me just for the record, and I'm going to 20 give the Clerk one, too. If you look beginning on Page 21 -- it looks like Page 9, upper right-hand corner, going 22 on, if I'm reading this correctly, there's reported 23 ROEs there.

24 A. Yes, I do.

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1	Q.	I just want you to look at that. And, you see all the
2		10s, 10 and a half, 10.6, 10.7. There's a 9.99 in
3		there for North Shore Gas. And, that's it, right?
4		Nothing that looks like your number. And, the first
5		page has a summary, and you can see I've marked two
б		sentences there. One sentence says "The average ROE
7		authorized gas utilities"
8	Α.	Can I
9	Q.	Yes.
10	Α.	Sorry. I'm still looking at it. And, I'm not you
11		know, there's a company here, "National Fuel Gas
12		Distribution", which has an ROE of "9.10".
13	Q.	Yes. I think I mentioned there was a 9.1 somewhere in
14		there.
15	A.	Okay. There's also another one that is "9.65".
16	Q.	Yes. But, if you look at them overall
17	Α.	There are a couple others that are "9.8".
18	Q.	Uh-huh.
19	Α.	If you're just looking at the numbers, I'm just telling
20		you that I can also see there are some 9s.
21	Q.	And, on the front page of this it gives you the
22		average. It says "the average is 10.4 in 2008",
23		compared to 10.2 in 2007".
24	A.	Where is 2004 again?
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1	Q.	Later it talks about
2	Α.	Can I ask, where is 2004?
3	Q.	I believe this document just gives the details on
4		2007-2008. And, then, earlier I think it gives summary
5		data for earlier years.
6	Α.	Okay. I mean, if you're just telling me that it is
7		what it is, I'll accept subject to check.
8	Q.	But this is a reliable source, correct?
9	Α.	Sure. These are the allowed I'm assuming you're
10		showing me the allowed ROEs for different companies.
11		MR. CAMERINO: Could we mark this as
12	E	xhibit, I think 55 is the next exhibit?
13		CHAIRMAN GETZ: Yes, it will be marked
14	a	s Exhibit 55.
15		(The document, as described, was
16		herewith marked as Exhibit 55 for
17		identification.)
18		MR. CAMERINO: And, I apologize if I
19	S	ound like I'm rushing, but I am. And, I'd also, I can
20	S	how it to the witness or I can just mark it, Mr.
21	S	tavropoulos earlier referred to the deliberations in
22	R	hode Island. And, I've got copies of the ROE portion of
23	t	hat, which I'd like to mark. I was going to show it to
24	D	r. Chattopadhyay, but I'm inclined not to, given the
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1	hour. And, it just confirms what Mr. Stavropoulos said
2	about what happened in Rhode Island.
3	CHAIRMAN GETZ: Okay. We'll mark this
4	for identification as "Exhibit 56".
5	(The document, as described, was
6	herewith marked as Exhibit 56 for
7	identification.)
8	MR. CAMERINO: And, when you read it,
9	you'll see they do business differently in Rhode Island
10	than we do in New Hampshire apparently. So, that was
11	Exhibit 56?
12	MS. DENO: Yes, 56.
13	MR. CAMERINO: Fifty-six. Okay.
14	Dr. Chattopadhyay, did I give you a copy of that?
15	WITNESS CHATTOPADHYAY: Yes.
16	BY MR. CAMERINO:
17	Q. All I was going to do is have you confirm that there
18	was a discussion among the three Commissioners. And,
19	while they had different suggested numbers, they ranged
20	from 9.95 to they settled on 10 and a half, and they
21	had a range that was broader than that that
22	A. Can you just show me where?
23	Q. Yes. I marked the portions.
24	A. Okay.
	DC 08-000 [D3V II] (01-20-00]

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1	Q.	If you look on Page 108 of this transcript, the
2		Chairman speaks.
3	Α.	Page 108, yes.
	_	
4	Q.	And, he proposes a figure that I think was 11, if I
5		recall. It's going to speak for it he proposes 11
6		
7	A.	Where are you?
8	Q.	He proposes 11 on Line on Page 110, Line 9.
9		Commissioner Bray proposes 9.95 on Line 17 of that same
10		page. And, then, Commissioner Holbrook proposes a
11		compromise of 10.5, I believe is his number, which
12		ultimately gets adopted for the order.
13	Α.	And, the last the last line that you just mentioned
14		was where is it again, sorry?
15	Q.	Well, I didn't have the exact line number. But, if you
16		look on Page 112, that's where Commissioner Holbrook
17		speaks, and then there's a longer discussion. But I'd
18		actually just as soon not be the one characterizing
19		this, the document can speak for itself. Okay. And,
20		so, my question is, those kinds of numbers that are
21		coming out of other jurisdictions, would you agree that
22		that is something that influences investors and that
23		this Commission should give some consideration to in
24		its deliberations?

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1 A. I don't agree with that.

Q. You don't think the Commission should give any
consideration to what other jurisdictions are awarding
as ROEs?

5 Α. If you're talking about this case, where we are going 6 through different methods to figure out what the cost 7 -- what the allowed return on equity should be, we are already using methods which produce numbers that are 8 relevant for the National Grid New Hampshire company. 9 And, what other commissions may have done in other 10 jurisdictions, in my opinion, unless you really know 11 12 how those returns were calculated and what realities were looked into, I have, I mean, just look at the 13 14 numbers across different companies based on what commissions have, you know, ordered or allowed. To me, 15 that is not a very sensible analysis. 16

17 Q. Okay.

18 A. The other problem with that is, if you really start 19 doing that, you kind of get into a circularity with 20 this. And, that is like, I will look at what's 21 happening in other places, and, based on that, this is 22 my number. Now, everybody starts doing it, then really 23 you're not objectively looking at what the cost of 24 equity is at any point in time for a specific company.

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1	MR. CAMERINO: Okay. I want to show you
2	some excerpts from some other testimony, and then I'm
3	going to try and wrap it up. I handed out before, I don't
4	know if we marked this, some testimony, an excerpt from
5	Ms. Sirois's testimony in DE 03-200. Did we mark that or
6	did I just
7	CHAIRMAN GETZ: We did not mark it.
8	MR. CAMERINO: Okay. We could give that
9	the next number, that would be Exhibit 50
10	CHAIRMAN GETZ: Fifty-seven.
11	MR. CAMERINO: Fifty-seven.
12	(The document, as described, was
13	herewith marked as Exhibit 57 for
14	identification.)
15	BY MR. CAMERINO:
16	Q. All right. And, you've got that or do you need another
17	copy, Dr. Chattopadhyay?
18	A. I have so many papers. Sorry.
19	Q. Okay. I just want to show you a similarity across some
20	testimonies, and then get to yours. In that docket, DE
21	03-200, that was Ms. Sirois testifying. And, if you
22	look at Page 3, can you see on Line 7 she says "The
23	national economy is slowly recovering from the 2001
24	recession".
	ADC 08-000 [ TT J 01-20-00]

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- 1 A. Yes.
- 2 Q. You see that?
- 3 A. Yes.

4 Q. And, if we then turn to the next page of this excerpt, 5 Page 6, and we try to understand what's the relevance 6 that "the economy is slowly recovering from the 7 recession", she answers that question on Line 10 on 8 Page 6. And, she says "Investors respond to changing assessments of risk and financial prospects by changing 9 their willingness to pay for a security. During times 10 of uncertainty, investors are less willing to invest in 11 high-risk equity. As a result, equity markets adjust. 12 Lower demand causes prices to fall, increasing dividend 13 14 yields, and the opportunity cost of equity." Right? And, then, she goes on and she says "Current economic 15 indicators show that the health of the economy is 16 improving and interest rates have remained at 17 historical lows. However, the uncertainty associated 18 19 with the war in Iraq and increasing crude oil and 20 natural gas prices may lower an investor's expected 21 return on a company's equity. In addition, investors may also seek less risky equity such as equity offered 22 23 by regulated electric distribution companies." So, in 2004, she says "the national 24 {DG 08-009} [Day II] {01-29-09}

1	economy is slowly recovering from recession, but we
2	expect lower returns", correct?
3	A. I apologize, I was getting a call. I just lost track a
4	little bit. I'm just going to read the You ended up
5	reading this paragraph, right?
6	Q. Right. What I'm looking at is what she starts with,
7	"we're coming out of a recession", and her conclusion
8	at the end, it goes on to Page 7, is "investors may
9	seek less risky equity such as equity offered by
10	regulated electric distribution companies."
11	A. Uh-huh.
12	MR. DAMON: What is the question based
13	on all that? Ms. Sirois is not here testifying and
14	MR. CAMERINO: Well, I can put these in
15	and then ask you the ultimate question, if you'd like. I
16	mean, shall I do that, distribute each of these?
17	CHAIRMAN GETZ: That may be the quickest
18	way.
19	MR. CAMERINO: Okay. I apologize. I am
20	trying to be efficient about it. The next one is an
21	excerpt from Docket DW 04-056, also from Ms. Sirois.
22	CHAIRMAN GETZ: We'll mark that as
23	"Exhibit 58" for identification.
24	(The document, as described, was
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1 herewith marked as Exhibit 58 for 2 identification.) BY MR. CAMERINO: 3 4 Q. And, just so it's not a mystery, what I'm trying to 5 show is there's sort of a format that's very similar, 6 from your testimony to the last, you know, four or five 7 return on equity testimonies that have been filed by 8 the Staff as the economic circumstances change. And, what I want to have you take a look at is, what struck 9 me about it, each time, even though the economic 10 circumstances are different, the conclusion is always 11 12 the same. That's what I'm asking you is, you know, even though each time the economic circumstances are 13 different, doesn't the Staff conclude that that makes 14 utility stocks less risky, and therefore the cost of 15 equity is down? But, if you take a look at each of 16 these, I think that's what I would like you to do and 17 see if you draw that same conclusion. 18 19 CHAIRMAN GETZ: We'll mark as "Exhibit 59", the Testimony of Ms. Sirois, in docket DE 04,177. 20 21 (The document, as described, was herewith marked as Exhibit 59 for 22 23 identification.) MR. CAMERINO: The next one is Testimony 24

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of Ms. Sirois, June 9, 2005, from docket DE 05-178. 1 2 CHAIRMAN GETZ: We'll mark that as "Exhibit 60". 3 4 (The document, as described, was 5 herewith marked as Exhibit 60 for б identification.) 7 MR. CAMERINO: Let me just consult with the Clerk. I think I lost track. 8 9 CHAIRMAN GETZ: Did we miss a number or double up? 10 MR. CAMERINO: I think I may have -- how 11 about if I --12 13 CHAIRMAN GETZ: Let's go off the record 14 for one second. (Whereupon a brief off-the-record 15 discussion ensued.) 16 CHAIRMAN GETZ: All right. Back on the 17 record. I think we're under control for the numbering. 18 19 Off the record, Steve. 20 (Whereupon a brief off-the-record 21 discussion ensued.) CHAIRMAN GETZ: Okay, back on the 22 record. And, we'll mark for identification as "Exhibit 23 Number 61" an excerpt of the Testimony of Dr. 24

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1	Chattopadhyay in docket DE 06-028.
2	(The document, as described, was
3	herewith marked as Exhibit 61 for
4	identification.)
5	BY MR. CAMERINO:
6	Q. All right. So, Dr. Chattopadhyay, what I've done is
7	I've handed you five excerpts from Staff testimony that
8	preceded this case on cost of equity. And, they're
9	from cases starting from 2003, and the testimony was
10	filed in 2004; another one in early 2005; another one
11	in mid 2005; another one in mid 2005; yours from late
12	2006. And, if you look at the excerpts, each time
13	you'll see, first, there's a characterization of how
14	the economy is doing. As I told you, the first one
15	from Ms. Sirois, she says "The national economy is
16	slowly recovering from the 2001 recession". If you
17	look at the second one, she says "The national economy
18	is recovering from the 2001 recession." In the third
19	one, she says "Currently, the economy is growing at a
20	steady pace". Then, the next one, 05-178, she says
21	"Currently, the economy is growing at a steady pace".
22	And, then, yours you say "The above inverted yield
23	curve shows that investors expect an economic
24	slowdown". And, then, finally, in this case, on Page
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1		17, you say "These are times of enormous economic
2		stress". But, in every single one of these
3		testimonies, there's been a section that says "what
4		relevance does this have?" And, the Staff witness
5		reaches the exact same conclusion, which is "utilities
6		are lower risk, they're more attractive, and therefore
7		cost of capital is down". Do you see that? In fact,
8		the words, and I can understand why this would happen
9		in this field, but it looks like they're largely
10		lifted, and then modified slightly based on the year of
11		the filing. And, I don't mean that as a criticism.
12		Many consultants obviously give the same
13	Α.	I cannot
14	Q.	I really want to make that clear. Consultants give
15		similar testimony over and over again. I'm not
16		suggesting plagiarism or anything else of that sort.
17		But we have "recession", we have "coming out of
18		recession", we have "steady growth", "recession
19		coming", "global turmoil", and every time the
20		conclusion is the same, which is "cost of equity is
21		down"?
22	Α.	Again, in just looking at it, and given the time that I
23		have to understand what is being described, I'm going
24		to basically be able to talk about just my testimony
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1		
1		previously and this time. I don't have I didn't
2		write these, the other testimonies, so I'm not sure I
3		can speak to that, speak to those. But I'll definitely
4		try and talk about the couple that I have worked on.
5	Q.	All right. That's fair.
6	Α.	And, even at the time of 2006, when I wrote the other
7		testimony, there was the economy was expected to be
8		in a slowdown, and there was not the economy was
9		going through trouble. So, that is perhaps not as
10		stark as what the situation is right now, but I still
11		maintain what I've said in that testimony and what I'm
12		saying in my testimony in this case. So, I don't see
13		any inconsistencies in at least what I have mentioned
14		in either cases.
15	Q.	Okay. And, I'm trying to narrow down my questions
16		here, so if you'll bear with me. I am actually getting
17		near the end. We had a lot of discussion on this
18		subject earlier today about "utilities being lower
19		risk". And, what I really want to understand is, when
20		you say "utilities are lower risk than companies in the
21		market generally", that's not that's well known,
22		right? I mean, that's not something that's really in
23		debate in economic among economists, correct?
24	Α.	Generally speaking, that is correct. But the point I
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1		was making is that, in difficult times, utility stocks
2		tend to be defensive stocks. People tend to go towards
3		gravitate towards them. That is the point I was
4		trying to make. So, really, I'm also looking into
5		what's happening in the economy. If there's a downturn
б		or, you know, the situation is bad, investors tend to
7		move towards defensive stocks. That's how I was
8		looking at it.
9	Q.	Relatively speaking, those investors who are in the
10		market tend to move towards defensive stocks, correct?
11	A.	Yes. By definition, if they are defensive stocks, yes.
12	Q.	But you could be in a period where investors are averse
13		to equities generally, correct, even though they may
14		favor utility equities over other equities?
15	A.	If that is a situation you're describing as a
16		possibility, that's possible.
17	Q.	And, during such a period, the cost of equity for a
18		utility would be increasing, if investors are equity
19		averse, even though that cost of equity for utilities
20		may be lower than it is for unregulated companies,
21		correct?
22	A.	That is possible, yes.
23	Q.	So, the fact that the economy is going down doesn't
24		mean necessarily that the cost of equity is going down,
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1 even -- even if investors prefer utility stocks to 2 nonutility stocks? That I agree with. 3 Α. 4 Q. Okay. And, --5 MR. DAMON: Well, --6 MR. CAMERINO: I didn't mean to 7 interrupt, I'm sorry. BY THE WITNESS: 8 The point I'm trying to get across, and I agree with 9 Α. 10 your description, it's really about trying to 11 understand, you know, what happens when one piece moves. So, when I said that "there's a tendency for 12 the returns on utility stocks to go down", it's really 13 14 I'm talking relatively speaking. Okay? BY MR. CAMERINO: 15 16 ο. And, that --And, it is entirely possible that, overall, the returns 17 Α. in a particular economy, they're tending to go high. 18 19 But within -- when you go across industries, go across companies, it is possible that the defensive stocks, 20 21 even though they are going higher -- sorry, even though -- even though their returns are lower, they might 22 23 still be higher than what the situation was previously. That's --24

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1	Q.	Okay. And, declining prices is a classic indicator of
2		less demand for that investment, right?
3	A.	Again, relatively speaking. If there is a particular
4		stock whose prices are falling only 3 percent, say,
5		over the year, as opposed to some other stock where the
6		prices are falling 30 percent, while you're right, you
7		know, the dividend yield will go up for both of them,
8		it still is true that, when you compare these
9		companies, you will be gravitating towards the one that
10		has a lower, you know.
11	Q.	And, so, in the example you gave, the one with the
12		lower risk, and I don't remember exactly how you put
13		it, but I'll call it "the one with the lower risk", its
14		cost of equity may be lower than the other company
15	A.	Yes.
16	Q.	with the higher risk, but its cost of equity could
17		still be increasing over what it previously was?
18	A.	It is a dynamic concept, and it's a dynamic number, it
19		can be higher than what it was previously.
20	Q.	And, in fact, your DCF even reflects that, because,
21		since you originally did your DCF, the prices have come
22		down and your DCF went up, right?
23	A.	That is correct. When I did by original or, rather,
24		the initial testimony, I had used information based on
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1		somewhere around October and September. And, since
2		then, the prices of the stocks that I have considered
3		in my proxy have, relatively speaking, have gone down,
4		and that is reflected in the DCF estimates.
5	Q.	And, we're in a period of extreme risk aversion in the
6		markets, aren't we? Almost unprecedented?
7	Α.	Again, it depends on what kind of stocks you're talking
8		about. Generally speaking, you're right. But there
9		might be, again, defensive stocks, which, you know,
10		people would still be moving towards them. So, it's
11		while you're correct that, you know, there will be a
12		lot of risk aversion, but depends on, you know, what
13		kind of stocks you're talking about. There will be
14		differences in investors' behavior.
15	Q.	Do you know how much the Dow Jones Industrial Average
16		has fallen since June 30th of 2008?
17	A.	I don't know the percentage drop, but I know it is
18		MR. CAMERINO: Let me I'm going to
19	ju	st show you a Yahoo! printout, mark this as an exhibit.
20	BY M	R. CAMERINO:
21	Q.	And, I did the math, but what I'm going to ask you, and
22		you can check it, I'm not going to take the time to do
23		the math now, but I did the math from June 30th, 2008
24		until January 22nd, which is when this is from. This
		$\{DG 08-009\} [Day II] \{01-29-09\}$

1	is a Yahoo! Finance printout from the Web. And, based
2	on the figures here, I calculated, and I'd ask you just
3	to check this, if you would, that the difference
4	between from June 30th, 2008 to January 22, 2009,
5	the Dow Jones Industrial Average dropped 28.43 percent.
6	Okay?
7	MR. CAMERINO: And, if we could mark
8	that as the next exhibit.
9	CHAIRMAN GETZ: Exhibit 62.
10	(The document, as described, was
11	herewith marked as Exhibit 62 for
12	identification.)
13	BY MR. CAMERINO:
14	Q. And, then, I'm going to show you, these look very
15	similar, so you want to write the exhibit number on
16	them.
17	MR. DAMON: I have, as Exhibit 62, the
18	first Yahoo! series of numbers. Am I wrong about that?
19	MR. CAMERINO: This is going to be 63.
20	MR. DAMON: Sixty-three, okay.
21	(The document, as described, was
22	herewith marked as Exhibit 63 for
23	identification.)
24	BY MR. CAMERINO:
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1	Q.	So, just to be clear, what I'm handing out now is the
2		same data, but for the Dow Jones Utility Average. And,
3		you had said that utility stocks, in your testimony,
4		"hadn't gone down as much as the market overall". Do
5		you recall that?
6	Α.	Yes. But I was talking about the proxy companies.
7	Q.	Okay. So, this, just to give you a sense here, these
8		are is the utility average. And, I calculated for
9		the same time period that the Dow Jones Utility Average
10		dropped 30.57 percent. So, similar to the overall
11		Industrial Average, maybe slightly more during that
12		same period?
13	Α.	Subject to check, you know, if you calculated it, I'll
14		believe you.
15	Q.	So, and just, again, I'm not trying to draw a specific
16		conclusion from this, other than the general statement
17		in your testimony that "utility stocks have fared
18		better" doesn't appear to be borne out?
19	Α.	I have talked about regulated stocks. So, you the
20		index that you're talking about here contains utilities
21		that are that have exposure to unregulated
22		businesses as well. So, really, what I was talking
23		about is the regulated companies in my testimony. And,
24		since you are showing me these numbers, I can also tell
		$\{DG \ 08-009\} \ [Day \ II] \ \{01-29-09\}$

1	you that, generally speaking, prices, for example, for
2	the proxy stocks, compared to, say, March, you know,
3	middle, they, and I've looked at numbers beginning of
4	January, they tended to be same or higher, okay? So,
5	it's I'm not saying that's true across all companies
6	in my proxy. But, generally speaking, the stock prices
7	had been pretty stable for the regulated stocks the
8	proxy stocks, sorry, that I looked at.
9	And, so, by this kind of contrast you're
10	showing me may be applicable for the averages you're
11	looking at, the proxy that I looked at, the story is
12	different. It's not about 30 percent or 27 percent
13	drops. It's more like they have been pretty stable.
14	They stayed, you know, around, I would say, it depends
15	on which day you look at, sometimes it's actually
16	positive, that is it's higher. And, then, other days
17	it's negative, but only negligibly. And, I'm talking
18	about compared to what the situation was in March. So,
19	they're really not the same groups.
20	MR. CAMERINO: Just so the Chair knows
21	where I am, I have just a few questions, and then I'd like
22	to just take a minute and confer with my colleagues.
23	BY MR. CAMERINO:
24	Q. Okay. Dr. Chattopadhyay, is it fair you used some
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1		words that I haven't seen before in Commission
2		testimony. You talked about "wealth transfer", that
3		"there's a risk of wealth transfer from customers to
4		shareholders." Is it fair to say that the
5		"shareholders" that you're talking about, some of those
6		are retirees, people with 401-k plans, people with 529
7		plans that are trying to send their kids to college,
8		those are the people who own the stocks that we're
9		talking about? It's not just Bill Gates?
10	A.	That's really not relevant, as far as I'm concerned.
11		There's no way for me to know. But, you know, if
12		you're saying they're mostly people who are not Bill
13		Gates, that's true for almost all people. They're not
14		really like Bill Gates.
15	Q.	Well, the reason I'm asking is, there's been some
16		testimony, some of what has been said in this case that
17		indicates that somehow, during an economic downturn,
18		the Commission should be taking into consideration,
19		somehow in a way that's different from what it might
20		otherwise do, taking that into consideration in a way
21		that is different from what it normally might do. And,
22		I think implicit in that is the idea that "it's hard
23		times, and the utility should earn less than a return
24		than what the Commission would normally grant." Is
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1		that a view that you hold? That the Commission's
2		determination should be lower because of the economic
3		times, for that reason?
4	A.	The return should be what the market is telling you.
5		That's my opinion. But, you know, there are other
6		reasons for like the ones you described, that, in an
7		economic downturn, there are people who really need
8		help, and kind of business you are in, that might mean
9		that you need support somehow. And, I'm not an expert
10		on telling you how that should be done. But, generally
11		speaking, the cost of equity for me should not be
12		influenced by those considerations. That's just my
13		view.
14	Q.	And, during those times, those difficult times, there
15		are people who are dependent who are concerned about
16		the return they're getting in those types of
17		investments that I indicated, so that they can meet
18		their other obligations, right?
19	A.	Again, that is not my
20	Q.	Okay. I'm sorry. And, then, lastly, I want to just
21		ask you very briefly about you discussed the
22		market-to-book ratio and the fact that it's above one.
23		And, you say "Investors understand that a divergence in
24		the stock price and the book value is unsustainable in
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1 the long run." Does that sound familiar?

2 A. Yes.

Q. Are you saying that investors buy gas utility stocks
expecting that the market price is going to move to the
book value?

6 A. No, I never said that.

7 Q. Okay.

8 What I said was that "this continuous divergence, okay, Α. 9 over time cannot be sustained." That's all I've said. And, the way you determine the return on equity, when 10 you're building in slack to ensure that investors stay 11 interested in the business, that in itself, including 12 the fact that, you know, there might be external 13 14 financing later or expectations that investors have about external finances, the fact remains that, because 15 the market-to-book ratio ends up influencing those 16 factors, they kind of are in some ways self-fulfilling. 17 So, you're never really -- the way returns are set, 18 19 you're really not converging to a point where they're same, that is the ratio is one. But all I was saying 20 21 was, if you continuously have a divergence, that situation is not, you know, sustainable, and investors 22 23 understand that.

24 MR. CAMERINO: Okay. Thank you. If we {DG 08-009} [Day II] {01-29-09}

1 could just take a two-minute break. Thank you for your 2 patience. 3 (Off the record.) 4 CHAIRMAN GETZ: Back on the record. 5 MR. CAMERINO: Okay. 6 BY MR. CAMERINO: 7 ο. I just had a follow-up on the peer group issue, Dr. 8 Chattopadhyay. On which issue? 9 Α. On the peer group issue. We talked about the fact that 10 ο. 11 most of the members of the peer group had a revenue 12 decoupling mechanism. Why didn't you make an upward 13 adjustment given that fact, upward adjustment in your 14 DCF result? The group that I had, they -- there were three 15 Α. companies that didn't have revenue decoupling, okay? 16 17 And, so, the group of seven companies that I had wasn't really a group that had revenue decoupling, so I didn't 18 19 -- I'm not sure what are you asking me, because that 20 particular group didn't reflect any adjustments for 21 cost of equity based on --Well, a majority of the group had revenue decoupling, 22 Q. 23 right? That still doesn't give me confidence to come up with 24 Α. {DG 08-009} [Day II] {01-29-09}

1		an ad hoc adjustment. And, I just don't prefer doing
2		it without knowing more about what kind of mechanisms
3		there are in those jurisdictions.
4	Q.	Okay.
5	Α.	I just I don't do it for that reason.
6	Q.	I also just want to get one thing clarified on the
7		record. I just want you to walk us through very
8		briefly, this is so that I can understand how you came
9		up with your range and your point estimate.
10	Α.	Yes.
11	Q.	If you look at Page 35 of your testimony, you lay out
12		all your ROE results, you see that? This is
13	Α.	Yes.
14	Q.	I don't remember the exhibit number, but.
15		CHAIRMAN GETZ: Twenty-seven.
16	BY T	HE WITNESS:
17	Α.	Twenty-seven.
18	BY M	R. CAMERINO:
19	Q.	Twenty-seven, okay. You see all those numbers?
20	Α.	Yes.
21	Q.	What I'd like you to do is just show us how you came up
22		with your range, how you came up with your point
23		estimate, and then just tell us the same thing with
24		your updated figures, just so I can clearly understand
		{DG 08-009} [Day II] {01-29-09}

1		that?
2	Α.	Sure. I essentially calculated three point estimates
3		okay. The first one is based on entirely the DCF
4		traditional, you know, that, those methods. And, the
5		other DCF method, which is 8.95, okay? So, it's tied
6		with the just a second please.
7	Q.	Maybe I can walk you take the time you need, but
8		maybe I can walk you through it a little more clearly,
9		okay?
10	A.	Yes.
11	Q.	In your testimony, on Line 17 of Page 35,
12	Α.	Yes.
13	Q.	you say your range is "8.95 to 9.28", do you see
14		that? Line 17.
15	Α.	Okay, I'm just I'm going to quickly just a
16		second.
17	Q.	Are you looking for backup or just that page?
18	A.	Yes, I think I would, now that I look at it, I made an
19		error in reporting the number, that is the "8.95", it
20		should have been "8.9" sorry, "8.76", based on the
21		market-to-book method. So, by mistake, I was referring
22		to 8.95. So, the range in my previous testimony, and
23		this should be a correction, I apologize for not
24		knowing that, it's "8.76 to 9.28". And, let me walk
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1 through this, the steps that I have used for it. 2 Ο. Is it not as simple as I see an "8.76" up above, which 3 is your market-to-book method. 4 Α. Oh. 5 Q. And, I see a "9.28", which is your CAPM Method 1? 6 Α. Excuse me. 7 CHAIRMAN GETZ: Just one person at a 8 time. BY THE WITNESS: 9 Excuse me, let me just go through. 10 Α. BY MR. CAMERINO: 11 12 Ο. Okay. Sorry. I know I -- I think there is an error there, but let me 13 Α. 14 walk through this. What I intended to do is, look at the traditional DCF calculations there. Okay? And, 15 they are the 8.24 and 9.28. As well as the other DCF 16 method, which was based on, again, the internal plus 17 external growth rate method, which shows up in the 18 19 second row. And, if you average them out, you get 9.01. Okay? 20 21 Ο. Give me those two numbers again that you average out? The 8.24, the 9.82 [9.28?], and 8.95. 22 Α. 23 Q. Okay. Then, I would add the market-to-book method number, 24 Α.

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which is 8.76, and average -- and calculate the average 1 2 for those four measures. And, that's where I made the 3 error. And, if I can have a calculator, I can do it. 4 But, if somebody can help me with this, I will quickly 5 \_ \_ 6 (Atty. Camerino handing calculator to 7 the witness.) BY MR. CAMERINO: 8 And, just so you know, my follow-up question will be 9 Ο. 10 that you did the same thing when you updated your numbers? 11 Yes. Yes. Okay, the number I'm getting is actually 12 Α. 8.9425. So, it is correct, it's just -- well, not 13 14 correct, but it's 8.94. Okay? What is "8.94"? ο. 15 The average of the first four estimates from the top. 16 Α. What do I do with that number? 17 Ο. I'm just saying that's one of the point estimates I 18 Α. 19 have. Okay? 20 Q. Okay. 21 Α. And, then, I will add the other two, which is the 9.28 and 10.64 with the correction that I made in the 22 23 morning today. So, --MR. CAMERINO: Could we -- Would it be 24 {DG 08-009} [Day II] {01-29-09}

1	possible for me to make a record request where he shows
2	this to us? Because I'm just I'm pretty confused, and
3	I just want to have, when both there's briefing and the
4	Commission considering it, exactly how he derived his
5	point estimate and his range. So, maybe I can articulate
6	what we're looking for and he can just do the math on a
7	page, because I don't want to take your time now.
8	CHAIRMAN GETZ: Well, it does seem like
9	there's some confusion about this. Mr. Damon, do you have
10	any objection to reserving an exhibit, and then Dr.
11	Chattopadhyay could lay out the show his work in how he
12	got to both the original and the updated?
13	MR. DAMON: No, I don't. And, I think
14	it's also true that Mr. Moul's way that he did it, I think
15	it's clear from his testimony, right?
16	BY MR. CAMERINO:
17	Q. Well, let me just say what I'm looking for. You've
18	stated a range, and you've stated a point estimate.
19	That's your recommendation. And, you did that in your
20	original and your rebuttal. I'd like to know the
21	source of each end of the range, how you came up with
22	those numbers, it may be obvious, but I'd like each end
23	of the range, and the point estimate. And, then give
24	us your revised numbers for each number on that table,
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[WITNESS: Chattopadhyay] 1 and then give us that range and point estimate again. 2 Okay? 3 Α. Well, so that would be -- you're saying in writing? 4 Q. We don't need to do it here on the stand now. 5 Α. Yes. 6 CHAIRMAN GETZ: We will reserve 7 Exhibit 64 for the calculations. (Exhibit 64 reserved) 8 9 CHAIRMAN GETZ: But, just to make sure, Mr. Camerino and Mr. Damon, confer after the hearing to 10 make sure there's agreement on how it's going to be laid 11 12 out. 13 MR. DAMON: Sure. 14 CHAIRMAN GETZ: Mr. Linder. MR. LINDER: Just a question or a 15 clarification. Is the correction that was mentioned to 16 Line 17, on Page 35, to change "8.95" to "8.76" still 17 correct? 18 19 WITNESS CHATTOPADHYAY: Can I talk? 20 CHAIRMAN GETZ: Please. 21 WITNESS CHATTOPADHYAY: I was confused just for a brief time. I did the exact same thing what I 22 23 did in the previous testimony and in the new testimony. And, that number that I said, "8.76", that was a -- and I 24 {DG 08-009} [Day II] {01-29-09}

1	said that would be replacing "8.95", that was a mistake,
2	okay? The number that I have in my testimony are still
3	pretty good, okay? Meaning that the range that I get
4	would be about 8.94 to 9.28, and my point estimate, which
5	is based on the first three methods, will still be 9.01 in
6	my prefiled testimony. And, in the new, same approach,
7	you know, I've kind of used three point estimates to
8	figure out what the range is. That's what I did. And,
9	the three point estimates are based on, first, just using
10	the first three DCF estimates, you know; second, the first
11	three DCF estimates, plus the market-to-book method and
12	averaging it; third, the first three DCFs, plus the
13	market-to-book ratio method, plus the other two CAPM
14	numbers.
15	MR. DAMON: Okay. Staff will agree to
16	put this in writing, because
17	WITNESS CHATTOPADHYAY: That's what I
18	did. So, please don't confuse the last number with
19	"8.76". That's fine.
20	CHAIRMAN GETZ: Okay. And, we'll see
21	this all set out in Exhibit 64.
22	MR. DAMON: Yes.
23	MR. CAMERINO: Thank you. That
24	concludes my cross, and I very much appreciate the Bench's
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1 patience. 2 CMSR. BELOW: Well, I have a request of 3 the Company. As you've introduced these Exhibits 62 and 4 63, which are data series for the Dow Jones Industrial 5 Average and Dow Jones Utility Average, from June 30th, 6 2008 to January 22nd, 2009, could you provide us with a 7 similar data series for all the companies in the two 8 different peer groups, as well as National Grid, for the same time period? 9 10 MR. CAMERINO: We can -- I'm assuming that's accessible, yes. 11 CHAIRMAN GETZ: And, we'll reserve 12 13 Exhibit 65 for that information. 14 (Exhibit 65 reserved) CHAIRMAN GETZ: Mr. Damon, an 15 opportunity for redirect? 16 17 MR. DAMON: If I could just have a 18 moment. (Atty. Damon conferring with the 19 20 Witness.) 21 CHAIRMAN GETZ: Mr. Damon. 22 MR. DAMON: Yes. Thank you. Let me ask 23 you just a couple of questions. 24 REDIRECT EXAMINATION {DG 08-009} [Day II] {01-29-09}

		[WITNESS: Chattopadhyay]
1	BY N	MR. DAMON:
2	Q.	First of all, on cross-examination the question was
3		asked "should the Commission pay attention to the
4		returns on equities ordered by other states?" And,
5		would you in your opinion, what is the significance
6		of ROE, and as well as other aspects of a rate case
7		that go to make up the revenue requirement?
8	Α.	If the Commission is actually going to look at the ROEs
9		in other jurisdictions, I also think it is absolutely
10		vital that you look at the total rate cases in, you
11		know, the ones that you're looking at. And, he wanted
12		to look at what the revenue requirement was, and so I
13		said "just looking at the return on equity in isolation
14		is not a preferred approach."
15	Q.	And, I just have one copy of this, I have shown it to
16		counsel for the Company. And, this is in relation to
17		Exhibit 62 and 63, where some information is presented
18		regarding the Dow Jones Utility Average. And, I'll
19		show that to you.
20	Α.	Yes.
21	0	And ask you what that degument is?

21 Q. And ask you what that document is?

A. It shows the current components on the Dow JonesUtilities.

24 MR. DAMON: Thank you. I would like to {DG 08-009} [Day II] {01-29-09}

offer this as an exhibit. I'm sorry, I have only the one 1 2 copy. CHAIRMAN GETZ: We'll mark it for 3 4 identification as "Exhibit Number 66". 5 (The document, as described, was б herewith marked as Exhibit 66 for 7 identification.) MR. DAMON: Do I --8 9 CHAIRMAN GETZ: Well, if the witness is going to need to refer to it --10 MR. DAMON: Yes. Well, let me just ask 11 this follow-up question. 12 BY MR. DAMON: 13 14 As you look at the companies on that list, how many gas Ο. distribution companies are on that list? 15 If you're asking specifically "gas utilities", I don't 16 Α. 17 see any. I do see one which is "oil and gas pipelines". And, the rest of them are all "electric 18 utilities" or "diversified utilities". 19 20 MR. DAMON: Okay. 21 CHAIRMAN GETZ: You can provide it to the Clerk. 22 MR. DAMON: That's all the questions I 23 have. I would make one request, though. Staff would ask 24 {DG 08-009} [Day II] {01-29-09}

that a record request be reserved for an exhibit to show 1 2 the same numbers that are presented in Exhibit 62 and 63, but that start a full year back, rather than starting in 3 4 June. 5 MR. CAMERINO: And, ending at the same 6 period? 7 MR. DAMON: Ending -- yes. MR. CAMERINO: Why don't we just 8 substitute that, essentially 365 days. 9 10 MR. DAMON: Right. MR. CAMERINO: Why don't I just provide 11 a substitute exhibit, and the number I derived will still 12 be derivable from that. 13 14 CHAIRMAN GETZ: Okay. That's fine. MR. CAMERINO: Is that easier? 15 CHAIRMAN GETZ: There's some discussion 16 on the record of what the percentage decrease would have 17 been over the time that's in the two current exhibits. 18 19 But I think there's enough discussion to --20 MR. CAMERINO: I don't want to confuse 21 things. Maybe just make it a separate one. Sorry, I just -- I'm offering too much help. 22 23 CHAIRMAN GETZ: Thanks for the assistance. We'll reserve Exhibit Number 67 for the 24 {DG 08-009} [Day II] {01-29-09}

lengthier versions of Exhibit 62 and 63. 1 2 (Exhibit 67 reserved) CHAIRMAN GETZ: Well, let's extend 3 4 Exhibit 65 back a year as well. Does everybody 5 understand? б (No verbal response) 7 CHAIRMAN GETZ: Okay. MR. CAMERINO: So, just so I'm clear, 8 the beginning date for those various printouts would be --9 CHAIRMAN GETZ: I took it from Mr. Damon 10 11 as a year previous to where the Exhibits 62 and 63 and what 65 would have been, extend them back a year. 12 13 MR. DAMON: Yes, we were trying to get 14 at the concept of going back a year starting on the last day that their data is showing, which is January 22, 2009. 15 MR. O'NEILL: You want January 22, 16 2008 through January 22, 2009? 17 MR. DAMON: Yes. 18 19 MR. O'NEILL: Okay. 20 CHAIRMAN GETZ: Okay. That's on the 21 record. And, so, it looks like there's an agreement among the parties on what the Exhibit 67 will look like. So, we 22 23 will reserve that exhibit. Any objection to striking 24 {DG 08-009} [Day II] {01-29-09}

identifications and admitting the exhibits into evidence? 1 2 (No verbal response) CHAIRMAN GETZ: Hearing no objection, 3 4 they will be admitted into evidence. As we discussed 5 earlier, I guess what we are expecting next would be a 6 single round of briefs due on February 13th, is my 7 recollection from the procedural schedule, dealing with the return on equity issues. And, we would also include 8 at that time an opportunity for written closing statements 9 as to all other issues in the proceeding. 10 11 Is there anything else we need to 12 address today? 13 MR. CAMERINO: Just want to thank the 14 Commission again for its endurance. We really appreciate 15 that. CHAIRMAN GETZ: Okay. Then, hearing 16 nothing else, we'll close this hearing. I'll await the 17 additional exhibits that we've reserved numbers for, and 18 the written submissions. Thank you, everyone. 19 20 (Whereupon the hearing ended at 6:04 21 p.m.) 22 23 24 {DG 08-009} [Day II] {01-29-09}