1	FIOTIN DI	BEFORE THE BLIC SERVICE COMMISSION	R.
2	FLORIDA FOR	SHIC SERVICE COMMISSION	TECENA
3	In the Matter of:		DEC KON
4		DOCKET NO. 110138-EI	FIECENCED 11 DEC 15 COMMUNIC AMIL: 02 COMMUNICS SIGN
5	PETITION FOR INCREAS RATES BY GULF POWER		CLERSSION CO
6	MILS BI GOLF FOWER		
7			
8		Volume 2	
9	Pages	s 250 through 402	
10	PROCEEDINGS:	HEARING	
11	COMMISSIONERS		
12	PARTICIPATING:	CHAIRMAN ART GRAHAM COMMISSIONER LISA POLAK EDGAR	
13		COMMISSIONER RONALD A. BRISE COMMISSIONER EDUARDO E. BALBIS	
14		COMMISSIONER JULIE I. BROWN	
15	DATE:	Monday, December 12, 2011	
16	TIME:	Commenced at 2:00 p.m. Concluded at 4:30 p.m.	
17	LOCATION:	Betty Easley Conference Center	
18		Room 148 4075 Esplanade Way	
19		Tallahassee, Florida	
20	REPORTED BY:	MICHELLE SUBIA, RPR Notary Public in and for	
21		the State of Florida at Large	
22	APPEARANCES:	(As heretofore noted.)	
23			
24			
25	FLORIDA PU	BLIC SERVICE COMMISSION MENT NUMBER - DA	<b>.</b>
		08965 DEC 15	

FPSC-COMMISSION CLERK

1       INDEX         2       WITNESSES         3       PAGE NO.         4       NAME: PAGE NO.         5       PAGE NO.         6       R. SCOTT TEEL         7       Cross Examination by Mr. Wright Redirect Examination by Mr. Melson         9       JAMES H. VANDER WEIDE, Ph.D.         9       JAMES H. VANDER WEIDE, Ph.D.         9       Direct Examination by Mr. Melson         10       Ciross Examination by Mr. Melson         296       347         11       Cross Examination by Mr. Melson         296       347         11       Cross Examination by Mr. Melson         296       379         12       33         14       15         15       16         17       18         19       19	Г		
3ANAME:PAGE NO.5R. SCOTT TEEL2547Cross Examination by Mr. Wright2547Redirect Examination by Mr. Melson27589JAMES H. VANDER WEIDE, Ph.D.29610Direct Examination by Mr. Melson34711Cross Examination by Mr. Melson34712Cross Examination by Mr. Moglothlin35013141516171814	1	<u>INDEX</u>	
4NAME:PAGE NO.5R. SCOTT TEEL2547Cross Examination by Mr. Wright Redirect Examination by Mr. Melson27589JAMES H. VANDER WEIDE, Ph.D.29610Direct Examination by Mr. Melson Cont' Direct Examination by Mr. Melson 34734711Cross Examination by Mr. Melson 	2	WITNESSES	
56R. SCOTT TEEL7Cross Examination by Mr. Wright Redirect Examination by Mr. Melson9JAMES H. VANDER WEIDE, Ph.D.29610Direct Examination by Mr. Melson Cont' Direct Examination by Mr. Melson Cross Examination by Mr. Moglothlin Cross Examination by Mr. Moyle131415161718	3		
6R. SCOTT TEEL2547Cross Examination by Mr. Wright Redirect Examination by Mr. Melson2758	4	NAME :	PAGE NO.
7Cross Examination by Mr. Wright Redirect Examination by Mr. Melson254 27589JAMES H. VANDER WEIDE, Ph.D.29610Direct Examination by Mr. Melson Cont' Direct Examination by Mr. Melson 347 Cross Examination by Mr. McGlothlin Cross Examination by Mr. Moyle37912131415161718	5		
Redirect Examination by Mr. Melson2759JAMES H. VANDER WEIDE, Ph.D.29610Direct Examination by Mr. Melson29610Cont' Direct Examination by Mr. Melson34711Cross Examination by Mr. McGlothlin35012Cross Examination by Mr. Moyle379131415161718	6	R. SCOTT TEEL	254
89JAMES H. VANDER WEIDE, Ph.D.29610Direct Examination by Mr. Melson29610Cont' Direct Examination by Mr. Melson34711Cross Examination by Mr. McGlothlin35012379131415161718	7		
10Direct Examination by Mr. Melson296 Cont' Direct Examination by Mr. Melson34711Cross Examination by Mr. McGlothlin350 Cross Examination by Mr. Moyle37912131415161718	8	Redirect Examination by Mr. Merson	275
Cont' Direct Examination by Mr. Melson 347 Cross Examination by Mr. McGlothlin 350 Cross Examination by Mr. Moyle 379 12 13 14 15 16 17 18	9	JAMES H. VANDER WEIDE, Ph.D.	296
11Cross Examination by Mr. McGlothlin350 3791213131415161718	10		
12 13 14 15 16 17 18	11	Cross Examination by Mr. McGlothlin	350
14 15 16 17 18	12	cross Examination by Mr. Moyre	579
15 16 17 18	13		
16 17 18	14		
17 18	15		
18	16		
	17		
19	18		
	19		
20	20		
21	21		
22	22		
23	23		
24	24		
25	25	FLORIDA PUBLIC SERVICE COMMIS	STON

1	<del></del>		EXHIBITS		
Т			EVUIDIIS		
2	NUMBER:			ID.	ADMTD.
3	10	_			280
4	11 12	JVW-1 JVW-2		347 347	
	86			• - ·	282
5	87 88				283 283
6	89				283
-	90				283
7	91 92				284 284
8	94				284
9	95				284
9	96 97				284 285
10	98				287
11	99 100				287 287
	101				287
12	102				287
13	103 104				288 288
	105				288
14	106 107				289 289
15	108				289
16	109 110				289 289
ΤQ	110				289
17	112				289
18	113 114				289 290
	115				290
19	116 117				290 290
20	119				290
21	120				291
22					
23					
24					
25		FLORIDA PUBI	LIC SERVICE	COMMISSION	

ſ			
1	EXHIBITS		
2	NUMBER:	ID.	ADMTD.
3	152 157		291 292
4	173 174 '10/11 PEF Earnings Reports	257	292 281 281
5	175 PFL 10-K Documents 176 PEF 10-K Documents	262 262	281 281 281
6	177Stock Price Summaries178FCC Order No 218 & 251	266 365	281
7	179 STB Decision 180 IA Tax Auth. Rules	369 371	
8	181 3/26/08 MO PSC Order 182 5/22/07 MO PSC Order	372 374	
9	183 7/30/08 MO PSC Order	376	
10			
11			
12			
13			
14			
15			
16			
17			
18	CERTIFICATE OF REPORTER		402
19			
20			
21			
22			
23			
24			
25	FLORIDA PUBLIC SERVICE COMMI	SSION	

1 PROCEEDINGS 2 (Transcript follows in sequence from 3 volume 1.) 4 CHAIRMAN GRAHAM: Major, I think we left off 5 on you with this witness, if you have any questions 6 of him. 7 MAJOR THOMPSON: No questions, sir. 8 CHAIRMAN GRAHAM: Mr. Wright. 9 MR. WRIGHT: Thank you, Mr. Chairman. 10 Thereupon, R. SCOTT TEEL 11 12 was called as a witness, having been previously duly 13 sworn, was examined and testified as follows: 14 CROSS EXAMINATION BY MR. WRIGHT: 15 16 Q Good afternoon, Mr. Teel. 17 Α Hello Schef. I don't have a whole lot of questions for you. 18 0 19 I will ask you to take a look at a few exhibits, and I 20 would like to start with this. Will you agree that Gulf Power collects 21 22 approximately 66 percent of its total retail revenues 23 through cost recovery charges or similar line items such 24 as gross receipts taxes and franchise fee charges? 25 А No, I can't agree to that number exactly. But FLORIDA PUBLIC SERVICE COMMISSION

I know that number has increased over the years as our 1 commodity prices and environmental compliance 2 obligations have increased. 3 Okay. Do you know what the number is? Q 4 I don't know what the number is exactly, no. 5 Α Okay. Do you have any basis to dispute the 6 Q 7 number 66 percent? I don't have a basis to dispute it, but I 8 А can't agree with it. I don't have those numbers in 9 front of me. 10 Okay. I asked Mr. Crosswhite what had Q 11 happened to the company's revenues from 2002 to the 12 present during which time your nominal base rates had 13 14 not increased. Do you know what your total revenues were or 15 your base rate revenues were in 2002? 16 17 Α I can find that, give me one second. Thank you. 18 Q Actually, no, my numbers only go back to 2003. 19 Α 20 My numbers for base revenues are approximately 21 \$412 million. They grew to approximately 435 in 2007 and have since dropped to 422 in 2010. 22 23 Q Thank you. 24 Do you know your total revenue numbers for the same time period? 25 FLORIDA PUBLIC SERVICE COMMISSION

Α I do not have those, no. 1 Thank you. 2 Q Given that you are asking for an increase for 3 4 rates, would it be fair to conclude that your costs per 5 unit of sales are increasing? 6 Α Yes, I would say that's probably fair. 7 Okay. Would it be fair to conclude that your Q overall revenue per kilowatt hour sold has increased 8 9 since 2002? 10 А Yes. Yes. Yes. That's true. So when you were talking about your costs, the Q 11 12 company's efforts to defer the rate case, would it be accurate to say that you've undertaken to control costs 13 but that cost has still increased? 14 15 Α I'm sorry, I missed the last part. In light of your and other witnesses' 16 Q 17 assertions that the company has undertaken to defer this rate case, would it be more accurate to say that the 18 19 company has controlled costs rather than reducing costs? 20 Α No, there are instances where over the past 21 several years we have not only controlled costs but we 22 have cut costs on a sustainable basis. 23 I would reference in 2009 where we did not have any merit raises for our employees, those savings 24 25 will be sustainable. On the same token, some of the FLORIDA PUBLIC SERVICE COMMISSION

costs that we controlled and actually cut associated 1 with some of our medical benefits will produce 2 3 sustainable savings as well. But overall your costs have increased? Q 4 5 A Oh, yes. I want to talk about earnings in your 6 0 7 testimony at pages 15 and 16 of your testimony that you discussed with Mr. McGlothlin for a bit. 8 MR. WRIGHT: Mr. Chairman, Mr. Sayler has 9 10 kindly agreed to assist me by handing out an item 11 that I would like to mark as an exhibit, I think it may be 174. Short title would be PEF Earnings 12 Surveillance Reports 2010 and 2011. 13 (Exhibit No. 174 was marked for 14 15 identification.) BY MR. WRIGHT: 16 Mr. Teel, Mr. McGlothlin had you look at some 17 Q excerpts of pages from, I think, three of Florida Power 18 19 & Light Company's Earning Surveillance Reports. If you would take a look at these, I expect that you'll 20 21 recognize that they are the corresponding earnings 22 Surveillance Reports for Progress Energy Florida for 23 December 2010 and July 2011. Does that look like what these are to you? 24 25 А I have not reviewed the entire package here FLORIDA PUBLIC SERVICE COMMISSION

but, yes, I recognize the form of the first page. 1 Well, if you'll turn to the third page, 2 0 counting the cover sheet as page one, at the top that 3 4 says, "Progress Energy Florida Rate of Return Report 5 Summary December 2010, " correct? Yes, that's the page I'm referencing. А 6 Okay. If you'll look down at the bottom on 7 Q FPSC adjusted basis, that shows a return on common 8 9 equity of 11.24 percent, correct? That's correct. 10 А If you would turn about halfway back, you'll Q 11 find another cover letter dated September 14, 2011 12 following which there's a page that looks like the one 13 we were just talking about. The difference in the 14 15 header is that it's for July of 2011. I'm there. 16 А Okay. And you'll agree that that reflects a 17 0 return on common equity on FPSC adjusted basis of 11.07 18 19 percent, correct? Yes. 20 А During the time since the Florida Public 21 Q Service Commission set FPL's rates using a 10.0 percent 22 23 ROE and set Progress Energy Florida's rates using a 10.5 percent ROE, will you agree that both FPL and 24 25 Progress Energy Florida have been able to issue FLORIDA PUBLIC SERVICE COMMISSION

1 securities?

2	A Yes.
3	MR. WRIGHT: Mr. Chairman, these I don't need
4	marked as an exhibit inasmuch as they are
5	Commission orders. But I do want to have them
6	shown to the witness and for you all to see them
7	for demonstrative purposes.
8	BY MR. WRIGHT:
9	Q By way of introduction, I will aver to you
10	that these are copies of two fairly recent Commission
11	orders, one dated December 8, 2010 and one dated
12	January 31, 2011, authorizing Progress Energy Florida
13	and Florida Power & Light Company respectively to issue
14	securities on a going-forward basis.
15	I bet you're familiar with PSC orders, are you
16	not, Mr. Teel?
17	A Some of them, yes.
18	Q Okay. Are you familiar with go toward the
19	very end of the order, there are some statements that
20	say, "Ordered that the following actions are approved or
21	taken by the Commission."
22	A Yes.
23	Q If I could ask you to look at page eight of
24	the FPL order, which is Order Number PSC-11-0086 issued
25	January 31, 2011. Do you agree that the Commission FLORIDA PUBLIC SERVICE COMMISSION

authorized FPL to issue equity and debt securities 1 2 and/or to assume liabilities in an aggregate amount not 3 to exceed \$6.1 billion during 2011? 4 Α Yes, I see that now. 5 Q And would you also agree that the Commission 6 authorized FPL to have outstanding at any point in time 7 during 2011 and 2012 short-term securities in an amount 8 not to exceed \$4.0 billion? 9 MR. MELSON: Objection, relevance. What the 10 Commission has authorized FPL to do has nothing to do with whether FPL can actually issue securities 11 12 or at what price? 13 CHAIRMAN GRAHAM: Mr. Wright. MR. WRIGHT: Well, in the first instance, it's 14 15 completely relevant to his attempt to criticize the 16 declining regulatory environment in Florida. 17 Companies being able to issue securities with the 18 Commission's approval are certainly not the 19 hallmarks of declining regulatory environments; 20 they are the hallmark of constructive regulatory environment. And we will in fact get to FPL and 21 22 Progress' 10-Ks to their actual ability to issue 23 securities momentarily. MR. MELSON: Commissioner, the fact that the 24 25 Commission authorizes, as they do every year for FLORIDA PUBLIC SERVICE COMMISSION

every electric utility, the issuance of securities 1 has no relevance to any of the issues in this case. 2 CHAIRMAN GRAHAM: I disagree. I think he's 3 4 making -- he's getting to a point. I'll let him 5 continue. MR. WRIGHT: Thank you, Mr. Chairman. 6 7 BY MR. WRIGHT: 8 Similarly, Mr. Teel, if you would look towards Q the back of the Progress order, which is order 9 PSC-10-0717 dated December 8th, 2010. If you would look 10 at the bottom of page three of that order, do you agree 11 that it says that the Commission has authorized Progress 12 to issue equity, long-term debt, and other long-term 13 obligations during 2011 up to a billion dollars? 1415 Yes, I see that. А 16 Q And similarly on the top of page four, will you agree that the order shows that the Commission has 17 authorized Progress to have outstanding during 2011 and 18 2012 short-term securities and obligations up to a 19 20 billion dollars? I see that as well. 21 А 22 MR. WRIGHT: Mr. Chairman, Mr. Sayler is 23 kindly distributing some excerpts from Progress Energy Corporation's 2010 Form 10-K and also FPL's 24 25 2010 Form 10-K. These will go to the actual FLORIDA PUBLIC SERVICE COMMISSION

issuance of securities, and at least with respect 1 to FPL's relative to their dividends. 2 And, again, the proffer is that their ability 3 to issue securities and increase their dividends is 4 consistent with constructive regulation, so thank 5 6 you. And just so you all know, these reports are 7 pretty good sized. I do have one copy of the 8 total -- the complete 10-K for each utility. But 9 to save a couple of trees, I did not make 20-odd 10 11 copies of those lengthy documents. CHAIRMAN GRAHAM: Does it matter to you which 12 is which? We're on number -- Florida Power & Light 13 with 175? 14 15 MR. WRIGHT: Yes, sir, that would be great. (Exhibit No. 175 was marked for 16 identification.) 17 CHAIRMAN GRAHAM: And Progress Energy will be 18 19 176. (Exhibit No. 176 was marked for 20 identification.) 21 BY MR. WRIGHT: 22 Mr. Teel, if I could ask you to look at what 23 0 24 has now been marked for identification Exhibit 175, 25 that's an excerpt from FPL's 2010 Form 10-K. And I'm FLORIDA PUBLIC SERVICE COMMISSION

betting you're familiar with 10-Ks; is that correct? 1 2 А Yes, I am. If I could ask you to look toward the 3 0 Okay. bottom of numbered page 44, the next to the last 4 paragraph there states that, in essence, "In 2009 and 5 2010 Nextera Energy received gross proceeds through the 6 7 sale and issuance of common stock of a total of \$400 million, 200 million -- 240 million in 2010 and 8 160 million in 2009; is that correct? 9 Α That is correct. 10 And given that FPL has reported this in its 11 Q 12 10-K, you would accept this as true, correct? 13 А Certainly. If I could next ask you to turn three pages 14 Q 15further back into this document to what is numbered page 47, there is a table of debt issuances. And I 16 17 think you'll -- by looking at it fairly quickly, if you look in the company column, you'll see two entries for 18 19 FPL that indicate that in February of 2010 FPL issued 20 \$500 million in first mortgage bonds and in December of 21 2010 FPL issued \$400 million in first mortgage bonds, 22 correct? 23 I see that as well. А Okay. And you would accept these as true 24 Q 25 representations by FPL, correct? FLORIDA PUBLIC SERVICE COMMISSION

1	A Yes.
2	Q Finally, if I could ask you to look at page 48
3	just below the footnotes there, there is a paragraph
4	headed "Covenants" and three sentences in there, there
5	are some statements that indicate that during the first
6	quarter of 2010, Nextera Energy increased the quarterly
7	dividends on its common stock from 47 and a quarter
8	cents to 50 cents a share and then in February of '11
9	they further increased the quarterly dividend on the
10	common stock from 50 to 55 cents a share, correct?
11	A I'm sorry, which page are you on?
12	Q I'm sorry, it is numbered page 48. I may have
13	picked up speed, I apologize.
14	A Yes, I'm there. I see that.
15	Q Okay. If you could look at the numbers in the
16	paragraph that's headed "Covenants." Do you agree that
17	it shows that Nextera has increased their quarterly
18	dividends on common equity from 47 and a quarter to 50
19	cents a share in early 2010 and then in February of '11
20	they further increased it from 50 cents a share to 55
21	cents a share?
22	A Yes.
23	Q Thank you.
24	If I could ask you now to look at what has
25	been marked for identification as Exhibit 176, which is FLORIDA PUBLIC SERVICE COMMISSION

1	likewise an excerpt from Progress Energy's
2	corresponding well, I shouldn't say an excerpt but
3	from Progress Energy's 10-K.
4	If I could ask you to turn to the last page in
5	the Exhibit 176, which is numbered page 77 of their 2010
6	Form 10-K. Just looking in 2010, the second bullet
7	point indicates that in March of 2010 Progress Energy
8	Florida issued \$250 million of first mortgage bonds and
9	another \$350 million of first mortgage bonds due at a
10	later date, correct?
11	A Yes.
12	<b>Q</b> And the next bullet indicates that Progress
13	Energy Florida and Progress Energy Carolinas entered
14	into new \$750 million revolving credit agreements?
15	A Yes.
16	Q And finally the last bullet there indicates
17	that Progress Energy, the parent corporation, issued
18	approximately 12.2 million shares of its common stock
19	during 2010, correct?
20	A Yes.
21	Q And based on the fact these are $10-Ks$ , you
22	would accept these as true representations, correct?
23	A I would.
24	Q Okay.
25	MR. WRIGHT: Mr. Chairman, Mr. Sayler is FLORIDA PUBLIC SERVICE COMMISSION

kindly distributing another document that I would 1 like marked as an exhibit. And these are simply 2 stock price summaries for Nextera Energy, 3 4 Incorporated, the parent of FPL, and Progress Energy, Incorporated, the parent of Progress Energy 5 Florida for 2008 through 2010 which I obtained from 6 7 the Morningstar website. CHAIRMAN GRAHAM: So we'll call this 177. 8 9 MR. WRIGHT: Yes, please, sir. (Exhibit No. 177 was marked for 10 identification.) 11 CHAIRMAN GRAHAM: FPL and Progress stock 12 13 prices 2008 through 2011? MR. WRIGHT: Yes, sir. Thank you. 14 15 BY MR. WRIGHT: Mr. Teel, I will bet that you're familiar with 16 Q 17 the underlying facts here, but will you agree that this document shows that both FPL and Progress' stock prices 18 have increased over the last year and a half? 19 20 Α Yes. Now I'm really getting to the point here. 21 Q 22 Would you agree that where a company's stock prices 23 increase, where they're able to maintain or increase their dividends and issue adequate securities to meet 24 25 their capital needs, would you agree that that's a FLORIDA PUBLIC SERVICE COMMISSION

1	hallmark of a constructive regulatory environment?
2	A I would agree that the ability of both
3	Progress and FP&L to attract capital today is a function
4	and part of a stable economic environment.
5	My testimony is that we need access to capital
6	continuously in all market conditions. The market
7	conditions over the past couple of years in which
8	Mr. Wright references here, access to capital has been
9	available for these utilities, even those with BBB
10	credit ratings.
11	Q And you would agree that they have had
12	adequate access to capital continuously over the last
13	year and a half since their rate case orders in March of
14	2010?
15	A Yes, I would agree with that.
16	Q And they're not in for rate relief now, are
17	they?
18	A Not currently, no.
19	Q From that, I would deduce that they expect to
20	be able to well, I'm going to drop that because
21	they're operating under settlements.
22	I would deduce that they're not in any danger
23	of operating below the floor of their settlement
24	agreements; would you agree with that?
25	A Could you repeat that question again?
	FLORIDA PUBLIC SERVICE COMMISSION

Are you aware of the settlement agreements Q 1 2 that FPL and Progress entered into with the consumer 3 parties to their rate cases? Yes, I am aware. And in FP&L's case, my 4 А 5 understanding is they had a surplus depreciation reserve and as such they are permitted to use that to their 6 discretion in order to meet their return on equity. 7 Are you aware that those settlement agreements 8 0 9 include an ROE floor that if either utility were to fall below that floor they would be allowed under the 1011 settlement stipulation to come to the Commission for rate relief? 12 13 That's my understanding, yes. Α Based on looking at their earning surveillance 14 0 15 reports and the other data we've just been talking about, you don't think they are in any danger of having 16 17 to come in for that kind of relief, do you? No, I do not believe they are. FP&L, again, 18 А 19 does have the discretion to use their depreciation reserve surplus in order to avoid that situation. 20 Q Both you and -- this is my last little bit --21 22 both you and Mr. Crosswhite have talked about your 23 reliance on Dr. Vander Weide's testimony for your 11.7 percent ROE request, correct? 24 Repeat that one more time for me, please. 25 Α

FLORIDA PUBLIC SERVICE COMMISSION

268

Isn't it correct that both Mr. Crosswhite and 1 Q 2 yourself have stated that you have relied on Dr. Vander Weide's testimony to support your 11.7 percent ROE 3 4 request? 5 That's correct; he is our cost of equity А 6 expert. 7 Did you review the proceedings in the last 0 8 Progress Energy rate case, Docket 090079-EI? 9 Α Not completely, no. Are you aware of what ROE Dr. Vander Weide 10 Q advocated for in that case? 11 12 Α No, I am not. Well, I will aver to you -- and I can show you 13 Q the order if you want to see it -- that he advocated for 14 an ROE of 12.4 percent. Did you know that? 15 16 Α No, I did not know that. Okay. And similarly I guess you didn't know 17 Q what Professor Woolridge advocated for in that case 18 either, did you? 19 20 А No, I do not know that. 21 Q Thank you. MR. WRIGHT: Thank you, Mr. Chairman. 22 Thank 23 you, Mr. Teel. CHAIRMAN GRAHAM: Staff. 24 25 MS. BARRERA: We have no questions for this FLORIDA PUBLIC SERVICE COMMISSION

1 witness. CHAIRMAN GRAHAM: Commissioners. Commissioner 2 Balbis. 3 COMMISSIONER BALBIS: Thank you, Mr. Chairman, 4 and thank you, Mr. Teel, for testifying today. I 5 6 have a few questions for you. 7 The first set of questions has to do with the 8 storm accrual or the storm reserve. Are you aware that utilities -- some utilities have a funded 9 reserve and some an unfunded reserve? 10 THE WITNESS: Yes, I'm aware of that. 11 12 COMMISSIONER BALBIS: Is Gulf's reserve, is that a funded or an unfunded reserve? 13 THE WITNESS: Yes, it is funded. 14 15 COMMISSIONER BALBIS: Okay. And does the 16 Commission require Gulf Power to keep that a funded 17 reserve or is it at the discretion of the utility? 18 THE WITNESS: I'm not positive that I can 19 answer that question. I know that it is funded 20 though. COMMISSIONER BALBIS: And the difference 21 22 between a funded and unfunded reserve would be a 23 funded reserve -- and I apologize, I'm an engineer, not an accountant -- but a funded reserve means 24 25 there's actual dollars in an account that's set

FLORIDA PUBLIC SERVICE COMMISSION

aside for use for storm recovery, correct? 1 2 THE WITNESS: That's correct, we have cash in 3 the bank. COMMISSIONER BALBIS: And can you explain what 4 an unfunded reserve would be? 5 THE WITNESS: An unfunded reserve then 6 alternatively would be one that does not set aside 7 funds specifically for a storm reserve, rather the 8 9 company has the money and collects that money; however, it is not set aside in effect in trust in 10 the event of a storm. 11 COMMISSIONER BALBIS: Okay. Thank you. 12 And to change gears a little bit, you 13 mentioned in your testimony about the Crist Turbine 14 Upgrade Project, Turbines 6 and 7? 15 THE WITNESS: Yes. 16 COMMISSIONER BALBIS: And Gulf is requesting 17 that these costs or a portion of these costs be 18 recovered through base rates, correct? 19 THE WITNESS: Yes, that's correct. 20 COMMISSIONER BALBIS: And not in the ECRC 21 clause? 22 THE WITNESS: Those costs relating to the 23 investment that have already gone into service have 24 been recovered through the environmental clause 25 FLORIDA PUBLIC SERVICE COMMISSION

during this proceeding.

1

Now, those investments would be moved into 2 base rates, as would those costs for turbine 3 upgrades that have not been moved into service yet. 4 COMMISSIONER BALBIS: And how much of the 5 costs were recovered through the ECRC clause? And 6 I believe the project started in '07 or '08. When 7 8 did the project start? THE WITNESS: I can't recall the exact dates 9 that those projects were started. And I would 10 defer you to witness McMillan on the exact amounts 11 in the environmental clause, as well as those 12 amounts that are -- that will be recovered in base 13 14 rates. 15 COMMISSIONER BALBIS: Okay. So you state that Mr. McMillan would be a better witness to discuss 16 17 that project? THE WITNESS: Yes. 18 COMMISSIONER BALBIS: Okay. Because my 19 concern is that this Commission, I believe, with 20 FPL's Scherer Units, that we decided that that is 21 not an appropriate cost to be recovered through 22 ECRC. 23 My question to you, and also I'll ask 24 Mr. McMillan, is how much have you recovered 25 FLORIDA PUBLIC SERVICE COMMISSION

through the ECRC clause and how is that different 1 2 from what the Commission decided with FPL's Scherer 3 units? THE WITNESS: Again, I can't answer the 4 5 question of how much has been recovered through the environmental clause. We have been recovering 6 7 those through the environmental clause as a result of the approval of our environmental clause rates 8 9 in the past. 10 Since the Florida Power & Light decision, then, you know, in recognition of those turbine 11 upgrades should be recovered through base rates, 12 13 now we are proposing also to move those into base 14 rates. COMMISSIONER BALBIS: Okay. Thank you. 15 And the last question that I -- and I think 16 17 you've already covered this -- but just to 18 summarize, the current Commission-approved ROE for Gulf Power, including the performance reward, is 12 19 20 percent; is that correct? THE WITNESS: That's correct. 21 COMMISSIONER BALBIS: And in this rate case, 22 23 you're requesting a reduction to 11.7 percent? THE WITNESS: 11.7 percent, yes, is the cost 24 25 of equity we're proposing. FLORIDA PUBLIC SERVICE COMMISSION

1	COMMISSIONER BALBIS: Okay. Thank you. I
2	have nothing further.
3	CHAIRMAN GRAHAM: Commissioner Brown.
4	COMMISSIONER BROWN: Thank you. Good
5	afternoon. I just have a few questions regarding
6	cost saving measures that the company has employed.
7	In your direct testimony on page eight, lines
8	three and four I'll wait till you get there
9	you address that Gulf has implemented restrictions
10	on its hiring in 2009.
<b>1</b> 1	Is that currently still in place and if so can
12	you elaborate on what those restrictions are?
13	THE WITNESS: No, those restrictions are not
14	in place now. We are in the process and close to
15	hiring up to our full complement. Prior to that in
16	2008 and 2009, we restricted hiring, and the way
17	that we managed that was that any hiring had to be
18	approved by the officer of that department.
19	COMMISSIONER BROWN: Okay. Thank you. And
20	also on that same page, you state that there have
21	not been merit raises to nonunion employees. Is
22	that for every year since 2009 or just in 2009?
23	THE WITNESS: No, that is only in 2009.
24	However, those reductions and those merit raises,
25	actually, they will produce sustainable savings
	FLORIDA PUBLIC SERVICE COMMISSION

1 because we're not compounding on a larger number. 2 COMMISSIONER BROWN: Okay. What about cost of 3 living adjustments, have employees, nonunion as 4 well as regular employees, union employees, been 5 receiving cost of living adjustments? 6 THE WITNESS: Each year we establish what we 7 call a merit raise amount, which is based on market 8 compensation levels. So, yes, I think that would 9 incapsulate and be expected to cover cost of living adjustments. And that's what we passed on in 2009 10 11 and have since picked that back up in 2010. 12 COMMISSIONER BROWN: What is the percentage 13 currently in place? THE WITNESS: I am not aware of what that 14 percentage will be in 2012. That percentage may 15 vary from year to year based on market conditions. 16 17 COMMISSIONER BROWN: Thank you. 18 THE WITNESS: Uh-huh. CHAIRMAN GRAHAM: Redirect. 19 20 MR. MELSON: Just a few, Mr. Chairman. 21 REDIRECT EXAMINATION BY MR. MELSON: 22 23 0 You were asked a series of questions first by Mr. McGlothlin and by Mr. Wright about the earnings of 24 25 Florida Power & Light Company and Progress Energy FLORIDA PUBLIC SERVICE COMMISSION

1 Florida since their last rate case. 2 Are you aware of whether either company or 3 both entered into settlements after the conclusion of 4 those cases? 5 Α Yes, I'm aware that Florida Power & Light did 6 enter into a settlement, and as a part of that 7 settlement they were able to use at their discretion a 8 depreciation reserve surplus in order to achieve a 9 return that they otherwise would not be able to. So 10 that is the primary factor in their being able to achieve an 11 percent ROE. 1112 Q Do you know whether Progress entered into a similar settlement that allowed them to amortize a 13 depreciation reserve to affect their earnings? 14 No, I'm not aware of that. 15А Mr. Wright started a question and then I think 16 Q 17 he sort of withdrew it. But to be clear, are you aware of whether the FPL settlement would prohibit them from 18 filing a rate case prior to the end of -- well, are you 19 20 aware of what the FPL settlement provides with regards 21 to filing a rate case? My understanding is they cannot file a rate 22 А 23 case before 2012. 24 MR. MELSON: And, Commissioners, just to put 25 the parties on notice, we will be asking in our FLORIDA PUBLIC SERVICE COMMISSION

brief for the Commission to take official 1 recognition of Order 11-0089 which approved a 2 settlement in the Florida Power & Light case after 3 the Commission's decision and a similar Order 4 10-0398 which also approved a post-decision 5 settlement in the Progress Energy Florida case. 6 CHAIRMAN GRAHAM: I remember it well. 7 8 BY MR. MELSON: With regard to the parent-debt adjustment, 9 0 Ms. Kaufman asked you if it was possible to trace 10 dollars. Do you remember that question? 11 12 Α I do. Is the presumption in the parent-debt 13 0 adjustment rule about imputing debt a rebuttable 14 presumption or an irrebuttable presumption? 15 Α It is a rebuttable presumption. 16 If tracing were required, would it be possible 17 Q to rebut the presumption? 18 It would not. If tracing dollars were 19 Α required, the presumption would effectively be 20 irrebuttable. 21 You were asked questions by a couple of the 22 0 intervenors regarding the fact that Gulf has continued 23 to provide good service since mid 2010 when your rates 24 fell below the bottom of the range. 25 FLORIDA PUBLIC SERVICE COMMISSION

1 Why have your returns been low since that 2 time? 3 Our returns have been declining during that А 4 time because we deemed that some of those costs that we 5 were controlling, we could no longer -- we could no 6 longer hold the line on some of that spending. So we 7 have been spending at the levels that we know we need to 8 spend sustainably and our returns therefore have 9 declined below 6 percent now. 10 And what we recognized is that a 6 percent 11 return on equity is simply not sustainable in the 12 long-term. It is not a return that's acceptable for 13 investors. 14If you had attempted to keep your returns up Q 15 by further cutting spending, is it possible that service would have been impacted? 16 Yes. We believe in the long-run service would 17 Α 18 be impacted if we don't spend what we believe is 19 necessary to provide that service. So while we looked 20 for opportunities to control costs and cut some costs 21 during that period of time, the time has come now that 22 we need to get back to that normal level of spending and 23 that level of spending. This reflected in our rate case in order to continue to provide this level of service in 24 25 the long-term. FLORIDA PUBLIC SERVICE COMMISSION

1 0 You were asked a question about the Fitch 2 Credit Report and I believe whether you knew 3 specifically who wrote it. Regardless of who wrote it, 4 do investors rely on -- do debt investors rely on those 5 rating agency reports? 6 Α Yes, they do. And that is the relevant point, 7 is that the opinions of the credit rating agencies do 8 matter. Investors pay attention to them and you can --9 that is demonstrated by the fact that the debt costs for 10 different -- for companies that are rated in different categories are correlated, so you'll see that BBB-rated 11 companies will pay higher debt costs than an A-rated 12 13 company. So clearly the credit rating agencies' reports 14 matter and investors are influenced by them. 15 MR. MELSON: That's all I've got, Mr. Chairman. And Gulf would move Exhibit 10. 16 17 MS. KAUFMAN: Mr. Chairman, FIPUG would object to Exhibit 10. I think it's Mr. Teel's Schedule 7, 18 19 8, and 9, which are the rating reports that we have 20 discussed at some length here. No witness has been 21 produced that we can cross examine about those 22 reports and we don't think that they meet any of 23 the hearsay -- clearly they're hearsay, they don't meet the hearsay objection, and we would object to 24 25 those exhibits which are a subset of Staff FLORIDA PUBLIC SERVICE COMMISSION

Exhibit 10. 1 CHAIRMAN GRAHAM: I'm going to allow the 2 3 reports. 4 (Exhibit No. 10 received in evidence.) 5 CHAIRMAN GRAHAM: Any other exhibits to go in? MR. McGLOTHLIN: OPC moves Exhibit 173, which 6 7 was the FPL Surveillance Report. 8 MR. WRIGHT: The Retail Federation moves 9 Exhibit 174, 175, 176, and 177. 10 MR. MELSON: Mr. Chairman, we object to 175 11 and 176 so long as they remain as excerpts. If the 12 Retail Federation wants to put the entire 10-K 13 report in so that we can cite to other things in 14 that report, we would be happy to do that. But 15 we're concerned the witness did not have the full 16 report to review and no basis to judge if those 17 excerpts were taken out of context. 18 CHAIRMAN GRAHAM: Mr. Wright, are you willing 19 to put in the entire 10-K? 20 MR. WRIGHT: Of course, Mr. Chairman. Ι 21 would, out of respect for the environment, ask for 22 leave to do so electronically, if that's okay. 23 CHAIRMAN GRAHAM: That's quite all right. 24 MR. WRIGHT: Thank you, sir. 25 CHAIRMAN GRAHAM: So we will enter 73, Okay. FLORIDA PUBLIC SERVICE COMMISSION

1	74, 75, 76 and 77 173 through 177 into the
2	record.
3	(Exhibit Nos. 173 through 177 received in
4	evidence.)
5	MR. McGLOTHLIN: Mr. Chairman, we also
6	referred to an interrogatory answer that didn't get
7	assigned a hearing exhibit number. I was informed
8	during a break that that particular answer to
9	interrogatory had not been part of the stipulation.
10	During the break we resolved that and I think
11	the other parties will confirm that there is no
12	objection to the interrogatory that I identified
13	or, as I understand it, any answer to interrogatory
14	that's been identified, and staff has agreed that
15	that can come into the record.
16	CHAIRMAN GRAHAM: So you're telling me that I
17	gave you too much time during the break you
18	couldn't just eat, you had to do more stuff? Is
19	that what I'm hearing you saying, Mr. McGlothlin?
20	MR. McGLOTHLIN: We got some work done.
21	CHAIRMAN GRAHAM: Ms. Klancke.
22	MS. KLANCKE: I think it's a little bit more
23	nuance than that, though I would love for that to
24	be the case.
25	Over the break, as OPC specified, the parties FLORIDA PUBLIC SERVICE COMMISSION

were able to stipulate to the inclusion of the 1 2 staff interrogatories, or all of the 3 interrogatories rather, listed on the comprehensive 4 exhibit list; however, FIPUG, with the exception of 5 certain exhibits, which FIPUG has some objection 6 to. 7 And just for the clarity of the record, I 8 would like to go through the comprehensive exhibit 9 list because all of them will be stipulated but for These will be independently litigated, if 10 these. necessary, and moved into the record in conjunction 11 12 with the applicable witness. 13 CHAIRMAN GRAHAM: I'll tell you what, let's -staff exhibits start on page 14; is that correct, 14 15 Number 86? 16 That's correct, 14. MS. KLANCKE: 17 CHAIRMAN GRAHAM: Well, let's go through these things one at a time and you tell me which ones are 18 in and which ones are only in in pieces. 19 20 MS. KLANCKE: Okay. Exhibit Number 86 is 21 completely in with the exception of numbers 19, 20, 22 and 21 which are withdrawn. 23 CHAIRMAN GRAHAM: Okay. (Exhibit No. 86 received in evidence.) 24 25 MS. KLANCKE: Number 87 is now stipulated and FLORIDA PUBLIC SERVICE COMMISSION

entered in in its entirety. 1 CHAIRMAN GRAHAM: Okay. 2 (Exhibit No. 87 received in evidence.) 3 MS. KLANCKE: 88 similarly entered in its 4 5 entirety. (Exhibit No. 88 received in evidence.) 6 MS. KLANCKE: With respect to 89, it will be 7 entered into the record with the exception of 8 Exhibit Nos. 38 and 39. 9 MS. KAUFMAN: If I can interrupt, Ms. Klancke, 10 we will withdraw our objection to 38 and 39. 11 MS. KLANCKE: Excellent. Well, then this will 12 be entered in in its entirety. 13 CHAIRMAN GRAHAM: Okay. 14 (Exhibit No. 89 received in evidence.) 15 16 MS. KLANCKE: Number 90 is entered in in its 17 entirety. CHAIRMAN GRAHAM: Okay. 18 (Exhibit No. 90 received in evidence.) 19 20 MS. KLANCKE: Number 91 is entered in in its entirety with the exception of number 85 which was 21 withdrawn. 22 CHAIRMAN GRAHAM: Is only 85 withdrawn? 23 What about 75 through 77 and 85 through 90? 24 MS. KLANCKE: All in. 25 FLORIDA PUBLIC SERVICE COMMISSION

CHAIRMAN GRAHAM: Okay. So 85 is the only one 1 2 that's out? MS. KLANCKE: Yes, sir. 3 (Exhibit No. 91 received in evidence.) 4 MS. KLANCKE: Exhibit Number 92 is in in its 5 entirety with the exception of 95, 96, 97, 99, and 6 100, those are withdrawn. 7 CHAIRMAN GRAHAM: Okay. 8 (Exhibit No. 92 received in evidence.) 9 MS. KLANCKE: 93 is withdrawn. 10 CHAIRMAN GRAHAM: Okay. 11 MS. KLANCKE: 94 is entered in in its 12 entirety. 13 CHAIRMAN GRAHAM: Okay. 14 (Exhibit No. 94 received in evidence.) 15 MS. KLANCKE: 95 is entered in in its 16 17 entirety. CHAIRMAN GRAHAM: Okay. 18 (Exhibit No. 95 received in evidence.) 19 MS. KLANCKE: 96 is entered in in its 20 21 entirety. (Exhibit No. 96 received in evidence.) 22 MS. KLANCKE: 97 is entered in with the 23 exception of 145, 146, 147, 149, 150, 153, 155, 24 157, and 158, which are withdrawn. 25 FLORIDA PUBLIC SERVICE COMMISSION

MR. McGLOTHLIN: Excuse me, Ms. Klancke, you
left off 151. Is that in fact in or is that still
withdrawn?
MS. KLANCKE: That is still withdrawn. I
apologize.
(Exhibit No. 97 received in evidence.)
MS. KLANCKE: Number 98, there is a notation
here that
CHAIRMAN GRAHAM: Ms. Klancke, let's go back
and give me that list again on the ones that are
withdrawn on 97.
MS. KLANCKE: Absolutely. 145, interrogatory
response 146, interrogatory response 147, 149, 150,
151, 153, 155, 157, and 158.
CHAIRMAN GRAHAM: So the only thing that's
changed is 142 is off that list?
MS. KLANCKE: That is correct.
CHAIRMAN GRAHAM: Okay. That would have been
easier to say.
MS. KLANCKE: Particularity, I apologize.
With respect to Hearing Exhibit 98, there
was
MR. STONE: Excuse me, Mr. Chairman, I
apologize. I think 142, 143, 144, and 148, 152,
and 154 remain part of Exhibit 97. FLORIDA PUBLIC SERVICE COMMISSION

MS. KLANCKE: With respect to all others that 1 I've identified are withdrawn, that is correct. Ι 2 just specified those items which were withdrawn out 3 of that enumeration. 4 MR. STONE: I may have misunderstood the 5 Chair. I thought you concluded that only 142 6 7 remained. CHAIRMAN GRAHAM: No, I'm just saying on the 8 9 list that we have here, they have a list of all of the ones that have been withdrawn, and the only 10 thing that's changed is number 142 is no longer on 11 that list, everything else is still withdrawn. 12 MR. STONE: You must have been given a 13 different list than we were. 14 MS. KLANCKE: He has the same list. 15 Let me just back it up. Numbers 142 and 152 16 are enumerated in the exhibit description. Of this 17 parenthetical, numbers 145, 146, 147, 149, 150, 18 151, 153, 155, 157, and 158 are withdrawn, the rest 19 20 are in. CHAIRMAN GRAHAM: Is that what you have, 21 Mr. Stone? 22 23 MR. STONE: Yes, I'm good. CHAIRMAN GRAHAM: Okay. 24 With respect to 98, there is a 25 MS. KLANCKE: FLORIDA PUBLIC SERVICE COMMISSION

1	
1	notation with respect to items that were withdrawn,
2	none of those are withdrawn. However, Number 171
3	is stipulated pursuant to the stipulation of
4	witness Buck.
5	CHAIRMAN GRAHAM: So all of 98 is in and 171
6	has been stipulated?
7	MS. KLANCKE: Correct. And it is also in.
8	CHAIRMAN GRAHAM: Okay.
9	(Exhibit No. 98 received in evidence)
10	MS. KLANCKE: Number 99 is all in.
11	(Exhibit No. 99 received in evidence.)
12	MS. KLANCKE: Number 100 is all in.
13	(Exhibit No. 100 received in evidence.)
14	MS. KLANCKE: Number 101 is all in with the
15	exception of number 216 which is withdrawn.
16	(Exhibit No. 101 received in evidence.)
17	MS. KLANCKE: Number 102 FIPUG has
18	specifically made objections with respect to
19	numbers 220, 226, 228, 229, 230, 231, 232, 233 and
20	234. All the rest are in. Okay.
21	CHAIRMAN GRAHAM: Okay.
22	(Exhibit No. 102 received in evidence.)
23	MS. KLANCKE: With respect to 103, FIPUG has
24	specifically objected to number 252. All the rest
25	are in. With respect to FLORIDA PUBLIC SERVICE COMMISSION
	LTOKIDY LODITO SERVICE COMPLESION

1	MR. WRIGHT: Including 256?
2	MS. KLANCKE: I'm getting to it. Numbers 256,
3	257, and 258 have been withdrawn.
4	MR. WRIGHT: Excuse me, Mr. Chairman.
5	CHAIRMAN GRAHAM: Yes, sir.
6	MR. WRIGHT: Will you please ask Ms. Klancke
7	to repeat that. I got a little confused in the
8	first part.
9	CHAIRMAN GRAHAM: You need her to repeat 103?
10	MR. WRIGHT: With respect to 103, yes, sir.
11	MS. KLANCKE: Absolutely.
12	CHAIRMAN GRAHAM: 252 is out, it's being
13	objected by FIPUG, and then 256 through 258 are
14	withdrawn still.
15	MR. WRIGHT: Thank you, Mr. Chairman. Thank
16	you, Ms. Klancke.
17	(Exhibit No. 103 received in evidence.)
18	MS. KLANCKE: With respect to 104, it is in
19	and it has been moved into the record pursuant to a
20	stipulation of witness McGee.
21	(Exhibit No. 104 received in evidence.)
22	MS. KLANCKE: 105 is in in its entirety.
23	(Exhibit No. 105 received in evidence.)
24	MS. KLANCKE: 106, there are no objections
25	with respect to this exhibit; however, only 274 FLORIDA PUBLIC SERVICE COMMISSION
	FIGHTER I GENERAL CONTRIBUTION

should be withdrawn. 1 Okay. 2 CHAIRMAN GRAHAM: (Exhibit No. 106 received in evidence.) 3 MS. KLANCKE: 107 is all in. 4 (Exhibit No. 107 received in evidence.) 5 MS. KLANCKE: 108 is all in. 6 (Exhibit No. 108 received in evidence.) 7 MS. KLANCKE: 109 is all in with the exception 8 of 312 and 316, which have been withdrawn. 9 (Exhibit No. 109 received in evidence.) 10 MS. KLANCKE: 110 is all in. 11 (Exhibit No. 110 received in evidence.) 12 MS. KLANCKE: 111 is in pursuant to a 13 14 stipulation. (Exhibit No. 111 received in evidence.) 15 MS. KLANCKE: And 112 also in pursuant to a 16 17 stipulation. (Exhibit No. 112 received in evidence.) 18 MS. KLANCKE: Exhibit 113 is all in with the 19 exception of items numbers 14, 27, and 79. 20 CHAIRMAN GRAHAM: Okay. 21 (Exhibit No. 113 received in evidence.) 22 MS. KLANCKE: Item Number 77 was also in 23 pursuant to a stipulation. 24 Item Number 114 is all in. 25 Okay. FLORIDA PUBLIC SERVICE COMMISSION

(Exhibit No. 114 received in evidence.) 1 MS. KLANCKE: And I would like to note that 2 with respect to Number 153, this portion was used 3 by OPC as part of their demonstrative exhibit in 4 conjunction with the cross examination of witness 5 Teel, so that perfects any issues with regard to 6 7 that. 115, however, there are specific objections 8 raised by FIPUG with respect to Number 204, 206, 9 207, 208, and 209. The notation with respect to 10 the Items 180 through 182 should be deleted and 11 those items are no longer withdrawn. 12 (Exhibit No. 115 received in evidence.) 13 CHAIRMAN GRAHAM: Okay. 14 MS. KLANCKE: With regard to 116 and 117, 15 those are all in. 16 (Exhibit Nos. 116 and 117 received in 17 evidence.) 18 CHAIRMAN GRAHAM: Okay. 19 MS. KLANCKE: 118 is withdrawn. 20 CHAIRMAN GRAHAM: Okay. 21 MS. KLANCKE: 119 is all in. 22 (Exhibit No. 119 received in evidence.) 23 MS. KLANCKE: 120 FIPUG has raised specific 24 objections with respect to number six which staff 25 FLORIDA PUBLIC SERVICE COMMISSION

1	had already withdrawn so that will not be an issue,
2	and number 15. As I previously stated, number
3	five, six, and 45 have been withdrawn.
4	CHAIRMAN GRAHAM: Okay.
5	(Exhibit No. 120 received in evidence.)
6	MS. KLANCKE: Number 121 has been withdrawn.
7	Number 122 has been moved into the record. As
8	we specified this morning, item numbers 122 through
9	144 were moved into the record either through
10	stipulation or through a motion by staff.
11	CHAIRMAN GRAHAM: Okay.
12	MR. WRIGHT: Mr. Chairman, I'm sorry, I'm
13	fuzzy on 123. Is it withdrawn or is it admitted?
14	CHAIRMAN GRAHAM: 123 is out.
15	MS. KLANCKE: Correct.
16	MR. WRIGHT: Thank you.
17	MS. KLANCKE: In addition, there are several
18	deposition transcripts that have been stipulated,
19	and I would just like to note for the record
20	number 152 has been stipulated, the deposition
21	transcript of witness Pollock.
22	CHAIRMAN GRAHAM: Okay.
23	(Exhibit No. 152 received in evidence.)
24	MS. KLANCKE: Number 157, the deposition
25	transcript of witness Stowe. FLORIDA PUBLIC SERVICE COMMISSION

Okay. CHAIRMAN GRAHAM: 1 (Exhibit No. 157 received in evidence.) 2 MS. KLANCKE: I believe those were the two 3 deposition transcripts that were stipulated due to 4 agreement by the parties. 5 MR. WRIGHT: Mr. Chairman, just so my notes 6 and records are clear, are we going to show those 7 deposition transcripts as being admitted now, 8 9 today? CHAIRMAN GRAHAM: Yes. 10 Thank you very much. MR. WRIGHT: 11 CHAIRMAN GRAHAM: Is that it, Ms. Klancke? 12 That's correct. 13 MS. KLANCKE: CHAIRMAN GRAHAM: I'll go back starting from 14 the end moving forward, just to make sure 15 everybody's got everything. 16 MR. SAYLER: Excuse me, Mr. Chairman, I was 17 comparing with my colleague, which depositions are 18 being stipulated to, and also, does that include 19 the exhibits attached thereto? 20 MS. KLANCKE: That is correct. Pursuant to 21 agreement by the parties in conjunction with the 22 stipulation of these witnesses, number 152 for 23 FIPUG's witness Pollock was stipulated to and all 24 of the associated exhibits with regard to the 25 FLORIDA PUBLIC SERVICE COMMISSION

1	deposition, and witness Stowe, who is FEA's witness
2	as well is listed under 157.
3	MS. KAUFMAN: Excuse me, Mr. Chairman, just so
4	the record is clear, I don't think that Mr. Pollock
5	had any exhibits to his deposition.
6	MS. KLANCKE: I believe that witness Stowe
7	did, however.
8	MS. KAUFMAN: I just wanted the record to be
9	clear for FIPUG's witness.
10	MS. KLANCKE: Sure.
11	CHAIRMAN GRAHAM: Okay. Let's start through
12	this thing going backwards, going forward, we just
13	put in 157, 152, as stated by Ms. Klancke, we've
14	already put in 144 through 122 with the exception
15	of 123 we're on page 21 121 is out and the
16	rest of these that I call off are, according to the
17	way described by Ms. Klancke, 120 is all in except
18	for six and 15, and five, six, and 45 are
19	withdrawn. 119 is all in. 118 is out. 117, 116
20	are both all in. 115 is in with the exception of
21	204, 06, 07, 08 and 09. 114 is all in. 113 is in.
22	I have 14, 27, and 79 that are withdrawn. And 77
23	was stipulated.
24	Is everybody with me so far?
25	(Affirmative response.)
	FLORIDA PUBLIC SERVICE COMMISSION

1	CHAIRMAN GRAHAM: 112, 11, ten are all in.
2	109 is in. And 312 and 316 have been withdrawn.
3	The bottom of page 18, 108 and 107 are all in.
4	106 is in except for 274 is withdrawn. 105 is in,
5	and 104 is in through stipulation.
6	The bottom of page 17. Is everybody still
7	good?
8	(Affirmative response.)
9	CHAIRMAN GRAHAM: 103, did we say that was in?
10	MS. KLANCKE: Yes, that's correct, with the
11	exception of number 252.
12	CHAIRMAN GRAHAM: And
13	MS. KLANCKE: And the ones that are withdrawn,
14	which are 256, 257, 258.
<b>1</b> 5	CHAIRMAN GRAHAM: Okay. 102 is all in except
16	for the objections of 220, 26, 28, 29, 30, 31, 32,
17	33, 34. 101 is in except for 216 is withdrawn. 99
18	are both all in. 98 is all in. 171 was
19	stipulated. 97 is all in except for we've done
20	that nine times 96, 95, and 94 are all in. 93
21	is out. 92 is in except for 95, 96, 97, 98, and
22	100, which are withdrawn. And 91 is in.
23	MR. WRIGHT: Excuse me, Mr. Chairman.
24	CHAIRMAN GRAHAM: Okay.
25	MR. WRIGHT: I believe it was 99 and not 98. FLORIDA PUBLIC SERVICE COMMISSION
	I DOUTRY I OPPIC ONLYICE CONTROLON

1	CHAIRMAN GRAHAM: I have 95, 96, 97, 99, and
2	100.
3	MR. WRIGHT: Correct.
4	CHAIRMAN GRAHAM: Okay. I missed it, oops.
5	Okay. 91 all in except for 85 is out. 90 is
6	all in. 89 is all in.
7	MS. KLANCKE: With the exception of numbers 38
8	and 39, which would have been withdrawn. I
9	apologize, I'll stop speaking.
10	CHAIRMAN GRAHAM: One more time.
11	MS. KLANCKE: It's all in, you were correct.
12	I failed to note the withdrawal of FIPUG's
13	objections to two of them.
14	CHAIRMAN GRAHAM: Okay. Bottom of page 14, 88
15	is all in. 87 is in, number 30 was stipulated. 86
16	is in, but 19 through 21 are withdrawn.
17	Are we all on the same page?
18	(Affirmative response.)
19	CHAIRMAN GRAHAM: Very good. Okay. I think I
20	need a five-minute break.
21	(Whereupon, a recess was taken.)
22	CHAIRMAN GRAHAM: All right, Mr. Melson, call
23	your next witness.
24	MR. MELSON: Gulf calls Dr. James Vander
25	Weide.
	FLORIDA PUBLIC SERVICE COMMISSION

Thereupon, 1 JAMES H. VANDER WEIDE, Ph.D. 2 was called as a witness, having been previously duly 3 sworn, was examined and testified as follows: 4 DIRECT EXAMINATION 5 6 BY MR. MELSON: Dr. Vander Weide, have you been sworn? 7 Q Yes, I have. 8 Α Would you please state your name and business 9 Q 10 address? My name is James H. Vander Weide and my Α Yes. 11 business address is 3606 Stony Brook Drive, Durham, 12 North Carolina 27705. 13 And what is your occupation or profession? 14 Q I am a Research Professor of Finance and 15 А Economics at Duke University, the Fuqua School of 16 Business, and I'm President of Financial Strategy 17 Associates. 18 And did you prefile direct testimony in this 19 Q docket dated July 8th, 2011 consisting of 50 pages? 20 А Yes, I did. 21 Do you have any changes or corrections to that 22 Q testimony? 23 24 А No, I do not. If I were to ask you the same questions today, 25 Q FLORIDA PUBLIC SERVICE COMMISSION

1	would your answers be the same?
2	A Yes.
3	MR. MELSON: Mr. Chairman, I would ask that
4	Dr. Vander Weide's direct testimony be inserted
5	into the record as though read.
6	CHAIRMAN GRAHAM: We will insert Mr. Vander
7	Weide's testimony into the record.
8	(Whereupon, prefiled direct testimony
9	inserted.)
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	FLORIDA PUBLIC SERVICE COMMISSION
	LIGHTRY LODILC DIMATCH CONTRICTION

1		DIRECT TESTIMONY OF
2		JAMES H. VANDER WEIDE, PH.D.
3		ON BEHALF OF GULF POWER COMPANY
4		DOCKET NO. 110138-EI
5		
6		
7		
8		I. INTRODUCTION AND PURPOSE
9	Q.	Please state your name, title, and business address.
10	Α.	My name is James H. Vander Weide. I am Research Professor of Finance and
11		Economics at Duke University, The Fuqua School of Business. I am also President of
12		Financial Strategy Associates, a firm that provides strategic and financial consulting
13		services to business clients. My business address is 3606 Stoneybrook Drive,
14		Durham, North Carolina 27705.
15		
16	Q.	Please describe your educational background and prior academic experience.
17	Α.	I graduated from Cornell University with a Bachelor's Degree in Economics and from
18		Northwestern University with a Ph.D. in Finance. After joining the faculty of the
19		School of Business at Duke University, I was named Assistant Professor, Associate
20		Professor, Professor, and then Research Professor. I have published research in the
21		areas of finance and economics and taught courses in these fields at Duke for more
22		than thirty-five years. I am now retired from my teaching duties at Duke. A
23		summary of my research, teaching, and other professional experience is presented in
24		Exhibit(JVW-2, Appendix 1).
25		

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 1 of 50

0.

### Have you previously testified on financial or economic issues?

Yes. As an expert on financial and economic theory and practice, I have participated 2 Α. in more than four hundred regulatory and legal proceedings before the U.S. Congress, 3 the Canadian Radio-Television and Telecommunications Commission, the Federal 4 Communications Commission, the National Telecommunications and Information 5 Administration, the Federal Energy Regulatory Commission, the National Energy 6 Board (Canada), the public service commissions of forty-three states and four 7 Canadian provinces, the insurance commissions of five states, the Iowa State Board 8 9 of Tax Review, the National Association of Securities Dealers, and the North Carolina Property Tax Commission. In addition, I have prepared expert testimony in 10 proceedings before the U.S. Tax Court; the U.S. District Court for the District of 11 Nebraska; the U.S. District Court for the District of New Hampshire; the U.S. District 12 Court for the District of Northern Illinois; the U.S. District Court for the Eastern 13 14 District of North Carolina; the Montana Second Judicial District Court, Silver Bow 15 County; the U.S. District Court for the Northern District of California; the Superior 16 Court, North Carolina; the U.S. Bankruptcy Court for the Southern District of West 17 Virginia; and the U.S. District Court for the Eastern District of Michigan.

- 18
- 19 0.

#### What is the purpose of your testimony?

20 I have been asked by Gulf Power Company ("Gulf Power" or "the Company") to Α. 21 prepare an independent appraisal of Gulf Power's cost of equity and to recommend to 22 the Florida Public Service Commission ("the Commission") a rate of return on equity 23 that is fair, that allows Gulf Power to attract capital on reasonable terms, and that 24 allows Gulf Power to maintain its financial integrity.

25

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 2 of 50

SUMMARY OF TESTIMONY II. 1 2 How do you estimate Gulf Power's cost of equity? 3 Q. I estimate Gulf Power's cost of equity by applying several standard cost of equity 4 Α. methods to market data for a large group of utility companies of comparable risk. 5 6 Why do you apply your cost of equity methods to a large group of comparable 7 Q. risk companies rather than solely to Gulf Power? 8 I apply my cost of equity method to a large group of comparable risk companies 9 Α. because standard cost of equity methodologies such as the discounted cash flow 10 ("DCF"), risk premium, and capital asset pricing model ("CAPM") require inputs of 11 quantities that are not easily measured. The problem of difficult-to-measure inputs is 12 especially acute for Gulf Power because, as a subsidiary of Southern Company, its 13 stock is not publicly traded. Since these inputs can only be estimated, there is 14 15 naturally some degree of uncertainty surrounding the estimate of the cost of equity for each company. However, the uncertainty in the estimate of the cost of equity for an 16 individual company can be greatly reduced by applying cost of equity methodologies 17 to a large sample of comparable risk, or proxy companies. Intuitively, unusually high 18 estimates for some individual companies are offset by unusually low estimates for 19 other individual companies. Thus, financial economists invariably apply cost of 20 equity methodologies to a group of proxy companies. In utility regulation, the 21 practice of using a group of proxy companies is further supported by the United 22 States Supreme Court standard that the utility should be allowed to earn a return on 23 its investment that is commensurate with returns being earned on other investments of 24 the same risk (see Bluefield Water Works and Improvement Co. v. Public Service 25

> Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 3 of 50

Comm'n. 262 U.S. 679, 692 (1923) and Federal Power Comm'n v. Hope Natural Gas Co., 320 U.S. 561, 603 (1944)).

4 Q. What cost of equity do you find for your proxy companies in this proceeding?

On the basis of my studies, I find that the cost of equity for my proxy companies is 5 Α. 10.8 percent. This conclusion is based on my application of standard cost of equity 6 estimation techniques, including the DCF model, the ex ante risk premium approach, 7 the ex post risk premium approach, and the CAPM, to a broad group of companies of 8 9 comparable risk, and on the evidence I present in this testimony that the CAPM significantly underestimates the cost of equity for companies such as my proxy 10 companies with betas significantly less than 1.0. As noted below, the cost of equity 11 for my proxy companies must be adjusted to reflect the higher financial risk 12 associated with Gulf Power's rate making capital structure compared to the average 13 market-value capital structure of my proxy company group. Making this adjustment 14 15 produces a cost of equity equal to 11.7 percent.

16

1

2

3

Q. You note that the cost of equity of your proxy companies needs to be adjusted
for financial risk. Why is that adjustment needed?

19 A. The cost of equity for my proxy companies depends on their financial risk, which is 20 measured by the market values of debt and equity in their capital structures. The 21 financial risk of my proxy companies differs from the financial risk associated with 22 Gulf Power's rate making capital structure. It is both logically and economically 23 inconsistent to apply a cost of equity developed for a sample of companies with a 24 specific degree of financial risk to a capital structure with a different financial risk. 25 One must adjust the cost of equity for my proxy companies upward in order for

> Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 4 of 50

investors in Gulf Power to have an opportunity to earn a return on their investment in Gulf Power that is commensurate with returns they could earn on other investments of comparable risk.

4

1

2

3

5

6

7

8

9

10

11

12

13

14

# Q. How does Gulf Power's financial risk, as reflected in its rate making capital structure, compare to the financial risk of your proxy companies?

A. Gulf Power's rate making capital structure in this proceeding contains 1.29 percent short-term debt, 47.21 percent long-term debt, 5.24 percent preferred equity, and 46.26 percent common equity. The average market value capital structure for my proxy group of companies contains approximately 4.59 percent short-term debt, 39.77 percent long-term debt, 0.56 percent preferred equity, and 55.08 percent common equity. Thus, the financial risk of Gulf Power as reflected in its rate making capital structure is greater than the financial risk embodied in the cost of equity estimates for my proxy companies.

15

Q. The Commission rejected your financial risk adjustment in Docket No. 090079 EI, on the grounds that you inappropriately mix market value and book value
 capital structures. Do you agree that your comparison of the market value
 capital structures of your proxy companies to Gulf Power's rate making or book
 value capital structure is inappropriate?

A. No. I compare the average market value capital structure of my proxy companies to
 Gulf Power's recommended book value capital structure because the cost of equity
 results I obtain from my proxy companies depend on their financial risk as measured
 in the marketplace. In contrast, Gulf Power's financial risk depends on its rate
 making, or book value capital structure. As discussed above, it is both logically and

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 5 of 50 economically inconsistent to apply a cost of equity obtained from a sample of companies with one level of financial risk to a capital structure with a different level of financial risk. My financial risk adjustment appropriately adjusts the cost of equity for my proxy companies to reflect the differences in financial risk reflected in the proxy companies' cost of equity and the financial risk reflected in Gulf Power's rate making capital structure.

7

1

2

3

4

5

6

### 8 Q. Are you aware of examples where regulators have used market value capital 9 structures to estimate the overall cost of capital?

10 Yes. I'm aware of several examples where regulators have used market value capital Α. structures either to adjust the cost of equity for financial risk or to estimate the overall 11 12 cost of capital. First, the Pennsylvania Public Utility Commission has adopted a 13 financial risk adjustment similar to the adjustment I have recommended here to set 14 the allowed rate of return on equity for electric and water companies. Second, 15 regulatory bodies, including the Federal Communication Commission's (FCC) Wireline Competition Bureau and the public service commission of Massachusetts, 16 17 have used market value capital structures to estimate the cost of capital in 18 proceedings on the cost of the unbundled network elements local exchange carriers 19 are required to lease to their competitors. Third, the Surface Transportation Board 20 uses a market value capital structure to estimate the cost of capital for railroads. 21 Fourth, some state tax authorities use market value capital structures to calculate the 22 cost of capital that is used to value utilities' properties for the purpose of assessing 23 property taxes, including, for example, Colorado, Iowa, Nevada, and Utah.

24 25

#### Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 6 of 50

1		
2	Q.	What is the fair rate of return on equity for Gulf Power indicated by your cost of
3		equity analysis?
4	Α.	Based on my analysis, I recommend that Gulf Power be allowed a fair rate of return
5		on equity equal to 11.7 percent in order to have the same weighted average cost of
6		capital as my proxy companies.
7		·
8	Q.	Do you have exhibits accompanying your testimony?
9	А.	Yes. I have prepared or supervised the preparation of Exhibit (JVW-1) consisting
10		of ten schedules and Exhibit (JVW-2) consisting of five appendices that
11		accompany my testimony.
12		
13		III. ECONOMIC AND LEGAL PRINCIPLES
14	Q.	How do economists define the required rate of return, or cost of capital,
15		associated with particular investment decisions such as the decision to invest in
16		electric generation, transmission, and distribution facilities?
17	Α.	Economists define the cost of capital as the return investors expect to receive on
18		alternative investments of comparable risk.
19		
20	Q.	How does the cost of capital affect a firm's investment decisions?
21	А.	The goal of a firm is to maximize its value. This goal can be accomplished by
22		accepting all investments in plant and equipment with an expected rate of return
23		greater than the cost of capital. Thus, a firm should continue to invest in plant and
24		equipment only so long as the return on its investment is greater than or equal to its
25		cost of capital.

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 7 of 50

2

3

4

5

6

### Q. How does the cost of capital affect investors' willingness to invest in a company?

A. The cost of capital measures the return investors can expect on investments of comparable risk. The cost of capital also measures the investor's required rate of return on investment because rational investors will not invest in a particular investment opportunity if the expected return on that opportunity is less than the cost of capital. Thus, the cost of capital is a hurdle rate for both investors and the firm.

8

7

9

#### Q. Do all investors have the same position in the firm?

10 A. No. Debt investors have a fixed claim on a firm's assets and income that must be 11 paid prior to any payment to the firm's equity investors. Since the firm's equity 12 investors have a residual claim on the firm's assets and income, equity investments 13 are riskier than debt investments. Thus, the cost of equity exceeds the cost of debt.

14

15

#### Q. What is the overall or average cost of capital?

A. The overall or average cost of capital is a weighted average of the cost of debt and
 cost of equity, where the weights are the percentages of debt and equity in a firm's
 capital structure.

19

### 20 Q. Can you illustrate the calculation of the overall or weighted average cost of 21 capital?

A. Yes. Assume that the cost of debt is 7 percent, the cost of equity is 13 percent, and
the percentages of debt and equity in the firm's capital structure are 50 percent and
50 percent, respectively. Then the weighted average cost of capital is expressed by
.50 times 7 percent plus .50 times 13 percent, or 10.0 percent.

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 8 of 50

2

#### O. How do economists define the cost of equity?

A. Economists define the cost of equity as the return investors expect to receive on
alternative equity investments of comparable risk. Since the return on an equity
investment of comparable risk is not a contractual return, the cost of equity is more
difficult to measure than the cost of debt. However, as I have already noted, there is
agreement among economists that the cost of equity is greater than the cost of debt.
There is also agreement among economists that the cost of equity, like the cost of
debt, is both forward looking and market based.

10

12

11

# Q. How do economists measure the percentages of debt and equity in a firm's capital structure?

Economists measure the percentages of debt and equity in a firm's capital structure 13 Α. 14 by first calculating the market value of the firm's debt and the market value of its 15 equity. Economists then calculate the percentage of debt by the ratio of the market 16 value of debt to the combined market value of debt and equity, and the percentage of 17 equity by the ratio of the market value of equity to the combined market values of 18 debt and equity. For example, if a firm's debt has a market value of \$25 million and 19 its equity has a market value of \$75 million, then its total market capitalization is 20 \$100 million, and its capital structure contains 25 percent debt and 75 percent equity.

21

## Q. Why do economists measure a firm's capital structure in terms of the market values of its debt and equity?

A. Economists measure a firm's capital structure in terms of the market values of its debt
and equity because: (1) the weighted average cost of capital is defined as the return

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 9 of 50 investors expect to earn on a portfolio of the company's debt and equity securities; (2) investors measure the expected return and risk on their portfolios using market value weights, not book value weights; and (3) market values are the best measures of the amounts of debt and equity investors have invested in the company on a going forward basis.

6

1

2

3

4

5

7 8

9

10

11

12

13

14

15

16

# Q. Why do investors measure the expected return and risk on their investment portfolios using market value weights rather than book value weights?

A. Investors measure the expected return and risk on their investment portfolios using market value weights because: (1) the expected return on a portfolio is calculated by comparing the expected value of the portfolio at the end of the investment period to its current value; (2) the risk on a portfolio is calculated by examining the variability of the return on the portfolio at the end of the investment period; and (3) market values are the best measure of the current value of the portfolio. From the investor's point of view, the historical cost, or book value of their investment, is generally a poor indicator of the portfolio's current value.

17

Q. Is the economic definition of the weighted average cost of capital consistent with
 regulators' traditional definition of the weighted average cost of capital?

A. No. The economic definition of the weighted average cost of capital is based on the
market costs of debt and equity, the market value percentages of debt and equity in a
company's capital structure, and the future expected risk of investing in the company.
In contrast, regulators have traditionally defined the weighted average cost of capital
using the embedded cost of debt and the book values of debt and equity in a
company's capital structure.

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 10 of 50

1		
2	Q.	Does the required rate of return on an investment vary with the risk of that
3		investment?
4	Α.	Yes. Since investors are averse to risk, they require a higher rate of return on
5		investments with greater risk.
6		
7	Q.	Do economists and investors consider future industry changes when they
8		estimate the risk of a particular investment?
9	Α.	Yes. Economists and investors consider all the risks that a firm might be exposed to
10		over the future life of the company.
11		
12	Q.	Are these economic principles regarding the fair return for capital recognized in
13		any United States Supreme Court cases?
14	Α.	Yes. These economic principles, relating to the supply of and demand for capital, are
15		recognized in two United States Supreme Court cases: (1) Bluefield Water Works
16		and Improvement Co. v. Public Service Comm'n.; and (2) Federal Power Comm'n v.
17		Hope Natural Gas Co. In the Bluefield Water Works case, the Court stated:
18		A public utility is entitled to such rates as will permit it to earn a return
19		upon the value of the property which it employs for the convenience of
20		the public equal to that generally being made at the same time and in
21		the same general part of the country on investments in other business
22		undertakings which are attended by corresponding risks and
23		uncertainties; but it has no constitutional right to profits such as are
24		realized or anticipated in highly profitable enterprises or speculative
25		ventures. The return should be reasonably sufficient to assure

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 11 of 50 confidence in the financial soundness of the utility, and should be adequate, under efficient and economical management, to maintain and support its credit, and enable it to raise the money necessary for the proper discharge of its public duties. [Bluefield Water Works and Improvement Co. v. Public Service Comm'n. 262 U.S. 679, 692 (1923)].

1

2

3

4

5

6

7 The Court clearly recognizes here that: (1) a regulated firm cannot remain financially 8 sound unless the return it is allowed to earn on the value of its property is at least 9 equal to the cost of capital (the principle relating to the demand for capital); and (2) a 10 regulated firm will not be able to attract capital if it does not offer investors an 11 opportunity to earn a return on their investment equal to the return they expect to earn 12 on other investments of the same risk (the principle relating to the supply of capital).

13In the Hope Natural Gas case, the Court reiterates the financial soundness and14capital attraction principles of the Bluefield case:

15 From the investor or company point of view it is important that there 16 be enough revenue not only for operating expenses but also for the 17 capital costs of the business. These include service on the debt and 18 dividends on the stock... By that standard the return to the equity 19 owner should be commensurate with returns on investments in other 20 enterprises having corresponding risks. That return, moreover, should 21 be sufficient to assure confidence in the financial integrity of the 22 enterprise, so as to maintain its credit and to attract capital. [Federal 23 Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591, 603 (1944)].

The Court clearly recognizes that the fair rate of return on equity should be: (1) comparable to returns investors expect to earn on other investments of similar

> Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 12 of 50

309

1

2

### IV. BUSINESS AND FINANCIAL RISKS

(3) adequate to maintain and support the company's credit and to attract capital.

risk; (2) sufficient to assure confidence in the company's financial integrity; and

### 5 Q. What are the primary business and financial risks facing electric energy 6 companies such as Gulf Power?

7 A. The business and financial risks of investing in electric energy companies such as
8 Gulf Power include:

Demand Uncertainty. Demand uncertainty is one of the primary 9 1. business risks of investing in electric energy companies such as Gulf Power. 10 Demand uncertainty is caused by: (a) the strong dependence of electric demand on 11 12 the state of the economy and weather patterns; (b) the sensitivity of demand to 13 changes in rates; (c) the ability of customers to choose alternative forms of energy, 14 such as natural gas or oil; (d) the ability of some customers to locate facilities in the 15 service areas of competitors; (e) the ability of some customers to conserve energy or 16 produce their own electricity under cogeneration or self-generation arrangements; 17 and (f) the ability of municipalities to go into the energy business rather than renew 18 the company's franchise. Demand uncertainty is a problem for electric companies 19 because of the need to plan for infrastructure additions many years in advance of 20 demand.

2. <u>Operating Expense Uncertainty</u>. The business risk of electric energy 22 companies is also increased by the inherent uncertainty in the typical electric energy 23 company's operating expenses. Operating expense uncertainty arises as a result of: 24 (a) the prospect of increasing employee health care and pension expenses; 25 (b) uncertainty over plant outages, the cost of purchased power, and the revenues

> Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 13 of 50

achieved from off system sales; (c) variability in maintenance costs and the costs of other materials; (d) uncertainty over outages of the transmission and distribution systems, as well as storm-related expenses; (e) the prospect of increased expenses for security; and (f) high volatility in fuel prices or interruptions in fuel supply.

1

2

3

4

Investment Cost Uncertainty. The electric energy business requires 3. 5 very large investments in the generation, transmission, and distribution facilities 6 required to deliver energy to customers. The future amounts of required investments 7 in these facilities are highly uncertain as a result of: (a) demand uncertainty; (b) the 8 changing economics of alternative generation technologies; (c) uncertainty in 9 environmental regulations and clean air requirements; (d) uncertainty in the costs of 10 construction materials and labor; (e) uncertainty in the amount of additional 11 investments to ensure the reliability of the company's transmission and distribution 12 networks; and (f) uncertainty regarding future decommissioning and dismantlement 13 costs. Furthermore, the risk of investing in electric energy facilities is increased by 14 the irreversible nature of the company's investments in generation, transmission, and 15 distribution facilities. For example, if an electric energy company decides to invest 16 in building a new generation plant, and, as a result of new environmental regulations, 17 energy produced by the plant becomes uneconomic, the company may not be able to 18 recover its investment. 19

4. <u>High Operating Leverage</u>. The electric energy business requires a
 large commitment to fixed costs in relation to the operating margin on sales, a
 situation known as high operating leverage. The relatively high degree of fixed costs
 in the electric energy business arises from the average electric energy company's
 large investment in fixed generation, transmission, and distribution facilities. High

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 14 of 50 operating leverage causes the average electric energy company's operating income to be highly sensitive to demand and revenue fluctuations.

5. <u>High Degree of Financial Leverage</u>. The large capital requirements for building economically efficient electric generation, transmission, and distribution facilities, along with the traditional regulatory preference for the use of debt, have encouraged electric utilities to maintain highly debt-leveraged capital structures as compared to non-utility firms. High debt leverage is a source of additional risk to utility stock investors because it increases the percentage of the firm's costs that are fixed, and the presence of higher fixed costs increases the sensitivity of a firm's earnings to variations in revenues.

Regulatory Uncertainty. Investors' perceptions of the business and 6. 11 financial risks of electric energy companies are strongly influenced by their views of 12 the quality of regulation. Investors are painfully aware that regulators in some 13 14 jurisdictions have been unwilling at times to set rates that allow companies an 15 opportunity to recover their cost of service in a timely manner and earn a fair and 16 reasonable return on investment. As a result of the perceived increase in regulatory 17 risk, investors will demand a higher rate of return for electric energy companies operating in those states. On the other hand, if investors perceive that regulators will 18 19 provide a reasonable opportunity for the company to maintain its financial integrity and earn a fair rate of return on its investment, investors will view regulatory risk as 20 21 minimal.

22

1

2

3

4

5

6

7

8

9

10

23

#### Q. Have any of these risk factors changed in recent years?

A. Yes. The risk of investing in electric energy companies has increased as a result of
 significantly greater macroeconomic uncertainty; projected electric energy company

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 15 of 50 capital expenditures; greater volatility in fuel prices; greater uncertainty in the cost of satisfying environmental requirements; more volatile purchased power and off system sales prices; greater uncertainty in employee health care and pension expenses; greater uncertainty with regard to legislative mandates related to generation mix, such as renewable portfolio standards; and greater uncertainty in the expenses associated with system outages, storm damage, and security. Each of these factors puts pressure on customer rates and therefore increases regulatory risk.

7 8

1

2

3

4

5

6

9

10

11

How does greater macroeconomic uncertainty affect the business and financial 0. risks of investing in electric energy companies such as Gulf Power?

Greater macroeconomic uncertainty increases the business and financial risks of Α. investing in electric energy companies such as Gulf Power by fundamentally 12 increasing demand uncertainty, investment uncertainty, and regulatory uncertainty. 13

14

#### 15 Q. Why does macroeconomic uncertainty increase demand uncertainty?

Macroeconomic uncertainty increases demand uncertainty because the demand for 16 Α. electric energy services depends on the state of the economy. The greater the 17 uncertainty regarding the state of the economy, the greater will be the uncertainty 18 regarding the demand for energy services. 19

20

#### How does increased demand uncertainty affect the uncertainty of the future 21 0. 22 return on investment for Gulf Power?

Increased demand uncertainty greatly increases the uncertainty of the future return on 23 Α. investment for Gulf Power because most of the Company's costs are fixed, while its 24

25

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 16 of 50

revenues are variable. Thus, greater volatility in revenues produces greater volatility in return on investment.

3

4

5

6

7

8

9

10

1

2

#### Q. Why does macroeconomic uncertainty increase investment cost uncertainty?

A. Increased macroeconomic uncertainty greatly increases the uncertainty of investment costs for electric companies like Gulf Power because it increases the uncertainty regarding: the demand for electric energy; the economics of alternative generating technologies; the cost of environmental regulations; the cost of construction materials and labor; and the amount of additional investment required to ensure the reliability of the company's transmission and distribution networks.

11

12

#### Q. Why does macroeconomic uncertainty increase regulatory uncertainty?

A. Regulatory uncertainty arises because investors are not certain that regulators will be willing to set rates that allow companies an opportunity to recover their costs of service and earn a fair and reasonable return on investment. Regulatory uncertainty increases in difficult economic times because investors recognize that regulators are likely to face greater pressure to restrain rate increases in difficult economic times than in good economic times.

19

## Q. How do greater projected capital expenditures affect the business and financial risks of investing in electric energy companies such as Gulf Power?

A. Greater projected capital expenditures increase the business and financial risks of
 investing in electric energy companies such as Gulf Power by increasing investment
 cost uncertainty, operating leverage, and regulatory uncertainty.

25

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 17 of 50

3

4

0.

### Why do greater projected capital expenditures increase an electric energy company's investment cost uncertainty?

Greater projected capital expenditures increase investment cost uncertainty because Α. investments in new generation, transmission, and distribution facilities take many years to complete. As investors found during the last electric energy investment 5 boom of the 1980s, actual costs of building new generation, transmission, and 6 distribution facilities can differ from forecasted costs as a result of changes in 7 environmental regulations, materials costs, capital costs, and unexpected delays. 8

9

#### Why do greater projected capital expenditures increase operating leverage? 10 Q.

As noted above, operating leverage increases when a firm's commitment to fixed 11 Α. costs rises in relation to its operating margin on sales. Increased capital expenditures 12 increase operating leverage because investment costs are fixed, the investment period 13 is long, and revenues do not generally increase in line with investment costs until the 14 investment is entirely included in rate base. Thus, the ratio of fixed costs to operating 15 16 margin increases when capital expenditures increase.

- 17
- 18

#### Why do greater projected capital expenditures increase regulatory uncertainty? Q.

As noted above, regulatory uncertainty arises because investors are aware that 19 Α. regulators in some states have been unwilling at times to set rates that allow a 20 company an opportunity to recover its cost of service, including the cost of capital. 21 Regulatory uncertainty is most pronounced when rates are projected to increase. 22 Greater projected capital expenditures increase regulatory uncertainty because they 23 frequently cause rates to increase. 24

25

#### Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 18 of 50

Q. Is the Company projecting significant capital expenditures over the next several
 vears?

A. Yes. The Company's construction program is currently estimated to include a
planned investment of \$384.6 million in 2011, \$423.6 million in 2012, and \$421.7
million in 2013.

6

7

8

## Q. Can the risks facing Gulf Power and other electric energy companies be distinguished from the risks of investing in companies in other industries?

Yes. The risks of investing in electric energy companies such as Gulf Power can be 9 Α. distinguished from the risks of investing in companies in many other industries in 10 several ways. First, the risks of investing in electric energy companies are increased 11 because of the greater capital intensity of the electric energy business and the fact that 12 most investments in electric energy facilities are largely irreversible once they are 13 14 made. Second, unlike returns in competitive industries, the returns from investment in the electric energy business are largely asymmetric. That is, there is little 15 opportunity for electric energy companies to earn more than their required return, and 16 a significant chance that they will earn less than their required return. 17

- 18
- 19

#### V. COST OF EQUITY ESTIMATION METHODS

Q. What methods do you use to estimate Gulf Power's fair rate of return on equity?
A. I use several generally accepted methods for estimating the cost of equity for Gulf
Power. These are the Discounted Cash Flow (DCF), the ex ante risk premium, the ex
post risk premium, and the capital asset pricing model (CAPM). The DCF method
assumes that the current market price of a firm's stock is equal to the discounted
value of all expected future cash flows. The ex ante risk premium method assumes

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Guif Power Company Florida Public Service Commission Docket No. 110138-EI Page 19 of 50 316

that an investor's current expectations regarding the equity risk premium can be estimated from recent data on the DCF expected rate of return on equity compared to the interest rate on long-term bonds. The ex post risk premium method assumes that an investor's current expectations regarding the equity-debt return differential is equal to the historical record of comparable returns on stock and bond investments. The cost of equity under both risk premium methods is then equal to the interest rate on bond investments plus the risk premium. The CAPM assumes that the investor's required rate of return on equity is equal to a risk-free rate of interest plus the product of a company-specific risk factor, beta, and the expected risk premium on the market portfolio.

11

1

2

3

4

5

6

7

8

9

10

12

#### A. DISCOUNTED CASH FLOW METHOD

13 **Q.** 

### Please describe the DCF model.

14 Α. The DCF model is based on the assumption that investors value an asset on the basis 15 of the future cash flows they expect to receive from owning the asset. Thus, investors 16 value an investment in a bond because they expect to receive a sequence of semi-17 annual coupon payments over the life of the bond and a terminal payment equal to the 18 bond's face value at the time the bond matures. Likewise, investors value an 19 investment in a firm's stock because they expect to receive a sequence of dividend 20 payments and, perhaps, expect to sell the stock at a higher price sometime in the 21 future.

A second fundamental principle of the DCF method is that investors value a dollar received in the future less than a dollar received today. A future dollar is valued less than a current dollar because investors could invest a current dollar in an

25

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 20 of 50 interest earning account and increase their wealth. This principle is called the time value of money.

Applying the two fundamental DCF principles noted above to an investment in a bond leads to the conclusion that investors value their investment in the bond on the basis of the present value of the bond's future cash flows. Thus, the price of the bond should be equal to:

#### **EQUATION 1**

 $P_{B} = \frac{C}{(1+i)} + \frac{C}{(1+i)^{2}} + \dots + \frac{C+F}{(1+i)^{n}}$ 

9 where: = Bond price; 10 PB С Cash value of the coupon payment (assumed for notational 11 12 convenience to occur annually rather than semi-annually); 13 F Face value of the bond; 14 i The rate of interest the investor could earn by investing his money = 15 in an alternative bond of equal risk; and 16 n = The number of periods before the bond matures. 17 Applying these same principles to an investment in a firm's stock suggests that the 18 price of the stock should be equal to: 19 **EQUATION 2** 

 $P_s = \frac{D_1}{(1+k)} + \frac{D_2}{(1+k)^2} + \dots + \frac{D_n + P_n}{(1+k)^n}$ 

where:

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 21 of 50

20

1

2

3

4

5

6

7

8

1		$P_s$ = Current price of the firm's stock;
2		$D_1, D_2D_n$ = Expected annual dividend per share on the firm's stock;
3		$P_n$ = Price per share of stock at the time the investor expects to sell the
4		stock; and
5		k = Return the investor expects to earn on alternative investments of
6		the same risk, i.e., the investor's required rate of return.
7		Equation (2) is frequently called the annual discounted cash flow model of stock
8		valuation. Assuming that dividends grow at a constant annual rate, g, this equation
9		can be solved for k, the cost of equity. The resulting cost of equity equation is $k =$
10		$D_l/P_s + g$ , where k is the cost of equity, $D_l$ is the expected next period annual
11		dividend, $P_s$ is the current price of the stock, and g is the constant annual growth rate
12		in earnings, dividends, and book value per share. The term $D_I/P_s$ is called the
13		expected dividend yield component of the annual DCF model, and the term $g$ is called
14		the expected growth component of the annual DCF model.
15		
16	Q.	Are you recommending that the annual DCF model be used to estimate Gulf
17		Power's cost of equity?
18	Α.	No. The DCF model assumes that a company's stock price is equal to the present
1 <b>9</b>		discounted value of all expected future dividends. The annual DCF model is only a
20		correct expression of the present value of future dividends if dividends are paid
21		annually at the end of each year. Since the companies in my proxy group all pay
22		dividends quarterly, the current market price that investors are willing to pay reflects
23		the expected quarterly receipt of dividends. Therefore, a quarterly DCF model should
24		be used to estimate the cost of equity for these firms. The quarterly DCF model
25		differs from the annual DCF model in that it expresses a company's price as the

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 22 of 50 present value of a quarterly stream of dividend payments. A complete analysis of the implications of the quarterly payment of dividends on the DCF model is provided in Exhibit\_\_\_(JVW-2, Appendix 2). For the reasons cited there, I employ the quarterly DCF model throughout my calculations.

5

1

2

3

4

6

#### Q. Please describe the quarterly DCF model you use.

7 A. The quarterly DCF model I use is described on Exhibit \_\_\_\_(JVW-1, Schedule 1) and 8 in Exhibit\_\_\_(JVW-2, Appendix 2). The quarterly DCF equation shows that the cost 9 of equity is: the sum of the future expected dividend yield and the growth rate, where 10 the dividend in the dividend yield is the equivalent future value of the four quarterly 11 dividends at the end of the year, and the growth rate is the expected growth in 12 dividends or earnings per share.

13

# 14 Q. How do you estimate the quarterly dividend payments in your quarterly DCF 15 model?

16 A. The quarterly DCF model requires an estimate of the dividends,  $d_1$ ,  $d_2$ ,  $d_3$ , and  $d_4$ , 17 investors expect to receive over the next four quarters. I estimate the next four 18 quarterly dividends by multiplying the previous four quarterly dividends by the 19 factor, (l + the growth rate, g).

20

# Q. Can you illustrate how you estimate the next four quarterly dividends with data for a specific company?

A. Yes. In the case of ALLETE, the first company shown in Exhibit\_\_\_(JVW-1,
Schedule 1), the last four quarterly dividends are each equal to .44. Thus dividends

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 23 of 50

		$d_1$ , $d_2$ , $d_3$ and $d_4$ are equal to 0.463 [.44 x (1 + .0533) = 0.463]. As noted previously,
		the logic underlying this procedure is described in Exhibit(JVW-2, Appendix 2.)
C	<b>2</b> .	How do you estimate the growth component of the quarterly DCF model?
ŀ	4.	I use the analysts' estimates of future earnings per share ("EPS") growth reported by
		I/B/E/S Thomson Reuters.
		•
(	Q.	What are the analysts' estimates of future EPS growth?
ł	A.	As part of their research, financial analysts working at Wall Street firms periodically
		estimate EPS growth for each firm they follow. The EPS forecasts for each firm are
		then published. Investors who are contemplating purchasing or selling shares in
		individual companies review the forecasts. These estimates represent three- to five-
		year forecasts of EPS growth.
(	Q.	What is I/B/E/S?
1	A.	I/B/E/S is a division of Thomson Reuters that reports analysts' EPS growth forecasts
		for a broad group of companies. The forecasts are expressed in terms of a mean
		forecast and a standard deviation of forecast for each firm. Investors use the mean
		forecast as an estimate of future firm performance.
•	Q.	Why do you use the I/B/E/S growth estimates?
4	<b>A</b> .	The I/B/E/S growth rates: (1) are widely circulated in the financial community,
		(2) include the projections of reputable financial analysts who develop estimates of
		future EPS growth, (3) are reported on a timely basis to investors, and (4) are widely
		used by institutional and other investors.

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 24 of 50

2

Q.

### 3

4

5

6

7

8

9

10

# Why do you rely on analysts' projections of future EPS growth in estimating the investors' expected growth rate rather than relying on historical or retention growth rates?

A. I rely on analysts' projections of future EPS growth rather than historical or retention growth rates because there is considerable empirical evidence that analysts' forecasts are the best estimate of investors' expectation of future long-term growth. The evidence that analysts' forecasts are the best estimate of investors' expectation of future long-term growth is important because the DCF model requires the growth expectations of investors.

11

12

13

## Q. Have you performed any studies concerning the use of analysts' forecasts as an estimate of investors' expected growth rate, g?

A. Yes, I prepared a study in conjunction with Willard T. Carleton, Professor of Finance
Emeritus at the University of Arizona, on why analysts' forecasts are the best
estimate of investors' expectation of future long-term growth. This study is described
in a paper entitled "Investor Growth Expectations and Stock Prices: the Analysts
versus History," published in *The Journal of Portfolio Management*.

19

20

### Q. Please summarize the results of your study.

A. First, we performed a correlation analysis to identify the historically oriented growth rates which best described a firm's stock price. Then we did a regression study comparing the historical growth rates with the average I/B/E/S analysts' forecasts. In every case, the regression equations containing the average of analysts' forecasts statistically outperformed the regression equations containing the historical growth

> Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 25 of 50

1		estimates. These results are consistent with those found by Cragg and Malkiel, the
2		early major research in this area (John G. Cragg and Burton G. Malkiel, Expectations
3		and the Structure of Share Prices, University of Chicago Press, 1982). These results
4		are also consistent with the hypothesis that investors use analysts' forecasts, rather
5		than historically oriented growth calculations, in making stock buy and sell decisions.
6		They provide overwhelming evidence that the analysts' forecasts of future growth are
7		superior to historically-oriented growth measures in predicting a firm's stock price.
8		
9	Q.	Has your study been updated to include more recent data?
10	Α.	Yes. Researchers at State Street Financial Advisors updated my study using data
11		through year-end 2003. Their results continue to confirm that analysts' growth
12		forecasts are superior to historically-oriented growth measures in predicting a firm's
13		stock price.
14		
15	Q.	What price do you use in your DCF model?
16	Α.	I use a simple average of the monthly high and low stock prices for each firm for the
17		three-month period ending December 2010. These high and low stock prices were
18		obtained from Thomson Reuters.
19		
20	Q.	Why do you use the three-month average stock price in applying the DCF
21		method?
22	Α.	I use the three-month average stock price in applying the DCF method because stock
23		prices fluctuate daily, while financial analysts' forecasts for a given company are
24		generally changed less frequently, often on a quarterly basis. Thus, to match the
25		

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 26 of 50 stock price with an earnings forecast, it is appropriate to average stock prices over a three-month period.

3

4

5

6

1

2

### Q. Do you include an allowance for flotation costs in your DCF analysis?

A. Yes. I include a five percent allowance for flotation costs in my DCF calculations. A complete explanation of the need for flotation costs is contained in Exhibit\_\_\_(JVW-2, Appendix 3).

7 8

#### 9 Q. Please explain your inclusion of flotation costs.

10 Α. All firms that have sold securities in the capital markets have incurred some level of 11 flotation costs, including underwriters' commissions, legal fees, printing expense, etc. 12 These costs are withheld from the proceeds of the stock sale or are paid separately, and must be recovered over the life of the equity issue. Costs vary depending upon 13 14 the size of the issue, the type of registration method used and other factors, but in 15 general these costs range between three and five percent of the proceeds from the 16 issue [see Lee, Inmoo, Scott Lochhead, Jay Ritter, and Quanshui Zhao, "The Costs of 17 Raising Capital," The Journal of Financial Research, Vol. XIX No 1 (Spring 1996), 18 59-74, and Clifford W. Smith, "Alternative Methods for Raising Capital," Journal of 19 Financial Economics 5 (1977) 273-307]. In addition to these costs, for large equity 20 issues (in relation to outstanding equity shares), there is likely to be a decline in price 21 associated with the sale of shares to the public. On average, the decline due to market 22 pressure has been estimated at two to three percent [see Richard H. Pettway, "The 23 Effects of New Equity Sales upon Utility Share Prices," Public Utilities Fortnightly, 24 May 10, 1984, 35-39]. Thus, the total flotation cost, including both issuance 25 expense and market pressure, could range anywhere from five to eight percent of the

> Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 27 of 50

proceeds of an equity issue. I believe a combined five percent allowance for flotation costs is a conservative estimate that should be used in applying the DCF model in this proceeding.

4

3

1

. 2

### 5 Q. Is a flotation cost adjustment only appropriate if a company issues stock during 6 the test year?

7 Α. As described in Exhibit\_\_\_(JVW-2, Appendix 3), a flotation cost adjustment is 8 required whether or not a company issues new stock during the test year. Previously 9 incurred flotation costs have not been recovered in previous rate cases; rather, they 10 are a permanent cost associated with past issues of common stock. Just as an adjustment is made to the embedded cost of debt to reflect previously incurred debt 11 12 issuance costs (regardless of whether additional bond issuances were made in the test 13 year), so should an adjustment be made to the cost of equity regardless of whether a 14 company issues stock during the test year.

15

### Q. Does an allowance for recovery of flotation costs associated with stock sales in prior years constitute retroactive rate-making?

18 A. No. An adjustment for flotation costs on equity is not meant to recover any cost that 19 is properly assigned to prior years. In fact, the adjustment allows a company to 20 recover only the current carrying costs associated with flotation expenses incurred at 21 the time stock sales were made. The original flotation costs themselves will never be 22 recovered, because the stock is assumed to have an infinite life.

23

### Q. How do you apply the DCF approach to obtain the cost of equity capital for Gulf Power?

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 28 of 50

I apply the DCF approach to the Value Line electric companies shown in 1 Α. 2 Exhibit\_\_\_(JVW-1, Schedule 1).

- 3
- 4

5

6

8

9

10

#### How do you select your proxy group of electric companies? Q.

I select all the companies in Value Line's groups of electric companies that: (1) paid Α. dividends during every quarter of the last two years; (2) did not decrease dividends during any quarter of the past two years; (3) have at least three analysts included in 7 the I/B/E/S mean growth forecast; (4) have an investment grade bond rating and a Value Line Safety Rank of 1, 2, or 3; and (5) are not the subject of a merger offer that has not been completed.

11

12

13

#### Why do you eliminate companies that have either decreased or eliminated their Q. dividend in the past two years?

The DCF model requires the assumption that dividends will grow at a constant rate 14 Α. 15 into the indefinite future. If a company has either decreased or eliminated its dividend in recent years, an assumption that the company's dividend will grow at the 16 same rate into the indefinite future is questionable. 17

18

25

#### Why do you eliminate companies that have fewer than three analysts included in 19 **Q**. 20 the I/B/E/S mean forecasts?

The DCF model also requires a reliable estimate of a company's expected future 21 Α. growth. For most companies, the I/B/E/S mean growth forecast is the best available 22 23 estimate of the growth term in the DCF model. However, the I/B/E/S estimate may 24 be less reliable if the mean estimate is based on the inputs of very few analysts. On

> Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-El Page 29 of 50

the basis of my professional judgment, I believe that at least three analysts' estimates are a reasonable minimum number.

Q. Why do you eliminate companies that are being acquired in transactions that are
 not yet completed?

6 A. A merger announcement generally increases the target company's stock price, but not 7 the acquiring company's stock price. Analysts' growth forecasts for the target 8 company, on the other hand, are necessarily related to the company as it currently 9 exists. The use of a stock price that includes the growth-enhancing prospects of 10 potential mergers in conjunction with growth forecasts that do not include the growth-11 enhancing prospects of potential mergers produces DCF results that tend to distort a 12 company's cost of equity.

13

1

2

3

## 14 Q. Please summarize the results of your application of the DCF model to your 15 proxy company group.

A. As shown on Exhibit\_\_\_(JVW-1, Schedule 1), I obtain a market-weighted average
 DCF result of 10.7 percent and a simple average result of 11.4 percent for my proxy
 company group.

19

20

### B. RISK PREMIUM METHOD

### Q. Please describe the risk premium method of estimating Gulf Power's cost of equity.

A. The risk premium method is based on the principle that investors expect to earn a
return on an equity investment in Gulf Power that reflects a "premium" over and
above the return they expect to earn on an investment in a portfolio of bonds. This

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 30 of 50

- equity risk premium compensates equity investors for the additional risk they bear in making equity investments versus bond investments.

- Q. Does the risk premium approach specify what debt instrument should be used to estimate the interest rate component in the methodology?
- A. No. The risk premium approach can be implemented using virtually any debt instrument. However, the risk premium approach does require that the debt instrument used to estimate the risk premium be the same as the debt instrument used to calculate the interest rate component of the risk premium approach. For example, if the risk premium on equity is calculated by comparing the returns on stocks and the returns on A-rated utility bonds, then the interest rate on A-rated utility bonds must be used to estimate the interest rate component of the risk premium approach.

Q. Does the risk premium approach require that the same companies be used to
estimate the stock return as are used to estimate the bond return?

A. No. For example, many analysts apply the risk premium approach by comparing the
 return on a portfolio of stocks to the return on Treasury securities such as long-term
 Treasury bonds. Clearly, in this widely-accepted application of the risk premium
 approach, the same companies are not used to estimate the stock return as are used to
 estimate the bond return, since the U.S. government is not a company.

Q.

How do you measure the required risk premium on an equity investment in Gulf Power?

> Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 31 of 50

A. I use two methods to estimate the required risk premium on an equity investment in
 Gulf Power. The first is called the ex ante risk premium method and the second is
 called the ex post risk premium method.

- 4
- 5

12

13

14

15

16

17

### 1. EX ANTE RISK PREMIUM METHOD

Q. Please describe your ex ante risk premium approach for measuring the required
 risk premium on an equity investment in Gulf Power.

8 A. My ex ante risk premium method is based on studies of the DCF expected return on a 9 proxy group of electric companies compared to the interest rate on Moody's A-rated 10 utility bonds. Specifically, for each month in my study period, I calculate the risk 11 premium using the equation,

- $RP_{PROXY} = DCF_{PROXY} I_A$
- where:

RP<sub>PROXY</sub> = the required risk premium on an equity investment in the proxy group of companies;

DCF<sub>PROXY</sub> = average DCF estimated cost of equity on a portfolio of proxy companies; and

the yield to maturity on an investment in A-rated utility bonds. 18 I, 19 I then perform a regression analysis to determine if there is a relationship between the calculated risk premium and interest rates. Finally, I use the results of the regression 20 analysis to estimate the investors' required risk premium. To estimate the cost of 21 equity, I then add the required risk premium to the forecasted interest rate on A-rated 22 utility bonds. A detailed description of my ex ante risk premium studies is contained 23 in Exhibit\_\_\_(JVW-2, Appendix 4), and the underlying DCF results and interest rates 24 are displayed in Exhibit \_\_\_\_ (JVW-1, Schedule 2). 25

> Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 32 of 50

2

### Q. What cost of equity do you obtain from your ex ante risk premium method?

To estimate the cost of equity using the ex ante risk premium method, one may add 3 Α. the estimated risk premium over the yield on A-rated utility bonds to the forecasted 4 yield to maturity on A-rated utility bonds. As noted above, one could use the yield to 5 maturity on other debt investments to measure the interest rate component of the risk 6 premium approach as long as one uses the yield on the same debt investment to 7 measure the expected risk premium component of the risk premium approach. I 8 choose to use the yield on A-rated utility bonds because it is a frequently-used 9 benchmark for utility bond yields. The forecasted yield to maturity on A-rated utility 10 bonds, 6.15 percent, is obtained by adding the fifty-five-basis point spread between 11 the average December 2010 yield on AAA-rated corporate bonds (5.02 percent) and 12 A-rated utility bonds (5.57 percent) to Value Line's forecasted 5.6 percent yield on 13 AAA-rated corporate bonds (see Value Line Selection & Opinion, November 26, 14 2010, pp. 2534-2535). My analyses produce an estimated risk premium over the 15 yield on A-rated utility bonds equal to 4.90 percent. Adding an estimated risk 16 premium of 4.90 percent to the 6.15 percent forecasted yield to maturity on A-rated 17 utility bonds produces a cost of equity estimate of 11.0 percent using the ex ante risk 18 19 premium method.

- 20
- 21

#### 2. EX POST RISK PREMIUM METHOD

Q. Please describe your ex post risk premium method for measuring the required
risk premium on an equity investment in Gulf Power.

A. I first perform a study of the comparable returns received by bond and stock investors
 over the seventy-three years of my study. I estimate the returns on stock and bond

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 33 of 50

portfolios, using stock price and dividend yield data on the S&P 500 and bond yield 1 data on Moody's A-rated Utility Bonds. My study consists of making an investment 2 of one dollar in the S&P 500 and Moody's A-rated utility bonds at the beginning of 3 1937, and reinvesting the principal plus return each year to 2010. The return 4 associated with each stock portfolio is the sum of the annual dividend yield and 5 capital gain (or loss) which accrued to this portfolio during the year(s) in which it was 6 held. The return associated with the bond portfolio, on the other hand, is the sum of 7 the annual coupon yield and capital gain (or loss) which accrued to the bond portfolio 8 during the year(s) in which it was held. The resulting annual returns on the stock and 9 bond portfolios purchased in each year between 1937 and 2010 are shown on 10 Exhibit\_\_\_(JVW-1, Schedule 3). The average annual return on an investment in the 11 S&P 500 stock portfolio is 11.06 percent, while the average annual return on an 12 investment in the Moody's A-rated utility bond portfolio is 6.42 percent. The risk 13 premium on the S&P 500 stock portfolio is, therefore, 4.64 percent. 14

I also conduct a second study using stock data on the S&P Utilities rather than
the S&P 500. As shown on Exhibit\_\_\_(JVW-1, Schedule 4, the S&P Utility stock
portfolio shows an average annual return of 10.5 percent per year. Thus, the return on
the S&P Utility stock portfolio exceeds the return on the Moody's A-rated utility
bond portfolio by 4.1 percent.

20

Q. Why is it appropriate to perform your ex post risk premium analysis using both
the S&P 500 and the S&P Utilities stock indices?

A. I perform my ex post risk premium analysis on both the S&P 500 and the S&P
 Utilities Stock Indices because I believe electric energy companies today face risks
 that are somewhere in between the average risk of the S&P Utilities and the S&P 500

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 34 of 50 331

Stock Indices over the years 1937 to 2010. Thus, I use the average of the two historically-based risk premiums as my estimate of the required risk premium for Gulf Power in my ex post risk premium method.

4

1

2

3

5

### Q. Why do you analyze investors' experiences over such a long time frame?

Because day-to-day stock price movements can be somewhat random, it is 6 A. inappropriate to rely on short-run movements in stock prices in order to derive a 7 reliable risk premium. Rather than buying and selling frequently in anticipation of 8 highly volatile price movements, most investors employ a strategy of buying and 9 holding a diversified portfolio of stocks. This buy-and-hold strategy will allow an 10 investor to achieve a much more predictable long-run return on stock investments and 11 at the same time will minimize transaction costs. The situation is very similar to the 12 problem of predicting the results of coin tosses. I cannot predict with any reasonable 13 degree of accuracy the result of a single, or even a few, flips of a balanced coin; but I 14 can predict with a good deal of confidence that approximately 50 heads will appear in 15 100 tosses of this coin. Under these circumstances, it is most appropriate to estimate 16 future experience from long-run evidence of investment performance. 17

18

Q. Would your study provide a different risk premium if you were to begin with a
 different time period?

A. Yes. Risk premium results vary somewhat depending on the historical time period
 chosen. My policy is to go back as far as it is possible to obtain reliable data. I
 believe it to be most meaningful to begin after the passage and implementation of the
 Public Utility Holding Company Act of 1935, which significantly changed the
 structure of the public utility industry. Since the Public Utility Holding Company Act

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 35 of 50 of 1935 was not implemented until the beginning of 1937, I believe that numbers taken from before this date are not comparable to those taken after. (The repeal of the 1935 Act has not materially impacted the structure of the public utility industry; thus, the Act's repeal does not have any impact on my choice of time period.)

5

1

2

3

4

6

7

### Q. Why is it necessary to examine the yield from debt investments in order to determine the investors' required rate of return on equity capital?

8 Α. As previously explained, investors expect to earn a return on their equity investment 9 that exceeds currently available bond yields. This is because the return on equity, 10 being a residual return, is less certain than the yield on bonds and investors must be 11 compensated for this uncertainty. Second, the investors' current expectations 12 concerning the amount by which the return on equity will exceed the bond yield will 13 be strongly influenced by historical differences in returns to bond and stock investors. 14 For these reasons, we can estimate investors' current expected returns from an equity investment from knowledge of current bond yields and past differences between 15 16 returns on stocks and bonds.

17

### Q. Is there any significant trend in the equity risk premium over the 1937 to 2010 time period of your risk premium study?

A. No. Statisticians test for trends in data series by regressing the data observations against time. I perform such a time series regression on my two data sets of historical risk premiums. As shown below, there is no statistically significant trend in my risk premium data. Indeed, the coefficient on the time variable is insignificantly different from zero (if there were a trend, the coefficient on the time variable should be significantly different from zero).

> Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 36 of 50

TABLE 1	
REGRESSION OUTPUT FOR RISK PREMIUM ON S&P	500

LINE NO.		INTERCEPT	TIME	ADJUSTED R SQUARE	F
1	Coefficient	2.691	(0.001)	0.015	2.07
2	T Statistic	1.465	(1.440)		

5

8

9

10

11

12

12

TABLE 2
<b>REGRESSION OUTPUT FOR RISK PREMIUM ON S&amp;P UTILITIES</b>

LINE NO.		INTERCEPT	TIME	ADJUSTED R SQUARE	F
1	Coefficient	1.784	(0.001)	0.002	1.12
2	T Statistic	1.085	(1.060)		

### Q. Do you have any other evidence that there has been no significant trend in risk premium results over time?

A. Yes. The *Ibbotson<sup>®</sup> SBBI<sup>®</sup> 2010 Valuation Yearbook* ("SBBI") published by Morningstar, Inc., contains an analysis of "trends" in historical risk premium data. SBBI uses correlation analysis to determine if there is any pattern or "trend" in risk premiums over time. This analysis also demonstrates that there are no trends in risk premiums over time.

13

### Q. What is the significance of the evidence that historical risk premiums have no trend or other statistical pattern over time?

A. The significance of this evidence is that the average historical risk premium is a
 reasonable estimate of the future expected risk premium. As noted in SBBI:

18 The significance of this evidence is that the realized equity risk 19 premium next year will not be dependent on the realized equity risk 20 premium from this year. That is, there is no discernable pattern in the 21 realized equity risk premium—it is virtually impossible to forecast 22 next year's realized risk premium based on the premium of the

> Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 37 of 50

previous year. For example, if this year's difference between the riskless rate and the return on the stock market is higher than last year's, that does not imply that next year's will be higher than this year's. It is as likely to be higher as it is lower. The best estimate of the expected value of a variable that has behaved randomly in the past is the average (or arithmetic mean) of its past values. [SBBI, page 58.]

# 8 Q. What conclusions do you draw from your ex post risk premium analyses about 9 the required return on an equity investment in Gulf Power?

My studies provide strong evidence that investors today require an equity return of 10 Α. approximately 4.1 to 4.6 percentage points above the expected yield on A-rated utility 11 bonds. The forecast yield on A-rated utility bonds at 2010 is 6.15 percent. Adding a 12 4.1 to 4.6 percentage point risk premium to a yield of 6.15 percent on A-rated utility 13 bonds, I obtain an expected return on equity in the range 10.2 percent to 10.8 percent, 14 with a midpoint of 10.5 percent. Adding a twenty-six basis-point allowance for 15 flotation costs, I obtain an estimate of 10.8 percent as the ex post risk premium cost of 16 equity for Gulf Power. I determine the flotation cost allowance by calculating the 17 difference in my DCF results with and without a flotation cost allowance. 18

19

20

1

2

3

4

5

6

7

#### C. CAPITAL ASSET PRICING MODEL

21 Q.

#### What is the CAPM?

- A. The CAPM is an equilibrium model of the security markets in which the expected or
   required return on a given security is equal to the risk-free rate of interest, plus the
   company equity "beta," times the market risk premium:
- 25

Cost of equity = Risk-free rate + Equity beta x Market risk premium

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 38 of 50 The risk-free rate in this equation is the expected rate of return on a risk-free government security, the equity beta is a measure of the company's risk relative to the market as a whole, and the market risk premium is the premium investors require to invest in the market basket of all securities compared to the risk-free security.

5

6

7

1

2

3

4

## Q. How do you use the CAPM to estimate the cost of equity for your proxy companies?

The CAPM requires an estimate of the risk-free rate, the company-specific risk factor 8 Α. 9 or beta, and the expected return on the market portfolio. For my estimate of the riskfree rate, I use the forecasted yield to maturity on 20-year Treasury bonds of 10 4.8 percent, using data from Value Line. I use the 20-year Treasury bond to estimate 11 12 the risk-free rate because SBBI estimates the risk premium using 20-year Treasury bonds, and one should use the same maturity to estimate the risk-free rate as is used 13 14 to estimate the risk premium on the market portfolio. Value Line projects a yield on long-term Treasury bonds at 2012 equal to 4.7 percent. The current spread between 15 16 the average December yield on 30-year Treasury bonds (4.42 percent) and 20-year 17 Treasury bonds (4.17 percent) is twenty-five basis points. Subtracting twenty-five 18 basis points from the 4.7 percent forecasted yield on long-term Treasury bonds produces a forecasted yield of 4.45 percent for 20-year Treasury bonds (see Value 19 20 Line Investment Survey, Selection & Opinion, November 26, 2010, p. 2534 – 2535).

For my estimate of the company-specific risk, or beta, I use the average 0.67 Value Line beta for my proxy electric companies. For my estimate of the expected risk premium on the market portfolio, I use two approaches. First, I estimate the risk premium on the market portfolio using historical risk premium data reported by SBBI. Second, I estimate the risk premium on the market portfolio from the

> Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 39 of 50

difference between the DCF cost of equity for the S&P 500 and the forecasted yield to maturity on 20-year Treasury bonds.

3 4

1

2

### 1. HISTORICAL CAPM

5 Q. How do you estimate the expected risk premium on the market portfolio using 6 historical risk premium data reported by SBBI?

A. I estimate the expected risk premium on the market portfolio by calculating the difference between the arithmetic mean return on the S&P 500 from 1926 through 2009 (11.8 percent) and the average income return on 20-year U.S. Treasury bonds over the same period (5.2 percent) (see Ibbotson<sup>®</sup> SBBI<sup>®</sup> 2010 Valuation Yearbook,
p. 23, published by Morningstar<sup>®</sup>). Thus, my historical risk premium method produces a risk premium of 6.7 percent (11.8 - 5.2 = 6.7) (apparent discrepancy due to rounding).

14

# Q. Why do you recommend that the risk premium on the market portfolio be estimated using the arithmetic mean return on the S&P 500?

A. As explained in SBBI, the arithmetic mean return is the best approach for calculating
the return investors expect to receive in the future:

19 The equity risk premium data presented in this book are arithmetic 20 average risk premia as opposed to geometric average risk premia. The 21 arithmetic average equity risk premium can be demonstrated to be 22 most appropriate when discounting future cash flows. For use as the 23 expected equity risk premium in either the CAPM or the building 24 block approach, the arithmetic mean or the simple difference of the 25 arithmetic means of stock market returns and riskless rates is the

> Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 40 of 50

relevant number. This is because both the CAPM and the building 1 block approach are additive models, in which the cost of capital is the 2 sum of its parts. The geometric average is more appropriate for 3 reporting past performance, since it represents the compound average 4 return. [SBBI, p. 56.] 5 A discussion of the importance of using arithmetic mean returns in the context of 6 CAPM or risk premium studies is contained in Exhibit\_\_\_(JVW-1, Schedule 5). 7 Why do you recommend that the risk premium on the market portfolio be 8 **Q**. measured using the income return on 20-year Treasury bonds rather than the 9 10 total return on these bonds? As discussed above, the CAPM requires an estimate of the risk-free rate of interest. 11 Α. When Treasury bonds are issued, the income return on the bond is risk free, but the 12 total return, which includes both income and capital gains or losses, is not. Thus, the 13 income return should be used in the CAPM because it is only the income return that is 14 15 risk free. 16 What CAPM result do you obtain when you estimate the expected risk premium 17 **O**. on the market portfolio from the arithmetic mean difference between the return 18 on the market and the yield on 20-year Treasury bonds? 19 20 Α. Using a risk-free rate equal to 4.45 percent, a beta equal to 0.67, a risk premium on the market portfolio equal to 6.7 percent, and a flotation cost allowance of 26 basis 21 22 points, I obtain an historical CAPM estimate of the cost of equity equal to 9.2 percent  $(4.45 + 0.67 \times 6.7 + 0.26 = 9.2)$ , see Exhibit\_\_\_\_(JVW-1, Schedule 6). 23 24 25

> Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 41 of 50

Is there any evidence from the finance literature that the application of the 0. 1 historical CAPM may underestimate the cost of equity? 2 (1) the historical CAPM tends to There is substantial evidence that: 3 Yes. Α. underestimate the cost of equity for companies whose equity beta is less than 1.0; and 4 (2) the CAPM is less reliable the further the estimated beta is from 1.0. 5 6 What is the evidence that the CAPM tends to underestimate the cost of equity 7 0. for companies with betas less than 1.0 and is less reliable the further the 8 estimated beta is from 1.0? 9 The original evidence that the unadjusted CAPM tends to underestimate the cost of 10 Α. equity for companies whose equity beta is less than 1.0 and is less reliable the further 11 the estimated beta is from 1.0 was presented in a paper by Black, Jensen, and Scholes 12 (1972), "The Capital Asset Pricing Model: Some Empirical Tests." Numerous 13 14 subsequent papers have validated the Black, Jensen, and Scholes findings, including 15 those by Litzenberger and Ramaswamy (1979), Banz (1981), Fama and French 16 (1992), Fama and French (2004), Fama and MacBeth (1973), and Jegadeesh and 17 Titman (1993).1

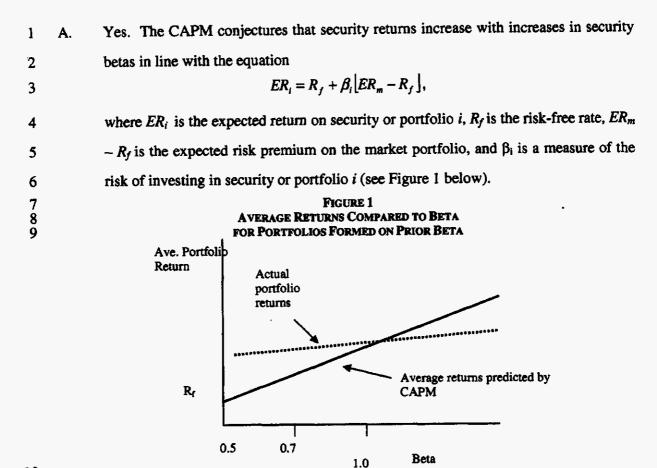
18

1

#### 19 Q. Can you briefly summarize these articles?

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 42 of 50

<sup>Fischer Black, Michael C. Jensen, and Myron Scholes, "The Capital Asset Pricing Model: Some Empirical Tests,"</sup> in Studies in the Theory of Capital Markets, M. Jensen, ed. New York: Praeger, 1972; Eugene Fama and James MacBeth, "Risk, Return, and Equilibrium: Empirical Tests," Journal of Political Economy 81 (1973), pp. 607-36; Robert Litzenberger and Krishna Ramaswamy, "The Effect of Personal Taxes and Dividends on Capital Asset Prices: Theory and Empirical Evidence," Journal of Financial Economics 7 (1979), pp. 163-95.; Rolf Banz, "The Relationship between Return and Market Value of Common Stocks," Journal of Financial Economics (March 1981), pp. 3-18; Eugene F. Fama and Kenneth R. French, "The Cross-Section of Expected Returns," Journal of Finance (June 1992), 47:2, pp. 427-465; Eugene F. Fama and Kenneth R. French, "The Capital Asset Pricing Model: Theory and Evidence," The Journal of Economic Perspectives (Summer 2004), 18:3, pp. 25 – 46; Narasimhan Jegadeesh and Sheridan Titman, "Returns to Buying Winners and Selling Losers: Implications for Stock Market Efficiency," The Journal of Finance, Vol. 48, No. 1. (Mar., 1993), pp. 65-91.



11 Financial scholars have studied the relationship between estimated portfolio betas and the achieved returns on the underlying portfolio of securities to test whether the 12 CAPM correctly predicts achieved returns in the marketplace. They find that the 13 relationship between returns and betas is inconsistent with the relationship posited by 14 the CAPM. As described in Fama and French (1992) and Fama and French (2004), 15 the actual relationship between portfolio betas and returns is shown by the dotted line 16 in Figure 1 above. Although financial scholars disagree on the reasons why the 17 return/beta relationship looks more like the dotted line in Figure 1 than the straight 18 line, they generally agree that the dotted line lies above the straight line for portfolios 19

> Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 43 of 50

340

with betas less than 1.0 and below the straight line for portfolios with betas greater than 1.0. Thus, in practice, scholars generally agree that the CAPM underestimates portfolio returns for companies with betas less than 1.0 and is less reliable the further the estimated beta is from 1.0.

5

1

2

3

4

6

7

### Q. Do you have additional evidence that the CAPM tends to underestimate the cost of equity for utility companies with average betas less than 1.0?

Yes. As shown in Exhibit\_\_\_\_(JVW-1, Schedule 7), over the period 1937 through 8 Α. 9 2009, investors in the S&P Utilities Stock Index have earned a risk premium over the 10 yield on long-term Treasury bonds equal to 5.06 percent, while investors in the S&P 11 500 have earned a risk premium over the yield on long-term Treasury bonds equal to 5.64 percent. According to the CAPM, investors in utility stocks should expect to 12 13 earn a risk premium over the yield on long-term Treasury securities equal to the average utility beta times the expected risk premium on the S&P 500. Thus, the ratio 14 of the risk premium on the utility portfolio to the risk premium on the S&P 500 15 should equal the utility beta. However, the average utility beta at the time of my 16 17 studies is approximately 0.67, whereas the historical ratio of the utility risk premium to the S&P 500 risk premium is  $0.90 (5.06 \div 5.64 = 0.90)$ . In short, an application of 18 19 the historical CAPM at this time significantly underestimates the cost of equity for utility companies with an average beta less than 1.0. 20

21

Q. What conclusions do you draw from your review of the CAPM literature and the
evidence that utility betas are significantly less than the historical ratio of the
utility risk premium to the S&P 500 risk premium?

25

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 44 of 50

I conclude that the CAPM underestimates the cost of equity for companies with betas A. 1 significantly less than 1.0 and is less reliable the further the estimated beta is from 2 1.0. I also conclude that stock market activity can greatly affect betas. The 3 significant volatility in the stock market in the last two years has led to a steep drop in 4 utility betas. The drop in utility betas is important because the further the beta is from 5 1.0, the less reliable are the results of applying the CAPM to low beta companies such 6 as utilities. Given that the average beta for my proxy group of electric utilities is 7 0.67, I conclude that the cost of equity model results from applying the CAPM should 8 be given little or no weight for the purpose of estimating Gulf Power's cost of equity 9 10 in this proceeding.

- 11
- 12

#### 2. DCF-BASED CAPM

#### 13 O. How does your DCF-Based CAPM differ from your historical CAPM?

A. As noted above, my DCF-based CAPM differs from my historical CAPM only in the
method I use to estimate the risk premium on the market portfolio. In the historical
CAPM, I use historical risk premium data to estimate the risk premium on the market
portfolio. In the DCF-based CAPM, I estimate the risk premium on the market
portfolio from the difference between the DCF cost of equity for the S&P 500 and the
forecasted yield to maturity on 20-year Treasury bonds.

20

### Q. What risk premium do you obtain when you calculate the difference between the DCF-return on the S&P 500 and the risk-free rate?

- A. Using this method, I obtain a risk premium on the market portfolio equal to
  8.85 percent [see Exhibit....(JVW-1, Schedule 8)].
- 25

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 45 of 50

What CAPM result do you obtain when you estimate the expected return on the 1 0. market portfolio by applying the DCF model to the S&P 500? 2 Using a risk-free rate of 4.45 percent, a beta of 0.67, a risk premium on the market 3 Α. portfolio of 8.85 percent, and a flotation cost allowance of 26 basis points, I obtain a 4 CAPM result of 10.7 percent (apparent discrepancy due to rounding). 5 6 Recognizing that the CAPM underestimates the cost of equity for companies 7 0. such as your proxy companies with betas significantly less than 1.0, how do you 8 recommend that the Commission consider your CAPM cost of equity results in 9 this proceeding? 10 Given that the CAPM underestimates the cost of equity for companies such as my 11 Α. 12 proxy companies with betas significantly less than 1.0, I recommend that the Commission give little or no weight to the cost of equity results obtained from my 13 CAPM analyses at this time. 14 15 VI. FAIR RATE OF RETURN ON EQUITY 16 17 Q. Based on your application of several cost of equity methods to your proxy 18 companies, what is your conclusion regarding your proxy companies' cost of 19 equity? Based on my application of several cost of equity methods to my proxy companies, I 20 Α. conclude that my proxy companies' cost of equity is 10.8 percent. As shown in the 21 22 table below, 10.8 percent is the simple average of my DCF, ex ante risk premium, and 23 ex post risk premium results.

> Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 46 of 50

	MODEL
METHOD	RESULT
<b>Discounted Cash Flow</b>	10.7%
Ex Ante Risk Premium	11.0%
Ex Post Risk Premium	10.8%
Average	10.8%

		TAB	LE 3	
COST O	F EQ	UITY	MODEL	RESULTS

12

Q. Does your conclusion that the cost of equity for your proxy group is 10.8 percent
depend on the percentages of debt and equity in your proxy companies' average
capital structure?

7 Yes. The 10.8 percent cost of equity results for my proxy group reflects the financial Α. 8 risk associated with the average market value capital structure of my comparable 9 company group. If Gulf Power's ratemaking, or book value capital structure, is used to set rates, the cost of equity for Gulf Power will necessarily be higher than the cost 10 11 of equity for the proxy group because the financial risk associated with Gulf Power's 12 book value capital structure is greater than the financial risk reflected in the cost of 13 equity estimate for my proxy company group (See Section II above for a discussion of why investors use market value capital structure weights to assess a company's 14 15 financial risk).

16

17 Q. What are the percentages of debt and equity in your proxy companies'
 18 composite capital structures?

A. As shown in Exhibit\_\_\_(JVW-1, Schedule 9), my electric company group has a
composite capital structure containing approximately 4.59 percent short-term debt,
39.77 percent long-term debt, 0.56 percent preferred equity, and 55.08 percent
common equity.

Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 47 of 50

How does Gulf Power's rate making capital structure for the purpose of rate Q. setting in this proceeding compare to the average capital structure of your proxy companies?

Gulf Power's rate making capital structure contains 1.29 percent short-term debt, Α. 47.21 percent long-term debt, 5.24 percent preferred equity, and 46.26 percent common equity. Although this capital structure contains an appropriate mix of debt and equity and is a reasonable capital structure for ratemaking purposes, from an investor's viewpoint, Gulf Power's ratemaking capital structure embodies greater financial risk than is reflected in my cost of equity estimates from my proxy companies.

12

1

2

3

4

5

6

7

8

9

10

11

14

15

You discuss above that the cost of equity depends on a company's capital 13 Q. structure. Is there any way to adjust the 10.8 percent cost of equity for your proxy companies to reflect the higher financial risk of Gulf Power's rate making capital structure in this proceeding? 16

Yes. Since my proxy groups are similar in risk to Gulf Power, Gulf Power should 17 Α. have the same weighted average cost of capital as my proxy companies. One may 18 easily determine the cost of equity Gulf Power would need in order to have the same 19 weighted average cost of capital as my proxy companies. 20

21

#### Do you perform such a calculation? 22 Q.

Yes. I adjust the 10.8 percent average cost of equity for my proxy groups by 23 Α. recognizing that to attract capital, Gulf Power must have the same weighted average 24 cost of capital as my proxy group. My analysis, which is shown on Exhibit \_\_\_\_ 25

> Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 48 of 50

345

1		(JVW-1, Schedule 10), indicates that Gulf Power would require a fair rate of return
2		on equity equal to 11.7 percent in order to have the same weighted average cost of
3		capital as my proxy companies.
4		
5	Q.	What cost of equity do you recommend in this proceeding?
6	А.	I recommend a cost of equity equal to 11.7 percent.
7		
8	Q.	Does this conclude your pre-filed direct testimony?
9	А.	Yes, it does.
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
		Direct Testimony of James H Vander Weide Ph D

#### Direct Testimony of James H. Vander Weide, Ph.D. On Behalf of Gulf Power Company Florida Public Service Commission Docket No. 110138-EI Page 49 of 50

_	
1	CONTINUED DIRECT EXAMINATION
2	BY MR. MELSON:
3	Q And did you have two exhibits attached to your
4	testimony, Exhibit JVW-1 consisting of ten schedules and
5	Exhibit JVW-2 consisting of five appendices?
6	A Yes, I did.
7	Q Do you have any changes or corrections to
8	those exhibits?
9	A No, I do not.
10	MR. MELSON: Just for the record,
11	Mr. Chairman, those have been marked as Exhibits 11
12	and 12 on the consolidated exhibit list.
13	CHAIRMAN GRAHAM: Noted.
14	(Exhibit Nos. 11 and 12 were marked for
15	identification.)
16	BY MR. MELSON:
17	Q Dr. Vander Weide, would you please give a
. 18	brief summary of your testimony?
19	A Yes. My name is James H. Vander Weide and I
20	am Research Professor of Finance and Economics at Duke
21	University. I have a bachelor's degree in economics
22	from Cornell University and a Ph.D. in finance from
23	Northwestern University. I have published research in
24	the areas of finance and economics and have taught
25	courses in these areas for over 35 years. I'm now FLORIDA PUBLIC SERVICE COMMISSION

retired from my teaching duties at Duke. 1 As an expert on financial and economic theory 2 and practice, including cost of capital and capital 3 structure, I have testified in several hundred legal and 4 regulatory proceedings. The purpose of my testimony is 5 to prepare an independent appraise of Gulf Power's cost 6 of equity and to recommend a rate of return on equity 7 that is fair that allows Gulf Power to attract capital 8 and that allows Gulf Power to maintain its financial 9 10 integrity. I estimated Gulf Power's cost of equity in two 11 First I applied several standard costs of equity 12 steps. methodologies to a large proxy group of comparable 13 companies, including both the discounted cash flow 14 approach and the risk premium approach. 15 My application of the DCF or discounted cash 16 flow method, produces a cost of equity of 10.7 percent. 17 My application of the ex-anti and ex-post risk premium 18 methods produced cost of equity results equal to 19 11 percent and 10.8 percent. The average of the DCF and 20 risk premium results is 10.8 percent. 21 Second, I adjust the average cost of equity 22 from my comparable companies to reflect the difference 23 in the financial risk of my comparable companies as 24 measured in the marketplace and the financial risk 25 FLORIDA PUBLIC SERVICE COMMISSION

1 implied by Gulf Power's rate-making capital structure. Such a step is necessary because the 10.8 percent cost 2 3 of equity from my comparable companies depends on their 4 financial risk, which is measured by the market values 5 of debt and equity in their capital structures. 6 However, my estimated cost of equity is 7 applied to Gulf Power's rate-making capital structure, 8 and Gulf Power's rate-making capital structure contains 9 less equity than the average market value capital structure of my comparable companies; thus, the 10 financial risk of Gulf Power is greater than the 11 financial risk of my comparable companies. Adjusting 12 13 the cost of equity for my comparable companies to reflect this difference in financial risk produces a 14 cost of equity of 11.7 percent for Gulf Power. 15 16 MR. MELSON: Mr. Chairman, we tender the witness for cross examination. 17 18 CHAIRMAN GRAHAM: Thank you very much. 19 Mr. McGlothlin. 20 MR. McGLOTHLIN: Mr. Chairman, we do have several documents that I will be referring to 21 during cross. If it's appropriate, I will have 22 23 someone pass these out. CHAIRMAN GRAHAM: Please. 24 25 Mr. McGlothlin, do you have a specific order FLORIDA PUBLIC SERVICE COMMISSION

on these or --1 MR. McGLOTHLIN: I do have a specific order. 2 If it's all right, I'll bring it up one at a time 3 when we get to that point on cross. 4 CHAIRMAN GRAHAM: Sure. 5 CROSS EXAMINATION 6 BY MR. McGLOTHLIN: 7 Mr. Vander Weide, I'm Joe McGlothlin, I'm with 8 0 the Office of Public Counsel. 9 Good afternoon, sir. Α 10 I've been practicing the pronunciation of your 11 0 name and I'll be glad to help you with McGlothlin if you 12 13 need any. I think I got the easier task there. А 14 My first questions relate to your application Q 15 of the DCF method to the derivation of the return on 16 equity. One component of that analysis is the 17 quantification of a dividend as an input; is that 18 correct? 19 Yes, it is. Α 20 And you chose to employ a model that assumes 21 Q quarterly dividend payments, do you not? 22 Yes, I do. 23 Α And that's one difference between your 24 Q approach and Dr. Woolridge's approach, correct? 25 FLORIDA PUBLIC SERVICE COMMISSION

А Yes. 1 I want to pose an illustration to you. Assume 2 Q that a corporation pays dividends quarterly, the 3 quarterly dividend is \$1 and the growth rate is 4 specified as 10 percent, the growth rate of -- dividend 5 growth rate is 10 percent. 6 Would you agree with me that during the course 7 of the year an investor owning a share of the stock in 8 that company would receive \$4 in dividends? 9 I'm sorry, I'm going to have to write that 10 А down, I believe. You said that the dividend was \$1? 11 The quarterly dividend is \$1. 12 Q 13 А Okay. And there are four such dividends a 14 year? Yes. 15 Q And what was your second assumption? 16 Α 17 Q The growth rate in growth dividends is 10 percent. 18 19 А Yes. How much would an investor receive in 20 Q dividends per share over the course of the year? 21 22 А I would have to have a calculator to do that 23 It would be -math. There's one right by you to CHAIRMAN GRAHAM: 24 25 the right. FLORIDA PUBLIC SERVICE COMMISSION

	THE WITNESS: It would be an annual growth
1	THE WITNESS: It would be an annual growen
2	rate you're saying?
3	BY MR. McGLOTHLIN:
4	Q Yes.
5	Let me ask a different question, Dr. Vander
6	Weide. I didn't mean to ask for something that required
7	a calculation.
8	As I understand it, as you apply the quarterly
9	DCF model, you assume that the amount of the quarterly
10	dividend receives the growth rate and is compounded
11	throughout the year, do you not?
12	A I assume that we take the last four quarterly
13	dividends and that each of those growth rates get
14	grow by the growth rate to give you the next four
15	quarterly dividends. So if one looked at if we were
16	looking in investing in the stock on January 1, I would
17	look at the four quarterly dividends in the prior year,
18	and to estimate the next four quarterly dividends I
19	would take the last four quarterly dividends and
20	multiply by one plus the growth rate.
21	Now, if the dividends were the same in each of
22	the four quarters last year, then they would all just
23	rise by the growth rate to get the four quarterly
24	dividends next year.
25	Q If all the dividends were the same throughout

1	the year, in my example the investor would receive \$4,
2	correct?
3	A Yes.
4	Q Now, assume that the investor as the
5	investor receives the quarterly payment of \$1 each,
6	invests those dividend payments in a mutual fund, is it
7	fair to assume that the investor would receive a return
8	on that investment per quarter?
9	A They may or they may not. They would expect
10	hopefully to get some return, but we don't know whether
11	they would or wouldn't.
12	Q Okay. Let's change the example to a CD.
13	Would they expect would they get a return on that
14	investment?
15	A Currently it would be pretty close to zero,
16	but they would it would be a return of about less
17	than half of 1 percent, maybe less than a quarter of
18	1 percent.
19	Q Assume the investor receives the quarterly
20	dividends and uses those dividend payments to apply
21	towards quarterly tax liability, would that investor
22	benefit in the form of a lower liability as the investor
23	receives the quarterly payouts?
24	A They would presumably get it if they I'm
25	not sure what they would get if they applied it toward FLORIDA PUBLIC SERVICE COMMISSION

 $\frown$ 

-	
1	their tax liability. You're saying that they would owe
2	quarterly taxes and they would just pay the use the
3	dividends to pay part of their taxes for those each
4	of those quarters?
5	Q And in that event, their tax liability would
6	be reduced by the amount of the quarterly dividend that
7	they applied for that purpose, correct?
8	A Right.
9	So that's your assumption, and are you going
10	to ask me a question now about that?
11	Q It wasn't an assumption; it was a question.
12	A Well, I don't understand the question.
13	Q Okay. The question is if the investor
14	received quarterly dividends and used the quarterly
15	dividend payments to pay towards the estimated taxes,
16	would the investor see a reduced tax liability as a
17	result of the application of the dividends for that
18	purpose?
19	A They would have a reduced tax liability.
20	However, the assumption of the discounted cash flow
21	model is that you would invest those dividends in
22	another investment of the same risk so that it would
23	have the same expected return as the company, and that's
24	built into the discounting assumption.
25	That is, when you discount by the cost of FLORIDA PUBLIC SERVICE COMMISSION

capital, it's assumed that that's the return you could get on all other investments of the same risk. So you could either get that by leaving it in the company or you could get it on other investments of the same risk, but that's the return you get on all investments with that degree of risk.

7 Q I understood your answer just said the
8 investor could receive the return by leaving it in the
9 company or by investing in something of the same risk,
10 correct?

A That's built into the assumption of the DCF model that when you discount by the -- when you discount the expected cash flows by the cost to capital, it's assumed that that's the rate at which you can reinvest the cash proceeds.

Q Would you agree with me that with respect to those possibilities, earning within the company or investing in an alternative or similar risk, the investor can do one or the other but the investor can't do both with the same dividend payment?

A That is correct, but it is still -- they would still -- when they set the price of the stock, which is what the discounted cash flow model does, they would set the price equal to the present discounted value of all expected future cash flows. And if cash flows are paid FLORIDA PUBLIC SERVICE COMMISSION

1	
1	quarterly, they would discount the quarterly stream of
2	dividends.
3	And if you then wanted to determine what
4	return did they expect to earn on their investment, you
5	would sell for that discount rate which would equate the
6	present value of the cash flows to the stock price, and
7	that's what the discounted cash flow model does.
8	If you don't get dividends quarterly, then you
9	would have to sell for that discount rate which equates
10	the annual cash flows, the present value of the annual
11	cash flows to the stock price. But you can't do both,
12	you can't get dividends quarterly and attempt to equate
13	the present value of a stream of annual cash flows to
14	the stock price. That's inconsistent.
15	Q You're aware that Dr. Woolridge applies a
16	model that quantifies dividends as the dividend plus
17	one-half of the growth rate?
18	A Yes, I am.
19	Q Do you agree with Dr. Woolridge that this is
20	the same methodology that the FERC uses?
21	MR. MELSON: Mr. Chairman, I'm going to lodge
22	an objection. He is really asking questions that
23	are better directed to the rebuttal. I don't mind
24	the witness answering them, but he's really beyond
25	the scope of direct once he starts comparing what FLORIDA PUBLIC SERVICE COMMISSION

Dr. Woolridge testifies when Dr. Woolridge hasn't 1 2 been here yet. MR. McGLOTHLIN: I'll rephrase the question. 3 CHAIRMAN GRAHAM: Please. 4 BY MR. McGLOTHLIN: 5 Dr. Vander Weide, are you familiar with the 6 Q method that the FERC uses? 7 8 Yes, I am. А Is it true that the FERC employs a model of 9 Q the DCF that quantifies dividends as a dividend plus 10 one-half of the growth rate? 11 Yes, it is. 12 Α 13 We've referred to the growth rate and that has 0 to do with the rate of growth of the dividends over 14 15 time, does it not? 16 Α One can say that it has -- one could 17 characterize it that way. But in the DCF model, the earnings, the dividends, and the book value and the 18 19 stock price are all expected to grow at the same rate. So one would just properly, I guess, call that the 20 growth rate of the company. All of the variables grow 21 at the same rate in the discounted cash flow 22 23 assumptions. Including the dividends? 24 Q 25 А Yes. FLORIDA PUBLIC SERVICE COMMISSION

1	Q With respect to the choice of growth rates
2	that you employ in your DCF model, you refer to the
3	long-term growth rate, do you not?
4	A Yes.
5	Q And you define that long-term growth rate as
6	three to five years, correct?
7	A I define it to be the investor's expectation
8	of long-run future growth. And I believe that the best
9	proxy for that is the analysts' growth forecast as
10	reflected in the analysts' three to five-year growth
11	rates. That's the longest period for which analysts
12	forecast growth rates.
13	Q Would you agree with me that the relationship
14	between the growth rate employed and the results of the
15	DCF model is that the higher the growth rate, the higher
16	the indicated return that would be required by an
17	investor?
18	A Yes. And the lower the growth rate, the lower
19	would be the required return, all other things equal.
20	Q In your analysis to quantify the growth rates,
21	you relied on a long-term growth forecast of financial
22	analysts, did you not?
23	A Yes.
24	Q And that was the only source of this data that
25	you employed, correct?
	FLORIDA PUBLIC SERVICE COMMISSION

Yes, because there's ample evidence that stock А 1 prices are much more highly correlated with analysts' 2 growth rates than with other growth rates such as 3 historical growth rates or sustainable growth rates, and 4 the DCF model requires a match between the growth rates 5 6 and the stock prices. If the analysts' growth rates are what's 7 embodied in the stock prices, then it's the analysts' 8 growth rates that have to be used in the DCF model. 9 As part of your DCF exercise, you also include 10 Q a quantification of flotation costs, do you not? 11 12 Α Yes. Do I understand correctly that the manner in 13 Q which you use flotation costs you apply the percentage 14 to the entire equity base? 15 Yes, I do, as it amounts to about 25 basis 16 Α 17 points in the estimate of the cost of equity. Twenty-five basis points. And that's applied 18 Q to the --19 It's applied to the stock price in the 20 Α discounted cash flow model. 21 In your summary you refer to the development 22 0 23 of 10.8 percent indicated ROE that is derived from your DCF and risk premium analysis, correct? 24 25 Α Yes. FLORIDA PUBLIC SERVICE COMMISSION

In your testimony, you also describe your Q 1 application of the capital asset pricing model, do you 2 3 not? I do, and I describe the evidence that the 4 Α capital asset pricing model understates the cost of 5 6 equity for companies whose betas are significantly less than one. And so I do not use the results of the CAPM 7 because the betas are significantly less than one for my 8 9 proxy companies. After arriving at the 10.8 percent average of 10 0 your average DCF risk premium, you adjusted that by 90 11 basis points and you described the leverage adjustment 12 that you employed to arrive at 11.7 percent, correct? 13 14 Α I call it a financial risk adjustment, but I do describe the financial risk adjustment, yes. 15 Your financial risk adjustment is intended to 16 Q compensate for the fact that regulators use a book value 17 18 based capital structure by increasing the earnings quarterly? 19 Not entirely. It's designed to reflect the 20 А 21 fact that my cost of equity estimates reflects the risks of investors in the marketplace through the stock price. 22 And financial economists have recognized for many years 23 24 that investors in the marketplace measure risk by the variance of return on their investment. And the 25 FLORIDA PUBLIC SERVICE COMMISSION

variance on return of investment depends on the market
 values of debt and equity in the capital structure, not
 on the book values.

So we have a cost of equity that is quite a 4 5 bit less than it would be if investors were to look at book value capital structures to measure the financial 6 risk. Since they look at market values, which have 7 8 higher percentages of equity at the present time, the 9 cost of equity has been lowered somewhat by the lower financial risk in the market value capital structures of 10 their investments. 11

Now, if we apply that cost of equity to a 12 13 different capital structure, we have to recognize that that different capital structure might have a different 14 level of financial risk associated with it. And if it 15 16 does, which in this case it does because the company has recommended a book value capital structure be used for 17 rate-making purposes, then we have to adjust the cost of 18 19 equity to reflect that higher degree of financial risk. You referred to the market value and the 20 0 manner in which the market sets the price of the stock. 21 22 Would you agree that one premise of analysts is that that price is being set by informed investors? 23 One usually assumes that investors are 24 Α 25 informed, and at the same time one assumes that FLORIDA PUBLIC SERVICE COMMISSION

investors are primarily concerned with the volatility or 1 the variability in their return on investment which is 2 measured by the market value capital structure. 3 Would you also agree that the price reflects 4 0 the risks that the informed investors perceive 5 associated with the security or the stock that they're 6 7 purchasing? And included in those risks would be the 8 Α Yes. financial risk is measured by the market value capital 9 10 structure. Would you agree with me that informed 11 0 investors and the investment community, including 12 13 analysts that provide services to investors, are 14 familiar with the fact that in regulated industries the regulators such as the Florida Public Service Commission 15 16 apply a traditional rate-based rate of return type of 17 analysis to the utilities under their jurisdiction? 18 Α Sure, I would agree with you that they 19 recognize how regulation is set, as do I recognize that. But they would also recognize that the financial risk of 20 21 any group of proxy companies in the marketplace would be affected and be measured by the market value capital 22 structures of those proxy companies. 23 24 Would you agree that they understand that this 0 25 traditional rate base, rate of return form of regulation

FLORIDA PUBLIC SERVICE COMMISSION

capital structure and measure their financial risk using 1 market value capital structures. Every financial 2 textbook that I know of discusses financial risk in 3 terms of the market value capital structures. 4 Within the universe of information available 5 Q to inform investors there exists information based upon 6 market value, and there's also information based upon 7 book value; would you agree with that? 8 9 But I would not agree that those Α Yes. investors would use book value to estimate their 10 11 financial risk. They would only use market value to estimate their financial risk. 12 13 In response to some discovery requests Q 14 relating to examples in which market value and not book 15 value was applied, you referred us to the Verizon TELRIC -- that's acronym T-E-L-R-I-C -- order issued by 16 17 the FCC, did you not? 18 Α Yes, I did. And that case involved petitions by 19 0 competitive local exchange companies for arbitration of 20 21 the prices that Verizon would charge them to lease 22 components of the local network; is that correct? 23 I don't know who initiated the case, but it А 24 certainly involved the prices of unbundled network 25 elements, yes.

FLORIDA PUBLIC SERVICE COMMISSION

And that was done pursuant to the 1996 1 Q 2 Telecommunication Act? 3 Α Yes, it was. We provided you with an excerpt of that order 4 Q that I would like to have --5 MR. McGLOTHLIN: And I need a number assigned 6 7 to that, please. CHAIRMAN GRAHAM: Which one is this? 8 MR. McGLOTHLIN: The description is order of 9 10 FCC in Common Carrier Docket Numbers 218 and 251. MS. KLANCKE: 178. 11 CHAIRMAN GRAHAM: 178. 12 (Exhibit No. 178 was marked for 13 14 identification.) 15 MR. McGLOTHLIN: And counsel for Gulf, we do have a full version of the order here in the 16 17 hearing room. The FCC doesn't do anything in less 18 than three or 400 pages so we included the full 19 cost of capital section of that order for purposes 20 of the questions so we're happy to show you the order itself. 21 MR. MELSON: That's all right, so long as 22 23 Dr. Vander Weide thinks he has the portions he 24 needs. 25

FLORIDA PUBLIC SERVICE COMMISSION

BY MR. McGLOTHLIN: 1 Dr. Vander Weide, please turn to page 45 at 2 Q the bottom, which is also the last page of the excerpt I 3 4 gave you. 5 Α Yes. Paragraph 102 contains the FCC's conclusions 6 Q with respect to choice of capital structure. Would you 7 8 read into the record the highlighted sentence that 9 begins "In section 252D1"? "In Section 252D1 of the Act, Congress 10 Α Yes. specifically prohibited the use of traditional rate 11 base, rate of return on equity rate making." 12 13 Do you want me to go on? Yes, please. 14 Q "The Commission has interpreted this section 15 А to require prices based on forward-looking costs because 16 17 forward-looking costs best replicate the costs a carrier would face in the market with facilities-based 18 19 competition." 20 Q Thank you. Can I complete the paragraph? 21 А 22 I'll tell you what, let me ask my questions Q 23 and see if they cover the same ground and then on redirect your counsel will have the same opportunity. 24 25 А Okay.

FLORIDA PUBLIC SERVICE COMMISSION

You would agree, would you not -- I think 0 1 you've already agreed -- that this Commission applies 2 the traditional rate based, rate of return form of 3 regulation? 4 5 А Yes. And is that the type of regulation that FCC 6 Q was reciting here that it is prohibited from using? 7 The FCC did not use rate of return regulation; 8 Α they used regulation based on forward-looking costs. 9 10 Q And that's --But they do say that -- there is a statement 11 А that says that they're trying to do the same thing with 12 13 forward-looking economic costs and that is that "The 14 TELRIC Rules provide for the recovery of the investment 15in that efficient network through the use of economic depreciation and they provide for a return on that 16 17 investment through a risk adjusted cost of capital." Dr. Vander Weide, I believe we agreed a minute 18 Q 19 ago that you would limit your answers to my question 20 posed. 21 The question before you is simply do you agree that in this paragraph, the FCC expressed its view that 22 23 the 96 Act prohibited it from applying the same type of 24 rate of return regulation that this Commission employs? 25 А Yes. FLORIDA PUBLIC SERVICE COMMISSION

The FCC also indicated that the choice of Q 1 capital structure is geared to address a situation in 2 which Verizon is facing facilities-based competition, 3 correct? 4 Are you referring to a specific sentence? 5 Α Yes, "Because forward-looking costs best 6 Q replicate the costs the carrier would face in a market 7 with facilities-based competition, " one of the 8 highlighted sentences. 9 They didn't necessarily say that they 10 Α Yes. are facing competition at this point. They said it's 11 12 what they -- "best replicate the costs the carrier would face in a market with a facilities-based competition." 13 Would you agree that Gulf Power Company has a 14 Q monopoly on providing retail electric service in this 15 16 service area? 17 Α I do -- I would agree with that. But it's also my understanding that regulation is supposed to 18 be -- it's supposed to provide -- or be a surrogate for 19 20 competition; that is, it's supposed to provide the 21 results of a competitive market even though a 22 competitive market does not exist. Now, in this instance, the FCC applied market 23 Q value information directly, correct? 24 25 А Yes. FLORIDA PUBLIC SERVICE COMMISSION

This is not an example of a forum in which the 0 1 type of financial risk adjustment that you described was 2 made? 3 That's correct. It's evidence though No. 4 Α 5 that the FCC believes that investors do base decisions on market value capital structures and also ask if they 6 base decisions on those market value capital structures 7 they must measure the financial risk of the company 8 based on a market value capital structure. 9 10 And it's straightforward to go from there to say that if investors measure financial risk based on a 11 market value capital structure but one applies the cost 12 13 of equity associated with that market value capital structure and that level of financial risk to a book 14 15 value capital structure, one ought to make an adjustment to recognize the difference in financial risk. 16 17 Q You also referred us to a decision by the 18 Surface Transportation Board regarding railroad costs. Do you have that excerpt in front of you? 19 20 Α I do. MR. McGLOTHLIN: I'll need a number for that, 21 22 sir. 23 CHAIRMAN GRAHAM: That's 179. (Exhibit No. 179 was marked for 24 25 identification.) FLORIDA PUBLIC SERVICE COMMISSION

BY MR. McGLOTHLIN: 1 Dr. Vander Weide, I've highlighted a sentence 2 Q on page seven of the document. 3 4 Α Yes. Would you read the highlighted sentence? 5 Q "AAR calculated the 2009 market value of Yes. Α 6 common equity for each railroad by calculating weekly 7 market values for each railroad using data on shares 8 outstanding from railroad 10-Q and 10-K reports 9 multiplied by stock prices at the close of each week in 10 2009." 11 And the AAR is the industry Association of 12 Q Railroads; is that correct? 13 Yes, that's my understanding. 14 Α And would you agree with me that like the 15 Q earlier order, this is not an instance in which the 16 regulator applied a financial risk adjustment but 17 instead applied market value data directly to derive the 18 required return? 19 20 Α Yes. Do you have the Iowa Tax Authority Rules Q 21 22 before you? 23 Α Yes, I do. MR. McGLOTHLIN: I need a number, sir. 24 180, one eight zero. 25 CHAIRMAN GRAHAM:

FLORIDA PUBLIC SERVICE COMMISSION

(Exhibit No. 180 was marked for 1 identification.) 2 BY MR. McGLOTHLIN: 3 And like the others, this is a document to Q 4 which you referred for examples of the market value 5 analysis that you recommend; is that correct? 6 Yes. 7 Α If you turn to the first page, do you see a 8 Q definition of stock and debt approach about two-thirds 9 down on 77.1(7)? 10 Α Yes. 11 Would you agree with me that the rules in this 12 Q document contemplate the application of a market value 13 approach to the derivation of ROE directly without a 14 financial risk adjustment of the nature that you're 15 16 making in this case? 17 Yes. No -- since they apply it directly, no Α such market value -- no such financial risk adjustment 18 is required. They are already using market values and 19 recognizing that market values must be used to estimate 20 the cost of equity and so no adjustment is required in 21 22 this case. Now, I believe it was in response to the staff 23 0 where examples of jurisdictions that had accepted your 24 type of financial risk adjustment, you referred to an 25 FLORIDA PUBLIC SERVICE COMMISSION

1	order issued by the Missouri Public Service Commission
2	involving the Empire District; is that correct?
3	A Yes.
4	Q But you have appeared in more than one
5	proceeding on behalf of Empire District over time, have
6	you not?
7	A That's correct.
8	Q And do you have before you the document which
9	is the Missouri PSC order dated March 26th, 2008?
10	CHAIRMAN GRAHAM: We'll call that 181.
11	THE WITNESS: Yes.
12	(Exhibit No. 181 was marked for
13	identification.)
14	BY MR. McGLOTHLIN:
15	Q Please turn to page 11. And you'll see in the
16	right-hand column there that I've highlighted a portion
17	of the paragraph. Take a moment and familiarize
18	yourself with what is captioned in paragraph 12
19	beginning with your name there.
20	A Yes.
21	Q Do I understand correctly that in this
22	particular case, you developed an average cost of equity
23	of 11.3 percent and then adjusted that with a version of
24	your financial risk adjustment?
25	A Yes. That's correct.

So the average of your methodologies was Q 1 11.3 percent and you recommended a financial risk 2 adjustment of 40 basis points to arrive at 11.7, 3 correct? 4 5 А Yes. Please turn to page 12. Would you read the 6 Q 7 highlighted paragraph? That's the one that begins "In light 8 А Yes. 9 of"? 10 Q Yes. "In light of the comparable companies' average А 11 ROE at or near 10.9 percent, the national average ROE 12 and the perceived risk associated with investment in 13 14 Empire, including the downgrade of Empire's credit rating to the lowest investment grade after this case 15 was filed, the Commission concluded that 10.9 percent is 16 a reasonable and appropriate ROE for Empire." 17 Now, the average of your methodologies was 18 Q 11.3, correct? 19 Correct. 20 Α And you proposed to increase that by 40 basis 21 0 points for the financial risk adjustment? 22 23 Α Yes. Would you agree with me that in this instance, 24 Q the same Missouri PSC did not accept your financial risk 25 FLORIDA PUBLIC SERVICE COMMISSION

adjustment? 1 2 Α Yes. That's correct. You also appeared on behalf of -- you also 3 Q appeared before the Missouri PSC on behalf of Union 4 5 Electric doing business as Ameren; is that correct? 6 Α Yes. 7 Q Do you have that order in front of you? This 8 is a Missouri PSC order dated May 22nd, 2007. 9 Yes, I do. А 10 CHAIRMAN GRAHAM: We'll number that 182. (Exhibit No. 182 was marked for 11 12 identification.) 13 BY MR. McGLOTHLIN: Please turn to page 34 -- I'm sorry -- 33. 14 Q 15 The highlighted language in the middle of page 33 indicates that you recommended a return on equity of 16 17 12.2 percent; is that correct? 18 А Yes. And did that reflect the application of the 19 0 20 financial risk adjustment? 21 Yes, it did. А 22 Would you please turn to page 34 and read the Q 23 paragraph that begins -- well, this paragraph number 23 24 beginning "In large part." 25 "In large part, the overly high return on Α FLORIDA PUBLIC SERVICE COMMISSION

equity recommendations put forward by AmerenUE's
witnesses result from their inclusion of a large
financial risk add-on premium based on the allegedly
greater financial risk resulting from the market value
of common authorized equity and AmerenUE's capital
structure.

7 "The witnesses used this premium adjustment to 8 increase some exchange return on equity recommendation 9 by 100 basis points and Vander Weide by 70 basis points. 10 But despite his advocacy of an adjustment to account for 11 AmerenUE greater risk, Vander Weide acknowledged at the 12 hearing that the AmerenUE's risk is about average for 13 the electric utility industry."

Q And on page 35, the second paragraph contains
the Missouri PSC's disposition of your recommendation.
Would you read that?

"In sum, the financial risk upward adjustment 17 А proposed by AmerenUE's witnesses appears to be a 18 transparent effort to inflate the company's proposed 19 20 return on equity to obtain a better bargaining position in the hope the Commission would simply split the 21 difference between the extreme positions. 22 "Such efforts call into question the 23 24 credibility of these witnesses. Indeed, Vander Weide

25 came close to acknowledging that his proposed return on FLORIDA PUBLIC SERVICE COMMISSION

equity was extreme when at the hearing he indicated an 1 11 percent return on equity in line with the amounts 2 that the Commission has allowed Kansas City Power & 3 Light and the Empire District Electric Company in recent 4 cases would be a benchmark that the financial community 5 would look to." 6 And then on page 36, the Missouri PSC 7 Q reflected the ROE that it felt was appropriate in that 8 case. Did they find a 10.2 percent would be appropriate 9 in that case? 10 Yes, they did. 11 А We provided another Missouri PSC order dated 12 Q July 30th of 2008. Do you have that before you? 13 14 А Yes. MR. McGLOTHLIN: I need a number, please. 15 CHAIRMAN GRAHAM: This will be 183. 16 (Exhibit No. 183 was marked for 17 identification.) 18 BY MR. McGLOTHLIN: 19 And in this case, you appeared again as the 20 0 cost of capital witness for the Empire District Electric 21 22 Company, correct? 23 Α Yes. Please turn to page 16. Reading the 24 Q highlighted language, Dr. Vander Weide, do I understand 25 FLORIDA PUBLIC SERVICE COMMISSION

1	correctly that you performed three separate analyses
2	with different methodologies and then averaged them to
3	arrive at 11.6 percent?
4	A Yes.
5	Q And do I also understand it correctly that in
6	this appearance for Empire District, you did not propose
7	a financial risk adjustment before the Florida excuse
8	me the Missouri PSC?
9	A Yes. That's because it had been rejected in
10	that it had been accepted in a 2007 case and that's
11	why I presented it as support. And it also then was
12	rejected in the follow-on case and so I decided not to
13	present it in that case because the Commission had made
14	a strong statement about not accepting it.
15	Q And because the Missouri PSC had rejected it
16	in prior cases, you performed your three separate
17	analyses, arrived at an average of 11.6 percent but did
18	not propose to increase it to reflect the difference in
19	financial risk?
20	A Yeah. Actually, as I now think about that
21	answer, I would revise it slightly. The my recall
22	is, as I think about it, that and I don't have the
23	testimony in front of me to know for sure but my
24	recall is that the company requested that I I
25	indicated in the testimony that it would be appropriate FLORIDA PUBLIC SERVICE COMMISSION

to use a financial risk adjustment.

1

But in the final recommendation, the company, in order to keep the issues at a minimum, asked me to not apply a financial risk adjustment. That's my recall as I'm sitting here today.

Q So that the record is clear, do I understand
correctly that in this performance -- excuse me -- in
this appearance for Empire District, you did not propose
to apply the financial leverage -- financial risk
adjustment that you had advocated in earlier
appearances?

## A No. And just to be clear, the reason that I did not is that I discussed the appropriateness of the financial risk adjustment in the testimony and I indicate in the testimony that the company asked me to keep -- because there were so many other issues in the case -- to keep the number of issues at a minimum and to not make the adjustment in that proceeding.

19 Q So you recommended the 11.3 without 20 adjustment, correct? 21 Α Yes. 22 MR. McGLOTHLIN: If I may have a couple of 23 minutes, I'll see if I have anything else to ask. CHAIRMAN GRAHAM: Sure. 24 25 MR. McGLOTHLIN: That's all. FLORIDA PUBLIC SERVICE COMMISSION

CHAIRMAN GRAHAM: Mr. Moyle. 1 Thank you, Mr. Chairman. 2 MR. MOYLE: CROSS EXAMINATION 3 BY MR. MOYLE: 4 Hello, Doctor, how are you? 5 Q Fine, thank you. 6 Α I represent the Florida I'm Jon Moyle. 7 Q Good. Industrial Power Users Group. I think we met previously 8 9 when you testified a couple of years ago down there. 10 Α I believe we have, yes. Okay. I'm not going to be as long as Q 11 Mr. McGlothlin, but I want to ask you some questions 12 about a few points. 13 Counsel for Gulf in his opening statement --14 you were here for the opening statements, correct? 15 16 А Yes. I think he had a little fun with some of the 17 Q intervenors and suggested they were bringing in experts 18 19 from out of state. You're not a Floridian, are you? No, I'm not. I don't recall that particular 20 Α statement and I don't know whether he was having fun or 21 22 not. 23 Q All right. But his statement, I believe, is self-evident. 24 Α And I thought I would have a 25 All right. Q FLORIDA PUBLIC SERVICE COMMISSION

little fun. You're a Blue Devil from Duke; is that 1 2 right? 3 Α Right. Okay. And you're advocating that there be an Q 4 5 ROE of 11.7, correct? 6 Α Yes, I am. 7 And that's after this risk premium adjustment 0 that Mr. McGlothlin was just asking you about of 90 8 9 basis points; is that right? That's right. 10 А So it's almost a full percentage point that 11 0 you're asking this Commission to approve to increase 12 13 based on the capital structure of the company; is that 14 right? It's 90 basis points. 15 Α 16 Q In Exhibit No. 181, this case you testified in Missouri, you only sought 40 basis points; is that 17 right? 18 19 Α Yes. 20 0 And the Missouri Commission did not accept your recommendation to make a financial risk adjustment, 21 22 correct? In that case they did not. They had 23 Α recommended it in a prior case. 24 And then you had just indicated before 25 Q Okay. FLORIDA PUBLIC SERVICE COMMISSION

that in another case you didn't make the recommendation 1 because the company asked you not to; is that right? 2 They asked me to minimize the number of issues 3 Α in the case because there were other very important 4 5 issues they wanted to focus on. Q Okay. How many issues were in that case? 6 I didn't count them. 7 А 8 Can you give us a ballpark? Q 9 А No. Do you know how many issues are in this case? 10 Q No. 11 Α Okay. There's a prehearing statement, I'll 12 Q 13 represent to you that at least going in I think it was 14 in excess of 100. You would agree that's a lot of issues, would you not, if my recollection is correct? 15 16 MR. MELSON: Objection, relevance. 17 CHAIRMAN GRAHAM: Mr. Moyle. MR. MOYLE: Well, I think it is relevant just 18 19 to get to his point about -- and there were a lot 20 of issues in Missouri and his financial risk wasn't 21 sought. I'm trying to get his understanding as to is this a similar case or a lot of issues and 22 23 whether he would consider not asking for the financial risk adjustment in this case. 24 25 CHAIRMAN GRAHAM: I thought I remember him FLORIDA PUBLIC SERVICE COMMISSION

saying that the company thought it was a lot of 1 2 issues. I didn't hear him say he thought it was a 3 lot of issues. 4 MR. MOYLE: That may be. 5 CHAIRMAN GRAHAM: What was your testimony, sir? Was it the company thought it was a lot of --6 7 THE WITNESS: You had it exactly right, the 8 company thought there were a lot of issues. And I 9 stated in the testimony that I believe that the financial risk adjustment was correct in that 10 11 testimony. BY MR. MOYLE: 12 13 Okay. With respect to each hundred basis Q points or one percentage point, 100 basis point equals 14 one percentage point; isn't that right? 15 Α 16 Yes. So how much with respect to the amount 17 0 Okay. 18 of money that Gulf is seeking does each percentage point 19 represent? 20 Α I don't know. 21 So you don't know whether it's 10 million or 0 22 30 million? You don't know the value of each hundred? 23 А I was only asked to provide an estimate No. 24 of the cost of equity. 25 And you're aware that OPC has an Q Okay.

FLORIDA PUBLIC SERVICE COMMISSION

1	expert, Dr. Woolridge, who is also providing his opinion
2	on return on equity, correct?
3	A Yes.
4	Q Okay. And you don't question any of
5	Dr. Woolridge's qualifications, you would agree he's an
6	expert in economics and well versed to testify about
7	return on equity?
8	MR. MELSON: Objection, relevance. This
9	witness's opinion about another witness's expertise
10	is not relevant.
11	CHAIRMAN GRAHAM: I'll allow it.
12	THE WITNESS: I obviously question his
13	expertise because I disagree with it. I agree that
14	he has been qualified as an expert in this case,
15	but I disagree with his expertise on certain
16	subjects.
17	BY MR. MOYLE:
18	Q And I guess the finer point that I'm trying to
19	make is that lawyers will sometimes disagree on a legal
20	point, but if they're members of the Bar they have some
21	expertise on the law.
22	That's a similar situation with you and
23	Dr. Woolridge, you don't question whether he's qualified
24	to render an opinion, you just disagree with his
25	opinion; is that right? FLORIDA PUBLIC SERVICE COMMISSION

1	A Yes.
2	Q And as a general proposition in trying to
3	determine the appropriate return on equity, you have put
4	forward a lot of theories: DCF and CAPM and risk
5	premium. These are theoretical exercises; isn't that
6	right?
7	A I wouldn't characterize them as theoretical at
8	all. They are used all the time.
9	Q Okay. And with respect to the equity that
10	is well, let me ask you this: Do you know, does the
11	Southern Company do you know as a matter of fact that
12	the Southern Company does these calculations when
13	deciding whether to make an equity investment?
14	A I haven't examined what the Southern Company
15	does. I know that they agree that this is a reasonable
16	method of estimating the cost of equity; otherwise, they
17	wouldn't have hired me.
18	Q No, I understand. I'm just asking you
19	factually as we sit here today, do you know if the
20	Southern Company if their senior management, before
21	they decide to make an equity investment, whether they
22	do a CAPM model or any of the other
23	A I have no idea what they use. I haven't
24	explored it.
25	Q And the reason I'm asking the question and the

FLORIDA PUBLIC SERVICE COMMISSION

1	reason I think it's relevant is because isn't it true
2	that all of the equity for Gulf comes from the Southern
3	Company?
4	A Yes.
5	Q Okay. So I, as an investor, if I wanted to
6	invest in Gulf and I say, you know what, if I can get
7	nine and a half or ten, I mean, if I wanted to invest
8	that, I couldn't do it because the equity is limited to
9	the Southern Company's investment, correct?
10	A That is correct. The Southern Company can
11	invest in Gulf and they are the relevant equity investor
12	for the purpose of determining what it would take to
13	continue to invest in Gulf.
14	Q Okay. And you've been in the room throughout
15	the day, correct?
16	A Yes.
17	Q Okay. And you would agree with me that the
18	Southern Company made a decision in 2010 that they could
19	invest equity and receive a return of 9.5, correct?
20	A I don't know what situation you're referring
21	to.
22	Q The chief financial officer who testified, he
23	was asked a question about what was the return on equity
24	in 2010, and I think he answered 9.5. Do you remember
25	that?

I believe he was referring to an actual rate 1 Ά 2 of return as opposed to a required rate of return. And the same question with respect to 2011? 3 0 4 Α Yes. As I heard that, he was referring to an 5 accounting rate of return that was realized as opposed 6 to a forward-looking required rate of return that one 7 would use, say, for capital budgeting purposes. 8 Nobody from the Southern Company has told you 0 that they're not going to invest in Gulf Power unless 9 they get a return on equity of greater than 10 percent, 10 have they? 11 12 Α I haven't discussed it with Gulf Power. Did you say Southern Company? Southern Company, I haven't 13 discussed it with Southern Company. 14 Right. 15 Q 16 А No. Southern Company is the equity investor in 17 0 Gulf? 18 19 А Yes. 20 Q Okay. So the answer to my question would be no, because you haven't discussed it, no one's told you 21 22 that they would not invest in the Gulf Company if the return on equity was not greater than 10 percent? 23 No, I have not discussed it with them. I 24 А 25 forget which way the question was phrased, whether a yes FLORIDA PUBLIC SERVICE COMMISSION

or no is appropriate, but the meaning is clear that I 1 2 haven't discussed it with them. Okay. I want to spend a little time about 3 Q the -- talking more about the risk adjustment that you 4 5 did. And I read your testimony, and I assume that that was done as a way to in effect measure and value risk, 6 7 correct? 8 It began as a way to measure risk. It also Α 9 had the purpose of determining the appropriate return that when applied to a book value capital structure 10 would give investors an opportunity to earn their 11 12 required return in the marketplace. Okay. My thinking in reading your testimony 13 0 was if there are adjustments that need to be made 14 because of different risk profiles that in your approach 15 16 you could make adjustments one way or the other with 17 respect to different risk elements; is that fair as a 18 general proposition? I mean, because you did it for the financial 19 20 equity thing, I would assume that if there were other 21 risks or other things that made the company less risky that you would likewise consider making an adjustment? 22 That is correct. However, I felt that from an 23 А equity perspective, this group of electric -- the 24 25 average electric utility in my proxy group had a FLORIDA PUBLIC SERVICE COMMISSION

comparable business risk to Gulf Power but had a 1 2 different financial risk than was embedded in my cost of 3 equity estimates. So I think you've agreed that adjustments are 4 Q 5 appropriate based on the level of risk, correct? Α If they're significant. 6 7 Okay. Are you aware as to the type of cost Q 8 recovery clauses that the Florida Commission has in 9 place either through rule or through legislative direction? 10 11 Α I'm generally aware as from my reading of the 12 company's 10-K that there are financial recovery mechanisms. And I also am aware that most electric 13 14 utilities have cost recovery mechanisms that are very similar in nature to those available here. 15 16 Q Do you know what percentage of Gulf's annual 17 income flows through the clauses as compared to what 18 flows through base rates? 19 Α I've heard it mentioned today that it might be 20 up to 60 percent. But that would be typical for most 21 electric utilities, again, because it's very common to have a fuel cost adjustment clause. And fuel costs 22 23 represent a large percentage of an electric utility's operating expenses. 24 25 It's less common to have an environmental cost Q

FLORIDA PUBLIC SERVICE COMMISSION

1	recovery clause, is it not?
2	A No. In recent years because the environmental
3	costs are generally required investments legislated by
4	national policy and sometimes state policy, it's quite
5	common to have clauses that guarantee the recovery of
6	environment costs as long as they are prudently incurred
7	and prudently made.
8	Q Right. And investors like it when the money
9	flows through clauses as compared to base rates, that
10	gives them less risk, correct?
11	A They do but the relevant thing for the cost of
12	capital is how the risk of Gulf Power relates to the
13	risk of my proxy companies.
14	Q Right. And with respect to your proxy
15	A I wasn't quite finished with my answer yet.
16	Q I'm sorry.
17	A And if they all have similar types of recovery
18	clauses, then the cost of equity results from my proxy
19	companies are reasonable to apply to Gulf Power.
20	Q So I'm assuming based on that answer that you
21	then did a detailed analysis and looked at the recovery
22	clauses that Gulf has and compared it to all of the
23	recovery clauses that your proxy group has; is that
24	correct?
25	A No, it's not correct. That I did a detailed FLORIDA PUBLIC SERVICE COMMISSION
	LTOKIDY LODIIC SEVATCE CONTIDUTON

-	analysis, if by that you mean I identified all of the
1	
2	cost recovery clauses for all of the companies in my
3	proxy group, that would have been very cost prohibitive.
4	However, I am aware as a person who testifies
5	frequently for electric utilities and who reads
6	extensively about electric utilities, that the major
7	expenses of other electric utilities are recovered in a
8	very similar manner.
9	Q Did you know that Gulf recovered 60 percent of
10	its when did you first find out that Gulf recovered
11	60 percent of its money through clauses? Was that today
12	in the hearing?
13	A Well, that precise number was today in the
14	hearing. But as I've mentioned to you a minute ago,
15	fuel cost adjustment clauses are very, very common
16	throughout the entire electric utility industry and fuel
17	costs are a major percentage of the costs, so other
18	electric utilities would have similar percentages.
19	Q Okay. And I'm going to move on in a second.
20	But are you aware of any other besides the fuel and the
21	environmental cost recovery clause that Florida has?
22	A I've read them in the 10-K. I couldn't
23	enumerate them as I sit here.
24	Q Okay.
25	A But I have read about all of the clauses that
	FLORIDA PUBLIC SERVICE COMMISSION

are available.

1

2	Q All right. And you did not make an adjustment
3	downward with respect to your recommended return on
4	equity due to the fact that Florida has a number of
5	clauses, correct?

A No, I didn't believe it was appropriate, because Value Line has rated Florida regulation as being average for regulatory environments throughout the country. And since my proxy group has about an average regulatory business ranking, I thought that was appropriate for Gulf as well.

12 Q Do you agree with the proposition that 13 companies which have nuclear operations, that that has a 14 higher risk profile and therefore that there should be 15 an adjustment upward with respect to return on equity?

16 A I don't think I would be willing to make a 17 general statement about that. You know, I would have to 18 consider all of the circumstances surrounding that.

19 Q You would agree that a nuclear unit presents
20 more risk as a general proposition, correct?

A Nuclear has some risk factors and it has some other factors. It generally provides lower costs for baseload energy. It's more -- it has -- it emits a lot fewer greenhouse gases and so the company would not have to make as big of investments in environmental capital FLORIDA PUBLIC SERVICE COMMISSION

expenditures. 1 The risk is that it has generally a longer 2 period of recovery, so there are -- one would have to 3 look at all of the different factors at the same time. 4 Are you familiar with the -- any issues or 5 Q costs associated with the Crystal River 3 nuclear 6 7 outage? MR. MELSON: Objection. This is getting 8 pretty far afield. 9 I agree with the objection. CHAIRMAN GRAHAM: 10 Unless you can tell me -- what do you plan on 11 12 getting to? MR. MOYLE: The reason I think it's an 13 appropriate question is that I'm asking him 14 15 questions related to any adjustments he made relative to risk and it's all about risk as to the 16 17 return on equity. You know, I think some experts have said 18 nuclear presents greater risk. He's saying he 19 doesn't necessarily agree. And I think in terms of 20 trying to establish that, no, nuclear does present 21 22 greater risk to the extent he had any information about Crystal River 3, it would help me establish 23 that. If he doesn't have any information, you 24 25 know, he can't establish them.

FLORIDA PUBLIC SERVICE COMMISSION

CHAIRMAN GRAHAM: Sir, do you have any 1 information on Crystal River 3? 2 THE WITNESS: No. 3 BY MR. MOYLE: 4 Okay. With respect, again, to elements of 5 0 risk, doesn't it help to have a utility that is 6 backstopped or supported by a large holding company as 7 compared to having a utility that's not supported by a 8 large holding company or backstopped by a large holding 9 10 company? I can't say that it helps or it hurts. Ι Α 11 think one would have to examine, again, the individual 12 set of circumstances. As a general proposition, I don't 13 14 think that it does. 15 Do you think having a statutory rate case Q clock is a favorable thing for investor-owned utilities? 16 I misunderstood one word. A rate case clock? 17 А 18 0 A statutory provision that says once a rate case is filed you have to have it heard and decided 19 within a certain amount of time. Is that a beneficial 20 thing that reduces risk to an investor-owned utility in 21 your opinion? 22 Sure, it's a beneficial thing, but it doesn't 23 А 24 reduce the risk relative to my proxy companies, because most states have such schedules in place. 25 FLORIDA PUBLIC SERVICE COMMISSION

Did you research that issue to find out Q 1 whether the ones in your proxy group indeed had a 2 regulatory time clock or a statutory time clock? 3 It didn't require a lot of research. I've 4 Α been in several hundred rate cases over the last 30 5 years and I'm very familiar with the kinds of regulation 6 environments that are faced by electric utilities. 7 8 Okay. And you testified in the Progress Q Energy case, you're aware that the Commission set a 10.5 9 return on equity in that case; is that right? 10 А Yes. 11 And that was considerably below the 12 Okav. 0 number that you had recommended, correct? 13 And as was discussed earlier, the case 14 Α Yes. was settled and there were some other things that were 15 16 beneficial to the company in addition to the range of rates of return that were allowed. 17 All right. And as we sit here today, you have 18 Q no information or evidence that Progress Energy has not 19 20 been able to provide reliable service since the end of the rate case, correct? 21 No, I don't have any information, but I don't 22 А think it would be relevant. I don't think that the 23 company would intentionally allow in the short-run its 24 25 service to deteriorate solely because it didn't get the FLORIDA PUBLIC SERVICE COMMISSION

rate of return that it requested.

1

The commitment to provide quality services is a long-run commitment and it's generally considered that there's a compact between the regulator and the company, that the company will provide safe and reliable service and the regulator in return in compliance with the Hope and Bluefield Standards will provide an opportunity to earn a fair rate of return on the investment.

9 MR. MOYLE: Mr. Chairman, in being respectful 10 of our witness, a lot of these questions are simple 11 yes and no questions that don't respectfully 12 require a elaboration about the regulatory compact 13 and the Supreme Court holdings, so I think it would 14 move it along if I could get a yes or a no. I 15 would appreciate some help in that regard.

16 CHAIRMAN GRAHAM: Dr. Vander Weide, normally 17 the way I handle things up here is -- or the way 18 it's written up in preorders, you're allowed to 19 answer the question yes or no and give a brief 20 explanation.

21 Normally I'll let the witness go on until the 22 person asking the question calls for me to rein it 23 in a little, so what I'm doing right now is reining 24 it in a little. I need you to make your responses 25 as brief as possible.

FLORIDA PUBLIC SERVICE COMMISSION

THE WITNESS: Certainly. 1 2 BY MR. MOYLE: Since the decision in the Progress Energy rate 3 Q case in which a 10.5 return on equity was awarded, do 4 you have any information to suggesting that Progress 5 Energy has not been able to access either debt or equity 6 7 capital? And I don't believe that it would -- that 8 Α No. such information would be relevant to determining the 9 cost of capital in this proceeding. 10 Q And such information -- with respect to 11 determining return on equity, you try to take a snapshot 12 of market conditions as they exist at a particular point 13 in time, correct? 14 15 Α Yes. 16 0 Okay. So there was a question earlier about Gulf having previously had a 12 or 12 and a half percent 17 return on equity. You would agree that was set ten 18 years ago at a time that had completely different market 19 20 conditions, correct? I haven't examined the conditions involved in 21 А 22 that case. Okay. But with respect to what the objective 23 Q is, a historical return on equity does not have much 24 25 relevancy with respect to trying to set a return on FLORIDA PUBLIC SERVICE COMMISSION

equity on a going-forward basis, correct? 1 All I did is I would look at current market 2 Α conditions. 3 Okay. So am I correct then in suggesting that 4 Q a historical return on equity is not particularly 5 helpful or relevant in determining return on equity 6 because it's designed to try to get a market picture at 7 the time the return on equity is being decided? 8 Well, I didn't consider it relevant or 9 Α 10 important. And you're an expert in this field? Q 11 12 Α Yes. 13 Q Do you try to keep up with Commission decisions around the country with respect to return on 14 15 equity? Α Generally, yes. 16 Are you aware that the Oklahoma Gas & Electric 17 0 on 6/17/11 issued an opinion in which they awarded a 18 9.95 return on equity? 19 I don't recall the Oklahoma decision. 20 Α I am aware that the average allowed return for integrated 21 electric utilities in 2011 has been approximately 10 and 22 23 a half percent. With respect to -- I had three or four of 24 Q these, I just want to test your knowledge about specific 25 FLORIDA PUBLIC SERVICE COMMISSION

cases. 1 Are you aware or have any information that the 2 Pittsburgh Gas & Electric Company, which is in 3 Massachusetts, that their regulator on 8/1/11 authorized 4 a return on equity of 9.2 percent? 5 MR. MELSON: Objection, relevance. The 6 witness has testified that what is awarded in other 7 jurisdictions is not relevant to this proceeding, 8 9 that you look at a snapshot in time. CHAIRMAN GRAHAM: He said that he didn't 10 believe it was relevant but he said that he stays 11 on top of what goes on nationwide, so I'll allow 12 him to answer the question. 13 THE WITNESS: When I look at information on 14 authorized returns, I don't look at individual 15 returns, so I'm not aware of that, the answer would 16 I look only at the average allowed return and 17 be. I look particularly at integrated electric 18 utilities. And as I have suggested, that average 19 for 2011 has been approximately 10 and a half 20 percent for integrated electric utilities. 21 22 BY MR. MOYLE: Well, 10 and a half percent is a lot different 23 Q from 11.7, isn't it? 24 Yes, it is different. It doesn't say that I 25 А FLORIDA PUBLIC SERVICE COMMISSION

agree that that's my estimate of the cost of equity. 1 Okay. 2 0 I'm just providing information in response to А 3 your question on what the allowed rates of return are. 4 Sure. And I'm just testing your knowledge as 5 Q to utility-specific return on equities. 6 And I don't have any knowledge of it to 7 Α testify to about utility-specific returns. 8 9 Okay. Q Only the average for the country. 10 А All right. But you would agree that utility Q 11 specific are used to calculate the average, correct? 12 Yes. But because each case is different and А 13 there are so many factors that go into each case, it's 14 very difficult to compare one case to one other case. 15 Q Okay. 16 It's better to look -- to average out those 17 Α unusual characteristics of a particular case. It's 18 better to look at an average if one looks at allowed 19 20 returns at all. So with respect to -- you wouldn't have any 21 Q information about Niagara Mohawk, which is out of New 22 York, on 1/20/11 authorized a return on equity of 9.3 or 23 Portland General on December 17th, 2010 authorizing a 24 25 10.0 return on equity, correct, because those are

FLORIDA PUBLIC SERVICE COMMISSION

## utility specific? 1 I don't have any utility-specific information, 2 Α but I do know, however, that if there is an 3 industry-wide average number that is reported, it's not 4 indicative to just taking numbers that are below the 5 average and pretend like they are relevant for this 6 proceeding. One has to look at the entire range of 7 8 numbers. I would agree. And the number that you're 9 Q asking this Commission to adopt is -- would put Florida 10 at the top of the heap in terms of return on equity, it 11 would be one of the highest return on equities in the 12 13 country; isn't that right? It would. And as I've already indicated, the Α 14 allowed returns aren't my estimate of the cost of 15 equity, but they are quite a bit higher than those of 16 the other cost-of-equity witnesses in this proceeding 17 and indeed are about halfway between us. But, again, I 18 would still believe that my estimate is the correct 19 20 estimate of the cost of equity. MR. MOYLE: Just one second, I think I'm done. 21 CHAIRMAN GRAHAM: Sure. 22 23 MR. MOYLE: Thank you for your time, I appreciate it. 24 25 CHAIRMAN GRAHAM: As we are about at the

FLORIDA PUBLIC SERVICE COMMISSION

1	two-hour mark, probably just a little past that, we
2	are going to have to let our court reporter take a
3	break, so we'll take about a well, we'll take a
4	ten-minute break.
5	(Whereupon, the hearing was recessed at 4:30
6	p.m.)
7	(Whereupon, the transcript continues in
8	sequence to volume 3.)
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	FLORIDA PUBLIC SERVICE COMMISSION

1	CERTIFICATE OF REPORTER
2	
3	STATE OF FLORIDA )
4	COUNTY OF LEON )
5	I, MICHELLE SUBIA, Registered Professional
6	Reporter, certify that the foregoing proceedings were
7	taken before me at the time and place therein
8	designated; that my shorthand notes were thereafter
9	translated under my supervision; and the foregoing
10	pages, numbered 253 through 401, are a true and correct
11	record of the aforesaid proceedings.
12	
13	I further certify that I am not a relative,
14	employee, attorney or counsel of any of the parties, nor
15	am I a relative or employee of any of the parties'
16	attorney or counsel connected with the action, nor am I
17	financially interested in the action.
18	DATED this 14th day of December, 2011.
19	
20	Michel Sulie
21	MICHELLE SUBIA
22	NOTARY PUBLIC
23	COMMISSION #DD987077 EXPIRES JUNE 7, 2014
24	
25	
	FLORIDA PUBLIC SERVICE COMMISSION