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1	FLORIDA	BEFORE THE PUBLIC SERVICE COMMISSION
2 3	In the Matter of:	DOCKET NO. 20230023-GU
4	Petition for rate i	
5	Gas Systems, Inc.	/ Docket No. 20220219-GU
6 7	Petition for approv study by Peoples Ga	val of 2022 depreciation as Systems, Inc.
8		DOCKET NO. 20220212-GU
9 10 11	and subaccount for	val of depreciation rate renewable natural gas to others by Peoples /
12		JME 3 – PAGES 285 – 530
13		HEARING
14 15 16	COMMISSIONERS PARTICIPATING:	CHAIRMAN ANDREW GILES FAY COMMISSIONER ART GRAHAM COMMISSIONER GARY F. CLARK COMMISSIONER MIKE LA ROSA COMMISSIONER GABRIELLA PASSIDOMO
17	DATE:	Wednesday, September 13, 2023
18 19	TIME:	Commenced: 9:00 a.m. Concluded: 6:35 p.m.
20	PLACE:	Betty Easley Conference Center
21		Room 148 4075 Esplanade Way Tallahassee, Florida
22 23	REPORTED BY:	DEBRA R. KRICK Court Reporter
24	APPEARANCES:	(As heretofore noted.)
25		PREMIER REPORTING

1	I N D E X	
2	WITNESS:	PAGE
3	DYLAN D'ASCENDIS	
4	Examination by Mr. Means	290 293
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6	Examination by Ms. Christensen Examination by Mr. Moyle	477
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8		Wastewater Utilities		
9	183	Garrett 20230023-GU Testimony & Exhibits (Excerpt) Page 55, Figure 12: Equity Risk	466	526
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12	20	As identified in the CEL		525
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1	PROCEEDINGS	
2	(Transcript follows in sequence from Volume	5
3	2.)	
4	CHAIRMAN FAY: All right. Commissioners, w	ve
5	will start back for this afternoon.	
6	We will stay on a similar schedule of	
7	basically around two-hour blocks. We will make	
8	sure we give our court reporter a break, and the	en
9	we will sort of play it by ear as to how far we	go
10	tonight going forward.	
11	We are going to start with witness D'Ascend	lis
12	this afternoon. Mr. Moyle, did we take care of	
13	your issue? Do you still want to address that -	
14	MR. MOYLE: No, I	
15	CHAIRMAN FAY: I just want to make sure	I
16	give you the opportunity.	
17	MR. MOYLE: I appreciate the opportunity to)
18	have a couple of conversations, and I am clear,	and
19	I have those two exhibits that I had marked and	
20	would like to move those in, if we could.	
21	CHAIRMAN FAY: Okay. So let's see, so i	₋78
22	and 179, without objection show that	
23	MR. MEANS: No objection.	
24	CHAIRMAN FAY: Without objection, okay, sho	W
25	those moved into the record.	

1 (Whereupon, Exhibit Nos. 178-179 were received 2 into evidence.) 3 CHAIRMAN FAY: All right. Does that take care 4 of it, Mr. Moyle? 5 MR. MOYLE: It does. Thank you for the 6 courtesy. 7 CHAIRMAN FAY: Sure. 8 All right. Next we will move into witness 9 testimony. I think we have witness D'Ascendis on 10 -- there he is, all right, available. We will make 11 sure we get you sworn in Mr. D'Ascendis. 12 Did we lose you? 13 MR. MEANS: I believe he said I do, but we 14 couldn't hear him. 15 Maybe a little bit louder. CHAIRMAN FAY: We 16 can't hear you. Hold on. Let's make sure we got 17 -- I don't know if it's on -- your mute is not on, 18 though, so let's see if it's on our end or your 19 ends real quick, just to make sure. 20 He has got his background blurred. MR. MEANS: 21 CHAIRMAN FAY: You want to give it another go, 22 Mr. D'Ascendis, see if we can hear you? 23 MR. MEANS: We can't hear him. 24 CHAIRMAN FAY: Not yet. Okay. 25 Let's check with Michael. I don't think it's

1 -- it's unlikely on our end with the speakers. Let 2 me see. We will check with Michael real quick. He 3 was signed in earlier. 4 (Discussion off the record.) 5 MR. MEANS: We probably should administer the oath again just --6 7 CHAIRMAN FAY: Sure. No problem. Yep. 8 MR. MEANS: Belt and suspenders. 9 CHAIRMAN FAY: Yep. 10 Whereupon, 11 DYLAN D'ASCENDIS 12 was called as a witness, having been first duly sworn to 13 speak the truth, the whole truth, and nothing but the 14 truth, was examined and testified as follows: 15 THE WITNESS: I do. 16 CHAIRMAN FAY: Okav. Mr. Means. 17 MR. MEANS: Thank you, Mr. Chairman. 18 EXAMINATION 19 BY MR. MEANS: 20 Mr. D'Ascendis, can you please state your full 0 21 name for the record? 22 It's Dylan, D-Y-L-A-N, William, Α Yes. 23 W-I-L-L-I-A-M, D'Ascendis, D, apostrophe, capital 24 A-S-C-E-N-D-I-S. 25 And were you just sworn? 0

1	A I was.
2	Q Who is your current employer, and what is your
3	business address?
4	A I am a partner at ScottMadden, Inc., and my
5	business address is 3000 Atrium Way, Suite 200, Mount
6	Laurel, New Jersey, 08054.
7	Q And did you prepare and cause to be filed in
8	this docket on April 4th, 2023, prepared direct
9	testimony consisting of 78 pages?
10	A I did.
11	Q And did you prepare and cause to be filed in
12	this docket on July 20th, 2023, prepared rebuttal
13	testimony consisting of 55 pages?
14	A I did.
15	Q Do you have any additions or corrections to
16	your prepared direct or rebuttal testimony?
17	A I think there was a filed errata to my
18	rebuttal as a result of the deposition with a schedule,
19	or a document No. 9.
20	Q Other than that change, if I were to ask you
21	the questions contained in your prepared direct and
22	rebuttal today would your answers be the same?
23	A They would.
24	CHAIRMAN FAY: Okay. Maybe, Mr. D'Ascendis,
25	if we can have you just project a little bit more

(850) 894-0828

1	just so our court reporter can pick up your audio.
2	THE WITNESS: Sure, I haven't had a problem
3	with it before, but I guess it's kind of can you
4	hear me now?
5	CHAIRMAN FAY: Yeah, we can hear you just
6	slightly muddled, so if you speak up a little bit,
7	it's just helpful to our court reporter to make
8	sure we can get everything on the record.
9	THE WITNESS: That works. I am sorry.
10	CHAIRMAN FAY: Okay. Appreciate that.
11	MR. MEANS: Peoples requests that the prepared
12	direct and rebuttal testimony of Mr. D'Ascendis be
13	inserted into the record as though read.
14	CHAIRMAN FAY: Okay. Show the direct and
15	rebuttal inserted.
16	(Whereupon, prefiled direct testimony of Dylan
17	D'Ascendis was inserted.)
18	
19	
20	
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25	

BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 20230023-GU

IN RE: PETITION FOR RATE INCREASE BY PEOPLES GAS SYSTEM, INC.

PREPARED DIRECT TESTIMONY AND EXHIBIT

OF

DYLAN W. D'ASCENDIS

ON BEHALF OF PEOPLES GAS SYSTEM, INC.

²⁹⁴ D9-532

DOCKET NO. 20230023-GU WITNESS: D'ASCENDIS

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PREPARED DIRECT TESTIMONY

OF

DYLAN W. D'ASCENDIS

ON BEHALF OF PEOPLES GAS SYSTEM, INC.

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DOCKET NO. 20230023-GU WITNESS: D'ASCENDIS

	I	WITNESS: D'ASCENDIS
1		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
2		PREPARED DIRECT TESTIMONY
3		OF
4		DYLAN W. D'ASCENDIS
5		ON BEHALF OF PEOPLES GAS SYSTEM, INC.
6		
7	I.	INTRODUCTION
8	Q.	Please state your name, address, occupation and employer.
9		
10	A.	My name is Dylan W. D'Ascendis. My business address is 3000
11		Atrium Way, Suite 200, Mount Laurel, New Jersey 08054. I am
12		employed by ScottMadden, Inc. as a Partner.
13		
14	Q.	Please provide a brief outline of your educational background
15		and relevant business experience.
16		
17	A.	I am a graduate of the University of Pennsylvania, where I
18		received a Bachelor of Arts degree in Economic History. I
19		also received a Master of Business Administration with high
20		honors and concentrations in Finance and International
21		Business from Rutgers University.
22		
23		I have offered expert testimony on behalf of investor-owned
24		utilities before more than 35 state regulatory commissions in
25		the United States, the Federal Energy Regulatory Commission,
		D9-534

the Alberta Utility Commission, an American Arbitration Association panel, and the Superior Court of Rhode Island on issues including, but not limited to, common equity cost rate, rate of return, valuation, capital structure, class cost of service, and rate design.

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I also provide services on behalf of the American Gas 7 Association ("AGA"). I calculate the AGA Gas Index, which 8 serves as the benchmark against which the performance of the 9 American Gas Index Fund ("AGIF") is measured on a monthly 10 basis. The AGA Gas Index and AGIF are a market capitalization 11 weighted index and mutual fund, respectively, comprised of 12 the common stocks of the publicly traded corporate members of 13 the AGA. 14

I am a member of the Society of Utility and Regulatory Financial Analysts ("SURFA"). In 2011, I was awarded the professional designation "Certified Rate of Return Analyst" by SURFA, which is based on education, experience, and the successful completion of a comprehensive written examination.

I am also a member of the National Association of Certified Valuation Analysts ("NACVA") and was awarded the professional designation "Certified Valuation Analyst" by the NACVA in 2015.

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	1	
1		The details of my educational background and expert witness
2		appearances are provided in Document No. 13 to my direct
3		testimony.
4		
5	Q.	What is the purpose of your prepared direct testimony in this
6		proceeding?
7		
8	A.	The purpose of my direct testimony is to present evidence and
9		provide the Florida Public Service Commission ("Commission")
10		with a recommendation regarding Peoples Gas System, Inc.'s
11		("Peoples" or the "company") return on common equity ("ROE")
12		for its natural gas operations, and to provide an assessment
13		of the capital structure to be used for ratemaking purposes,
14		as proposed in the direct testimony of Peoples witnesses
15		Rachel B. Parsons and Kenneth D. McOnie.
16		
17	Q.	Did you prepare any exhibits in support of your prepared
18		direct testimony?
19		
20	A.	Yes. Exhibit No. DWD-1 was prepared by me or under my
21		direction and supervision. My analyses and conclusions are
22		supported by the data presented in Document Nos. 1 through
23		13.
24		Document No. 1 Summary of Common Equity Cost Rate
25		Document No. 2 Financial Profile of the Utility Proxy
		D9-536

²⁹⁹ D9-537

	I			
1				Group
2		Document No.	3	Application of the Discounted Cash Flow
3				Model
4		Document No.	4	Application of the Risk Premium Model
5		Document No.	5	Application of the Capital Asset Pricing
6				Model
7		Document No.	6	Basis of Selection for the Non-Price
8				Regulated Companies Comparable in Total
9				Risk to the Utility Proxy Group
10		Document No.	7	Application of Cost of Common Equity Models
11				to the Non-Price Regulated Proxy Group
12		Document No.	8	Derivation of the Flotation Cost Adjustment
13				to the Cost of Common Equity
14		Document No.	9	Derivation of the Indicated Size Premium
15				for Peoples Relative to the Utility Proxy
16				Group
17		Document No.	10	Comparison of Projected Capital
18				Expenditures Relative to Net Plant
19		Document No.	11	Fama & French - Figure 2
20		Document No.	12	Referenced Endnotes for the Prepared Direct
21				Testimony of Dylan W. D'Ascendis
22		Document No.	13	Resume and Testimony Listing of Dylan W.
23				D'Ascendis
24				
25	Q.	What is your	recc	ommended common equity cost rate?
				D9-537

	1	
1	A.	I recommend that the Commission authorize Peoples the
2		opportunity to earn an ROE of 11.00 percent on its
3		jurisdictional rate base, based on its proposed ratemaking
4		capital structure. The company's requested ratemaking
5		capital structure consists of 40.48 percent long-term debt
6		and 54.68 percent common equity, to which my recommended ROE
7		of 11.00 percent would apply. That common equity ratio is
8		consistent with the company's historical equity ratios, and
9		the equity ratios maintained by the Utility Proxy Group
10		(discussed below) and their operating subsidiary utility
11		companies. The overall rate of return is summarized on page
12		1 of Document No. 1.
13		
14	Q.	Please summarize your recommended ROE.
15		
16	A.	My recommended ROE of 11.00 percent is summarized on page 2
17		of Document No. 1. I have assessed the market-based common
18		equity cost rates of companies of relatively similar, but not
19		necessarily identical, risk to Peoples. Using companies of
20		relatively comparable risk as proxies is consistent with the
21		principles of fair rate of return established by the U.S.
22		Supreme Court in two cases: (1) Federal Power Comm'n v. Hope
23		Natural Gas Co., 320 U.S. 591 (1944) ("Hope"); and (2)
24		Bluefield Water Works Improvement Co. v. Public Serv. Comm'n,
25		262 U.S. 679 (1923) ("Bluefield"). No proxy group can be
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<u>identical</u> in risk to any single company. Consequently, there must be an evaluation of relative risk between the company and the proxy group to determine if it is appropriate to adjust the proxy group's indicated rate of return.

My recommendation results from the application of several 6 cost of common equity models, specifically the Discounted 7 8 Cash Flow ("DCF") model, the Risk Premium Model ("RPM"), and the Capital Asset Pricing Model ("CAPM"), to the market data 9 of a proxy group of six natural gas distribution utilities 10 ("Utility Proxy Group") whose selection criteria will be 11 discussed below. In addition, I applied the DCF model, RPM, 12 and CAPM to a Non-Price Regulated Proxy Group similar in total 13 risk to the Utility Proxy Group. In order to be conservative, 14 I did not consider the ROE model results applied to my Non-15 Price Regulated Proxy Group in the determination of my 16 The results derived from each are recommended range. 17 summarized on page 2 of Document No. 1. 18

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The indicated range of common equity cost rates applicable to the Utility Proxy Group is between 10.00 percent and 11.62 percent before any company-specific adjustments.

To reflect Peoples' specific business risks, I adjusted the indicated common equity cost rate model results to reflect

1	the company's smaller relative size, as well as high level of
2	customer growth, overall performance, and capital investment
3	plans, as compared to the Utility Proxy Group. I also
4	adjusted the indicated range of common equity cost rate upward
5	to reflect flotation costs. 1 These adjustments resulted in a
6	company-specific indicated range of common equity cost rates
7	between 10.32 percent and 11.70 percent. Given the Utility
8	Proxy Group and company-specific ranges of common equity cost
9	rates, I recommend the Commission adopt an ROE of 11.00
10	percent for ratemaking purposes in this case.

I

12 II. GENERAL PRINCIPLES

Q. What general principles have you considered in arriving at
 your recommended common equity cost rate of 11.00 percent?

15

In unregulated industries, marketplace competition is the Α. 16 principal determinant of the price of products or services. 17 For regulated public utilities, regulation must act as a 18 substitute for marketplace competition. Assuring that the 19 utility can fulfill its obligations to the public, while 20 providing safe and reliable service at all times, requires a 21 level of earnings sufficient to maintain the integrity of 22 presently invested capital. Sufficient earnings also permit 23 the attraction of needed new capital at a reasonable cost, 24 for which the utility must compete with other companies of 25

1	comparable risk, consistent with the fair rate of return
2	standards established by the U.S. Supreme Court in the
3	previously cited Hope and Bluefield cases.
4	
5	The U.S. Supreme Court affirmed the fair rate of return
6	standards in Hope when it stated:
7	The rate-making process under the Act, i.e., the
8	fixing of 'just and reasonable' rates, involves a
9	balancing of the investor and the consumer
10	interests.
11	
12	Thus we stated in the Natural Gas Pipeline Co. Case
13	that 'regulation does not insure that the business
14	shall produce net revenues.' 315 U.S. at page 590,
15	62 S.Ct. at page 745. But such considerations
16	aside, the investor interest has a legitimate
17	concern with the financial integrity of the company
18	whose rates are being regulated. From the investor
19	or company point of view it is important that there
20	be enough revenue not only for operating expenses
21	but also for the capital costs of the business.
22	These include service on the debt and dividends on
23	the stock. Cf. Chicago & Grand Trunk R. Co. v.
24	Wellman, 143 U.S. 339, 345, 346 12 S.Ct. 400,402.
25	By that standard the return to the equity owner
	D0-5/11

D9-541

should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.²

8 In summary, the U.S. Supreme Court has found a return that is adequate to attract capital at reasonable terms enables the 9 utility to provide service while maintaining its financial 10 11 integrity. As discussed above, and in keeping with established regulatory standards, that return should be 12 commensurate with the returns expected elsewhere 13 for 14 investments of equivalent risk. The Commission's decision in this proceeding, therefore, should provide the company with 15 the opportunity to earn a return that is: (1) adequate to 16 attract capital at reasonable cost and terms; (2) sufficient 17 to ensure its financial integrity; and (3) commensurate with 18 returns on investments in enterprises having corresponding 19 20 risks.

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Lastly, the required return for a regulated public utility is established on a stand-alone basis, *i.e.*, for the utility operating company at issue in a rate case. Parent entities, like other investors, have capital constraints and must look

at the attractiveness of the expected risk-adjusted return of 1 investment alternative in their capital budgeting 2 each process. That is, utility holding companies that own many 3 utility operating companies have choices as to where they 4 will invest their capital within the holding company family. 5 Therefore, the opportunity cost concept applies regardless of 6 the source of the funding, public funding or corporate 7 8 funding. 9

It therefore is important that the authorized ROE reflects 10 the risks and prospects of the utility's operations and 11 supports the utility's financial integrity from a stand-alone 12 perspective, as measured by its combined business 13 and financial risks. Consequently, the ROE authorized in this 14 proceeding should be sufficient to support the operational 15 (i.e., business risk) and financing (i.e., financial risk) of 16 the company's utility subsidiary on a stand-alone basis. 17

18

19 20 Q. Within that broad framework, how is the cost of capital estimated in regulatory proceedings?

21

A. Regulated utilities primarily use common stock and long-term
 debt to finance their permanent property, plant, and
 equipment (*i.e.*, rate base). The fair rate of return for a
 regulated utility is based on its weighted average cost of

10

1	capital, in which, as noted earlier, the costs of the
2	individual sources of capital are weighted by their
3	respective book values.
4	
5	The cost of capital is the return investors require to make
6	an investment in a company. Investors will provide funds to
7	a firm only if the return that they expect is equal to, or
8	greater than, the return that they require to accept the risk
9	of providing funds to the firm.
10	
11	The cost of capital (i.e., the combination of the costs of
12	debt and equity) is based on the economic principle of
13	"opportunity costs." Investing in any asset (whether debt or
14	equity securities) represents a forgone opportunity to invest
15	in alternative assets. For any investment to be sensible,
16	its expected return must be at least equal to the return
17	expected on alternative, comparable risk investment
18	opportunities. Because investments with like risks should
19	offer similar returns, the opportunity cost of an investment
20	should equal the return available on an investment of
21	comparable risk.
22	
23	Whereas the cost of debt is contractually defined and can be
24	directly observed as the interest rate or yield on debt
25	securities, the cost of common equity must be estimated based

D9-544

11

on market data and various financial models. 1 Because the cost of common equity is premised on opportunity costs, the 2 models used to determine it are typically applied to a group 3 of "comparable" or "proxy" companies. 4 5 In the end, the estimated cost of capital should reflect the 6 return that investors require in light of the subject 7 8 company's business and financial risks, and the returns available on comparable investments. 9 10 Q. Is the authorized return set in regulatory proceedings 11 guaranteed? 12 13 14 Α. No, it is not. Consistent with the Hope and Bluefield standards, the ratemaking process should provide the utility 15 a reasonable opportunity to recover its return of, and return 16 on, its reasonably incurred investments, but it does not 17 guarantee that return. While a utility may have control over 18 some factors that affect the ability to earn its authorized 19 20 return (e.g., management performance, operating and maintenance expenses, etc.), there are several factors beyond 21 a utility's control that affect its ability to earn its 22 authorized return. Those may include factors such as weather, 23 the economy, and the prevalence and magnitude of regulatory 24 lag. 25

D9-545

1 A. Business Risk

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2 Q. Please define business risk and explain why it is important
3 for determining a fair rate of return.

A. The investor-required return on common equity reflects
investors' assessment of the total investment risk of the
subject firm. Total investment risk is often discussed in
the context of business and financial risk.³

Business risk reflects the uncertainty associated with owning a company's common stock without the company's use of debt and/or preferred stock financing. One way of considering the distinction between business and financial risk is to view the former as the uncertainty of the expected earned return on common equity, assuming the firm is financed with no debt.

Examples of business risks generally faced by utilities 17 include, but are not limited to, the regulatory environment, 18 mandatory environmental compliance requirements, customer mix 19 20 and concentration of customers, service territory economic growth, market demand, risks and uncertainties of supply, 21 operations, capital intensity, size, the degree of operating 22 leverage, emerging technologies, the vagaries of weather, and 23 the like, all of which have a direct bearing on earnings. 24

25

Although analysts, including ratings agencies, may categorize 1 business risks individually, as a practical matter, such 2 risks are interrelated and not wholly distinct from one 3 When determining an appropriate return on common another. 4 equity, the relevant issue is where investors see the subject 5 company in relation to other similarly situated utility 6 companies (e.g., those in the Utility Proxy Group). 7 To the 8 extent investors view a company as being exposed to higher risk, the required return will increase, and vice versa. 9 10 For regulated utilities, business risks are both long-term 11 and near-term in nature. Whereas near-term business risks 12 are reflected in year-to-year variability in earnings and 13 cash flow brought about by economic or regulatory factors, 14 long-term business risks reflect the prospect of an impaired 15 ability of investors to obtain both a fair rate of return on, 16 and return of, their capital. Moreover, because utilities 17 accept the obligation to provide safe, adequate, and reliable 18 service at all times (in exchange for a reasonable opportunity 19 20 to earn a fair return on their investment), they generally do not have the option to delay, defer, or reject capital 21 investments. Because those investments are capital-22 intensive, utilities generally do not have the option to avoid 23 raising external funds during periods of capital market 24 distress, if necessary. 25

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Because utilities invest in long-lived assets, long-term 1 business risks are of paramount concern to equity investors. 2 That is, the risk of not recovering the return on their 3 investment extends far into the future. The timing and nature 4 of events that may lead to losses, however, also are uncertain 5 and, consequently, those risks and their implications for the 6 required return on equity tend to be difficult to quantify. 7 8 Regulatory commissions (like investors who commit their capital) must review a variety of quantitative 9 and qualitative data apply their reasoned judgment 10 and to determine how long-term risks weigh in their assessment of 11 the market-required return on common equity. 12

13

14

B. Financial Risk

15 Q. Please define financial risk and explain why it is important 16 for determining a fair rate of return.

17

Financial risk is the additional risk created by Α. 18 the introduction of debt and preferred stock into the capital 19 20 structure. The higher the proportion of debt and preferred stock in the capital structure, the higher the financial risk 21 to common equity owners (i.e., failure to receive dividends 22 23 due to default or other covenants). Therefore, consistent with the basic financial principle of risk and return, common 24 equity investors require higher returns as compensation for 25

1		bearing higher financial risk.
2		
3	Q.	Can bond and credit ratings be a proxy for a firm's combined
4		business and financial risks to equity owners (i.e.,
5		investment risk)?
6		
7	A.	Yes, similar bond ratings/issuer credit ratings reflect, and
8		are representative of, similar combined business and
9		financial risks (i.e., total risk) faced by bond investors. ⁴
10		Although specific business or financial risks may differ
11		between companies, the same bond/credit rating indicates that
12		the combined risks are roughly similar from a debtholder
13		perspective. The caveat is that these debtholder risk
14		measures do not translate directly to risks for common equity.
15		
16	Q.	Do ratings agencies account for company size in their bond
17		ratings?
18		
19	A.	No. Neither Standard & Poor's Ratings Services ("S&P") nor
20		Moody's Investors Service ("Moody's") have minimum company
21		size requirements for any given rating level. This means,
22		all else being equal, a relative size analysis must be
23		conducted for equity investments in companies with similar
24		bond ratings.
25		
		D9-549

D9-549

1	III.	PEOPLES AND THE UTILITY PROXY GROUP
2	Q.	Are you familiar with Peoples' operations?
3	~	
4	A.	Yes. As of the end of December, 2022, Peoples Gas System was
5		a division of Tampa Electric Company providing natural gas
6		distribution service to over 467,000 residential, commercial,
7		industrial and electric power generation customers in the
8		state of Florida. ⁵ As of January 1, 2023, the assets of
9		Peoples Gas System, a division of Tampa Electric Company were
10		transferred to Peoples Gas System, Inc., a wholly owned
11		subsidiary of TECO Gas Operations, Inc., which is not publicly
12		traded as it comprises an operating subsidiary of TECO Energy,
13		Inc., whose ultimate parent is Emera Incorporated ("Emera"). 6
14		Emera has electric generation, transmission and distribution
15		operations, natural gas transmission and distribution
16		operations, and non-regulated energy marketing operations in
17		the U.S., Canada, and Caribbean Islands. ⁷ Emera is publicly
18		traded on the Toronto Stock Exchange under ticker symbol EMA.
19		
20	Q.	Why is it necessary to develop a proxy group when estimating
21		the ROE for the company?
22		
23	A.	Because the company is not publicly traded and does not have
24		publicly traded equity securities, it is necessary to develop
25		groups of publicly traded, comparable companies to serve as
		17 D9-550

"proxies" for the company. In addition to the analytical 1 necessity of doing so, the use of proxy companies 2 is consistent with the Hope and Bluefield comparable risk 3 standards, as discussed above. I have selected two proxy 4 groups that, in my view, are fundamentally risk-comparable to 5 the company: a Utility Proxy Group, and a Non-Price Regulated 6 Proxy Group that is comparable in total risk to the Utility 7 8 Proxy Group.⁸

9

Even when proxy groups are carefully selected, it is common 10 for analytical results to vary from company to company. 11 Despite the care taken to ensure comparability, because no 12 two companies are identical, market expectations regarding 13 future risks and prospects will vary within the proxy group. 14 It therefore is common for analytical results to reflect a 15 seemingly wide range, even for a group of similarly situated 16 companies. At issue is how to estimate the ROE from within 17 That determination will be best informed by that range. 18 employing a variety of sound analyses that necessarily must 19 20 consider the sort of quantitative and qualitative information discussed throughout my direct testimony. Additionally, a 21 relative risk analysis between the company and the Utility 22 Proxy Group must be made to determine whether or not explicit 23 company-specific adjustments need to be made to the Utility 24 Proxy Group's indicated results. 25

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1	Q.	Please explain how you selected the companies in the Utility
2		Proxy Group.
3		
4	A.	The companies selected for the Utility Proxy Group met the
5		following criteria:
6		ullet They were included in the Natural Gas Utility Group of
7		Value Line's Standard Edition (November 25, 2022) ("Value
8		Line");
9		• They have 60 percent or greater of fiscal year 2021 total
10		operating income derived from, and 60 percent or greater
11		of fiscal year 2021 total assets attributable to,
12		regulated gas distribution operations;
13		• At the time of preparation of this testimony, they had
14		not publicly announced that they were involved in any
15		major merger or acquisition activity (i.e., one publicly-
16		traded utility merging with or acquiring another) or any
17		other major development;
18		• They have not cut or omitted their common dividends during
19		the five years ended 2021 or through the time of
20		preparation of this testimony;
21		• They have Value Line and Bloomberg Professional Services
22		("Bloomberg") adjusted Beta coefficients ("beta");
23		• They have positive Value Line five-year dividends per
24		share ("DPS") growth rate projections; and
25		• They have Value Line, Zacks, or Yahoo! Finance consensus
		19 D9-552
		19

1		five-year earnings per share ("EPS") growth rate
2		projections.
3		
4	Q.	Please identify the companies that met the above-stated
5		criteria.
6		
7	A.	The following six companies met these criteria: Atmos Energy
8		Corporation (Ticker: ATO); New Jersey Resources Corporation
9		(Ticker: NJR); NiSource Inc. (Ticker: NI); Northwest Natural
10		Gas Company (Ticker: NWN); ONE Gas, Inc. (Ticker: OGS); and
11		Spire Inc. (Ticker: SR).
12		
13	Q.	Please describe Document No. 2, page 1.
14		
15	A.	Page 1 of Document No. 2 contains comparative capitalization
16		and financial statistics for the Utility Proxy Group for the
17		five years from 2017 to 2021.
18		
19		During the five-year period ending December 31, 2021, the
20		historically achieved average earnings rate on book common
21		equity for the group was 8.13 percent, the average common
22		equity ratio based on total permanent capital (excluding
23		short-term debt) was 50.13 percent, and the average dividend
24		payout ratio was 63.67 percent.
25		
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	1	
1		Total debt to earnings before interest, taxes, depreciation,
2		and amortization for the years 2017 to 2021 ranges between
3		4.96 and 7.65 times, with an average of 5.75 times. Funds
4		from operations to total debt range from 11.70 percent to
5		24.21 percent, with an average of 15.94 percent.
6		
7	IV.	CAPITAL STRUCTURE
8	Q.	What is Peoples' requested capital structure?
9		
10	A.	Peoples' requested capital structure consists of 40.48
11		percent long-term debt and 54.68 percent common equity, as
12		shown in my Document No. 1 that is based on data included in
13		the company's MFR Schedule G-3, page 2.
14		
15	Q.	What are the typical sources of capital commonly considered
16		in establishing a utility's capital structure?
17		
18	A.	Common equity and long-term debt are commonly considered in
19		establishing a utility's capital structure, because they are
20		the typical sources of capital financing for a utility's rate
21		base.
22		
23	Q.	Please explain.
24		
25	A.	Long-lived assets are typically financed with long-lived
		D9-554
		21

securities, so that the overall term structure of the utility's long-term liabilities (both debt and equity) closely match the life of the assets being financed. As stated by Brigham and Houston:

> In practice, firms don't finance each specific asset with a type of capital that has a maturity equal to the asset's life. However, academic studies do show that most firms tend to finance short-term assets from short-term sources and longterm assets from long-term sources.⁹

Whereas short-term debt has a maturity of one year or less, 12 long-term debt may have maturities of 30 years or longer. 13 Although there are practical financing constraints, such as 14 15 the need to "stagger" long-term debt maturities, the general objective is to extend the average life of long-term debt. 16 Still, long-term debt has a finite life, which is likely to 17 be less than the life of the assets included in rate base. 18 Common equity, on the other hand, is outstanding into 19 20 perpetuity. Thus, common equity more accurately matches the life of the going concern of the utility, which is also 21 assumed to operate in perpetuity. Consequently, it is both 22 typical and important for utilities to have significant 23 proportions of common equity in their capital structures. 24

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Q. Why is it important that the company's requested capital structure, consisting of 40.48 percent long-term debt and 54.68 percent common equity, be authorized in this proceeding?

5

15

In order to continue to provide safe and reliable service to 6 Α. 7 its customers, Peoples must meet the needs and serve the 8 interests of its various stakeholders, including its customers, shareholders, and bondholders. The interests of 9 these stakeholder groups are aligned with maintaining a 10 healthy balance sheet, strong credit ratings, and 11 а supportive regulatory environment, so that the company has 12 access to capital on reasonable terms in order to make 13 14 necessary investments.

Safe and reliable service cannot be maintained at a reasonable 16 cost if utilities do not have the financial flexibility and 17 access competitive financing markets strength to 18 on reasonable terms. The authorization of a capital structure 19 20 that understates the company's actual common equity will weaken the financial condition of its operations 21 and adversely impact the company's ability to address expenses 22 investments, to the detriment of 23 and customers and shareholders. Safe and reliable service for customers cannot 24 be sustained over the long term if the interests of 25

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1		shareholders and bondholders are minimized such that the
2		public interest is not optimized.
3		
4	Q.	How does the company's requested common equity ratio of 54.68
5		percent compare with the common equity ratios maintained by
6		the Utility Proxy Group?
7		
8	A.	The company's requested ratemaking common equity ratio of
9		54.68 percent is reasonable and consistent with the range of
10		common equity ratios maintained by the Utility Proxy Group.
11		
12		As shown on page 2 of Document No. 2, common equity ratios
13		for the Utility Proxy Group range from 33.36 percent to 60.65
14		percent for fiscal year 2021. ¹⁰ I also considered Value Line
15		projected capital structures for the Utility Proxy Group for
16		2025-2027. That analysis showed a range of projected common
17		equity ratios between 39.50 percent and 60.00 percent for the
18		Utility Proxy Group (see, pages 2 through 7 of Document No.
19		3).
20		
21		In addition to comparing the company's proposed common equity
22		ratio with common equity ratios currently and expected to be
23		maintained by the Utility Proxy Group, I also compared the
24		company's proposed common equity ratio with the equity ratios
25		maintained by the operating subsidiaries of the Utility Proxy

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	1	
1		Group. As shown on page 3 of Document No. 2, common equity
2		ratios of the operating utility subsidiaries of the companies
3		in the Utility Proxy Group range from 38.74 percent to 58.48
4		percent for fiscal year 2021.
5		
6	Q.	Given the range of equity ratios present within the Utility
7		Proxy Group, is the equity ratio of 54.68 percent proposed by
8		Peoples appropriate for ratemaking purposes?
9		
10	A.	Yes, it is.
11		
12	v.	COMMON EQUITY COST RATE MODEL
13	Q.	Is it important that cost of common equity models be market-
14		based?
15		
16	A.	Yes. While a public utility operates a regulated business
17		within the states in which it operates, it still must compete
18		for equity in capital markets along with all other companies
19		of comparable risk, which includes non-utilities. The cost
20		of common equity is thus determined based on equity market
21		expectations for the returns of those companies. If an
22		individual investor is choosing to invest their capital among
23		companies of comparable risk, they will choose a company
24		providing a higher return over a company providing a lower
25		return.
	1	

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Are your cost of common equity models market-based? 1 Q. 2 3 Α. Yes. The DCF model uses market prices in developing the model's dividend yield component. The RPM uses bond ratings 4 and expected bond yields that reflect the market's assessment 5 of bond/credit risk. In addition, betas (β) , which reflect 6 the market/systematic risk component of equity risk premium, 7 8 are derived from regression analyses of market prices. The Predictive Risk Premium Model ("PRPM") uses monthly market 9 returns in addition to expectations of the risk-free rate. 10 The CAPM is market-based for many of the same reasons that 11 the RPM is market-based (i.e., the use of expected bond yields 12 Selection criteria for comparable risk, nonand betas). 13 price regulated companies are based on regression analyses of 14 market prices and reflect the market's assessment of total 15 risk. 16 17 What analytical approaches did you use to determine the 18 Q. company's ROE? 19 20 As discussed earlier, I have relied on the DCF model, the 21 Α. RPM, and the CAPM, which I applied to the Utility Proxy Group 22 described above. I also applied these same models to a Non-23 Price Regulated Proxy Group described later in this section. 24 25

I rely on these models because reasonable investors use a 1 variety of tools and do not rely exclusively on a single 2 source of information or single model. Moreover, the models 3 which I rely focus on different aspects of return 4 on requirements and provide different insights to investors' 5 views of risk and return. The DCF model, for example, 6 estimates the investor-required return assuming a constant 7 8 expected dividend yield and growth rate in perpetuity, while Premium-based methods (*i.e.*, the Risk RPM and CAPM 9 approaches) provide the ability to reflect investors' views 10 of risk, future market returns, and the relationship between 11 interest rates and the cost of common equity. Just as the 12 use of market data for the Utility Proxy Group adds the 13 reliability necessary to inform expert judgment in arriving 14 at a recommended common equity cost rate, the use of multiple 15 generally accepted common equity cost rate models also adds 16 reliability and accuracy when arriving at a recommended 17 common equity cost rate. 18 19 20 Q. Has the Commission approved the use of multiple methods in determining the cost of equity during past rate cases of 21 Peoples? 22 23

A. Yes. In Docket No. 20080318-GU, the Commission stated that
 there are several models which satisfy the terms for

determining a fair rate of return as laid out by *Hope* and *Bluefield*:

While the logic of the legal and economic concepts 3 of a fair rate of return are fairly straight 4 the actual implementation of 5 forward, these concepts is more controversial. Unlike the cost 6 rate on debt that is fixed and known due to its 7 8 contractual terms, the cost of equity must be estimated. Financial models have been developed to 9 estimate the investor-required ROE for a company. 10 Market-based approaches such as the Discounted Cash 11 Flow (DCF) model and the Capital Asset Pricing 12 Model (CAPM) are generally recognized as being 13 consistent with the market-based standards of a 14 fair return enunciated in Hope, 320 U.S. 591 and 15 Bluefield, 262 U.S. 679. [Emphasis added]¹¹ 16

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A. Discounted Cash Flow Model

19 **Q.** What is the theoretical basis of the DCF model?

20

A. The theory underlying the DCF model is that the present value of an expected future stream of net cash flows during the investment holding period can be determined by discounting those cash flows at the cost of capital, or the investors' capitalization rate. DCF theory indicates that an investor

³²⁴ D9-562

<pre>g = the growth rate. g = the growth rate. Q. Which version of the DCF model did you use? A. I relied on the single-stage constant growth DCF model in my analyses. 9 Q. Please describe the dividend yield you used in applying the constant growth DCF model. 21 A. The unadjusted dividend yields are based on the proxy companies' dividends as of December 30, 2022, divided by the average closing market price for the 60 trading days ended December 30, 2022 (see, Column 1, page 1 of Document No. 3).</pre>		1	
3price appreciation. Mathematically, the dividend yield on market price plus a growth rate equals the capitalization rate (i.e., the total common equity return rate expected by investors), as depicted in the formula below:7 $K_e = (D_0 (1+g))/P + g$ 8Where:9 K_e = the required return on common equity;10 D_0 = the annualized dividend per share;11 P = the current stock price; and12 g = the growth rate.13014Q. Which version of the DCF model did you use?15A. I relied on the single-stage constant growth DCF model in my analyses.19Q. Please describe the dividend yield you used in applying the constant growth DCF model.22A. The unadjusted dividend yields are based on the proxy companies' dividends as of December 30, 2022, divided by the average closing market price for the 60 trading days ended December 30, 2022 (see, Column 1, page 1 of Document No. 3).	1		buys a stock for an expected total return rate, which is
4market price plus a growth rate equals the capitalization5rate (i.e., the total common equity return rate expected by6investors), as depicted in the formula below:7 $K_e = (D_0 (1+g))/P + g$ 8Where:9 K_e = the required return on common equity;10 D_0 = the annualized dividend per share;11 P = the current stock price; and12 g = the growth rate.13014Q.15I relied on the single-stage constant growth DCF model in my16A.17Please describe the dividend yield you used in applying the20Please describe the dividend yields are based on the proxy21Companies' dividends as of December 30, 2022, divided by the22average closing market price for the 60 trading days ended23December 30, 2022 (see, Column 1, page 1 of Document No. 3).	2		derived from the cash flows received from dividends and market
5rate (i.e., the total common equity return rate expected by6investors), as depicted in the formula below:7 $K_e = (D_0 (1+g))/P + g$ 8Where:9 $K_e =$ the required return on common equity;10 $D_0 =$ the annualized dividend per share;11 $P =$ the current stock price; and12 $g =$ the growth rate.13Q.14Q.9I relied on the single-stage constant growth DCF model in my analyses.18Q.19Q.9Please describe the dividend yield you used in applying the constant growth DCF model.12A.13The unadjusted dividend yields are based on the proxy companies' dividends as of December 30, 2022, divided by the average closing market price for the 60 trading days ended December 30, 2022 (see, Column 1, page 1 of Document No. 3).	3		price appreciation. Mathematically, the dividend yield on
 investors), as depicted in the formula below: K_e = (D₀ (1+g))/P + g Where: K_e = the required return on common equity; D₀ = the annualized dividend per share; P = the current stock price; and g = the growth rate. Q. Which version of the DCF model did you use? A. I relied on the single-stage constant growth DCF model in my analyses. Q. Please describe the dividend yield you used in applying the constant growth DCF model. A. The unadjusted dividend yields are based on the proxy companies' dividends as of December 30, 2022 (see, Column 1, page 1 of Document No. 3). 	4		market price plus a growth rate equals the capitalization
7 $K_e = (D_0 \ (1+g))/P + g$ 8Where:9 $K_e =$ the required return on common equity;10 $D_0 =$ the annualized dividend per share;11 $P =$ the current stock price; and12 $g =$ the growth rate.13014Q. Which version of the DCF model did you use?1516A. I relied on the single-stage constant growth DCF model in my analyses.19Q. Please describe the dividend yield you used in applying the constant growth DCF model.21A. The unadjusted dividend yields are based on the proxy companies' dividends as of December 30, 2022, divided by the average closing market price for the 60 trading days ended December 30, 2022 (see, Column 1, page 1 of Document No. 3).	5		rate (i.e., the total common equity return rate expected by
 8 Where: 9 Ke = the required return on common equity; 10 D0 = the annualized dividend per share; 11 P = the current stock price; and 12 g = the growth rate. 13 14 Q. Which version of the DCF model did you use? 15 16 A. I relied on the single-stage constant growth DCF model in my analyses. 18 19 Q. Please describe the dividend yield you used in applying the constant growth DCF model. 21 A. The unadjusted dividend yields are based on the proxy companies' dividends as of December 30, 2022, divided by the average closing market price for the 60 trading days ended December 30, 2022 (see, Column 1, page 1 of Document No. 3). 	6		investors), as depicted in the formula below:
<i>K_e</i> = the required return on common equity; <i>D₀</i> = the annualized dividend per share; <i>P</i> = the current stock price; and <i>g</i> = the growth rate. Which version of the DCF model did you use? A. I relied on the single-stage constant growth DCF model in my analyses. Q. Please describe the dividend yield you used in applying the constant growth DCF model. A. The unadjusted dividend yields are based on the proxy companies' dividends as of December 30, 2022, divided by the average closing market price for the 60 trading days ended December 30, 2022 (see, Column 1, page 1 of Document No. 3).	7		$K_e = (D_0 (1+g)) / P + g$
10 D ₀ = the annualized dividend per share; P = the current stock price; and g = the growth rate. 13 14 Q. Which version of the DCF model did you use? 15 16 A. I relied on the single-stage constant growth DCF model in my analyses. 18 19 Q. Please describe the dividend yield you used in applying the constant growth DCF model. 21 22 A. The unadjusted dividend yields are based on the proxy companies' dividends as of December 30, 2022, divided by the average closing market price for the 60 trading days ended December 30, 2022 (see, Column 1, page 1 of Document No. 3).	8		Where:
P = the current stock price; and g = the growth rate. Which version of the DCF model did you use? A. I relied on the single-stage constant growth DCF model in my analyses. Please describe the dividend yield you used in applying the constant growth DCF model. A. The unadjusted dividend yields are based on the proxy companies' dividends as of December 30, 2022, divided by the average closing market price for the 60 trading days ended December 30, 2022 (see, Column 1, page 1 of Document No. 3).	9		K_e = the required return on common equity;
12 g = the growth rate. 13 14 Q. Which version of the DCF model did you use? 15 16 A. I relied on the single-stage constant growth DCF model in my 17 analyses. 18 19 Q. Please describe the dividend yield you used in applying the 20 constant growth DCF model. 21 22 A. The unadjusted dividend yields are based on the proxy 23 companies' dividends as of December 30, 2022, divided by the 24 average closing market price for the 60 trading days ended 25 December 30, 2022 (see, Column 1, page 1 of Document No. 3).	10		D_0 = the annualized dividend per share;
13 14 Q. Which version of the DCF model did you use? 15 16 A. I relied on the single-stage constant growth DCF model in my 17 analyses. 18 19 Q. Please describe the dividend yield you used in applying the 20 constant growth DCF model. 21 22 A. The unadjusted dividend yields are based on the proxy 23 companies' dividends as of December 30, 2022, divided by the 24 average closing market price for the 60 trading days ended 25 December 30, 2022 (see, Column 1, page 1 of Document No. 3).	11		P = the current stock price; and
 Q. Which version of the DCF model did you use? A. I relied on the single-stage constant growth DCF model in my analyses. Q. Please describe the dividend yield you used in applying the constant growth DCF model. A. The unadjusted dividend yields are based on the proxy companies' dividends as of December 30, 2022, divided by the average closing market price for the 60 trading days ended December 30, 2022 (see, Column 1, page 1 of Document No. 3). 	12		g = the growth rate.
 A. I relied on the single-stage constant growth DCF model in my analyses. Q. Please describe the dividend yield you used in applying the constant growth DCF model. A. The unadjusted dividend yields are based on the proxy companies' dividends as of December 30, 2022, divided by the average closing market price for the 60 trading days ended December 30, 2022 (see, Column 1, page 1 of Document No. 3). 	13		
 A. I relied on the single-stage constant growth DCF model in my analyses. Q. Please describe the dividend yield you used in applying the constant growth DCF model. A. The unadjusted dividend yields are based on the proxy companies' dividends as of December 30, 2022, divided by the average closing market price for the 60 trading days ended December 30, 2022 (see, Column 1, page 1 of Document No. 3). 	14	Q.	Which version of the DCF model did you use?
<pre>17 analyses. 18 19 Q. Please describe the dividend yield you used in applying the 20 constant growth DCF model. 21 22 A. The unadjusted dividend yields are based on the proxy 23 companies' dividends as of December 30, 2022, divided by the 24 average closing market price for the 60 trading days ended 25 December 30, 2022 (see, Column 1, page 1 of Document No. 3).</pre>	15		
18 19 Q. Please describe the dividend yield you used in applying the 20 constant growth DCF model. 21 22 A. The unadjusted dividend yields are based on the proxy 23 companies' dividends as of December 30, 2022, divided by the 24 average closing market price for the 60 trading days ended 25 December 30, 2022 (see, Column 1, page 1 of Document No. 3).	16	A.	I relied on the single-stage constant growth DCF model in my
9 Q. Please describe the dividend yield you used in applying the constant growth DCF model. A. The unadjusted dividend yields are based on the proxy companies' dividends as of December 30, 2022, divided by the average closing market price for the 60 trading days ended December 30, 2022 (see, Column 1, page 1 of Document No. 3).	17		analyses.
constant growth DCF model. A. The unadjusted dividend yields are based on the proxy companies' dividends as of December 30, 2022, divided by the average closing market price for the 60 trading days ended December 30, 2022 (see, Column 1, page 1 of Document No. 3).	18		
A. The unadjusted dividend yields are based on the proxy companies' dividends as of December 30, 2022, divided by the average closing market price for the 60 trading days ended December 30, 2022 (see, Column 1, page 1 of Document No. 3).	19	Q.	Please describe the dividend yield you used in applying the
A. The unadjusted dividend yields are based on the proxy companies' dividends as of December 30, 2022, divided by the average closing market price for the 60 trading days ended December 30, 2022 (see, Column 1, page 1 of Document No. 3).	20		constant growth DCF model.
companies' dividends as of December 30, 2022, divided by the average closing market price for the 60 trading days ended December 30, 2022 (<i>see</i> , Column 1, page 1 of Document No. 3).	21		
average closing market price for the 60 trading days ended December 30, 2022 (<i>see</i> , Column 1, page 1 of Document No. 3).	22	A.	The unadjusted dividend yields are based on the proxy
December 30, 2022 (see, Column 1, page 1 of Document No. 3).	23		companies' dividends as of December 30, 2022, divided by the
	24		average closing market price for the 60 trading days ended
D9-562	25		December 30, 2022 (see, Column 1, page 1 of Document No. 3).
29		I	29 D9-562

	1	
1	Q.	Please explain your adjustment to the dividend yield.
2		
3	A.	Because dividends are paid periodically (e.g., quarterly), as
4		opposed to continuously (daily), an adjustment must be made
5		to the dividend yield. This is often referred to as the
6		discrete, or the Gordon Periodic, version of the DCF model.
7		
8		DCF theory calls for using the full growth rate, or D_1 , in
9		calculating the model's dividend yield component. Since the
10		companies in the Utility Proxy Group increase their quarterly
11		dividends at various times during the year, a reasonable
12		assumption is to reflect one-half the annual dividend growth
13		rate in the dividend yield component, or $D_{1/2}.$ Because the
14		dividend should be representative of the next 12-month
15		period, this adjustment is a conservative approach that does
16		not overstate the dividend yield. Therefore, the actual
17		average dividend yields in Column 1, page 1 of Document No.
18		3 have been adjusted upward to reflect one-half the average
19		projected growth rate shown in Column 5.
20		
21	Q.	Please explain the basis for the growth rates you apply to
22		the Utility Proxy Group in your constant growth DCF model.
23		
24	A.	Investors are likely to rely on widely available financial
25		information services, such as Value Line, Zacks, and Yahoo!
		D9-563

	1	
1		Finance. Investors realize that analysts have significant
2		insight into the dynamics of the industries and individual
3		companies they analyze, as well as companies' abilities to
4		effectively manage the effects of changing laws and
5		regulations, and ever-changing economic and market
6		conditions. For these reasons, I used analysts' five-year
7		forecasts of earnings per share growth in my DCF analysis.
8		
9		Over the long run, there can be no growth in dividends per
10		share without growth in earnings per share. Security
11		analysts' earnings expectations have a more significant
12		influence on market prices than dividend expectations. Thus,
13		using projected earnings growth rates in a DCF analysis
14		provides a better match between investors' market price
15		appreciation expectations and the growth rate component of
16		the DCF.
17		
18	Q.	Please summarize the constant growth DCF model results.
19		
20	A.	As shown on page 1 of Document No. 3, the application of the
21		constant growth DCF model to the Utility Proxy Group results
22		in a range of indicated ROEs from 8.80 percent to 11.70
23		percent. The mean of those results is 10.12 percent, the
24		median result is 9.89 percent, and the average of the two is
25		10.00 percent.
		D9-564

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1		In arriving at a conclusion for the constant growth DCF-
2		indicated common equity cost rate for the Utility Proxy Group,
3		I relied on an average of the mean and the median results of
4		the DCF, specifically 10.00 percent, applicable to the
5		Utility Proxy Group. This approach takes into consideration
6		all proxy company results while mitigating high and low side
7		outliers of those results.
8		
9	в.	The Risk Premium Model
10	Q.	Please describe the theoretical basis of the Risk Premium
11		Model.
12		
13	A.	The RPM is based on the fundamental financial principle of
14		risk and return; namely, that investors require greater
15		returns for bearing greater risk. The RPM recognizes that
16		common equity capital has greater investment risk than debt
17		capital, as common equity shareholders are behind debt
18		holders in any claim on a company's assets and earnings. As
19		a result, investors require higher returns from common stocks
20		than from bonds to compensate them for bearing the additional
21		risk.
22		
23		While it is possible to directly observe bond returns and
24		yields, common equity returns required by investors cannot be
25		directly determined or observed. According to RPM theory,
		D9-565
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1		one can estimate a common equity risk premium over bonds
2		(either historically or prospectively) and use that premium
3		to derive a cost rate of common equity. The cost of common
4		equity equals the expected cost rate for long-term debt
5		capital, plus a risk premium over that cost rate, to
6		compensate common shareholders for the added risk of being
7		unsecured and last-in-line for any claim on the corporation's
8		assets and earnings upon liquidation.
9		
10	Q.	Please explain how you derived your indicated cost of common
11		equity based on the RPM.
12		
13	A.	To derive my indicated cost of common equity under the RPM,
14		I used two risk premium methods. The first method was the
15		PRPM and the second method was a risk premium model using a
16		total market approach. The PRPM estimates the risk-return
17		relationship directly, while the total market approach
18		indirectly derives a risk premium by using known metrics as
19		a proxy for risk.
20		
21	The	Predictive Risk Premium Model
22	Q.	Please explain the PRPM.
23		
24	A.	The PRPM, published in the Journal of Regulatory Economics, 12
25		was developed from the work of Robert F. Engle, who shared
		33 D9-566

the Nobel Prize in Economics in 2003 "for methods of analyzing economic time series with time-varying volatility" or ARCH.¹³ Engle found that volatility changes over time and is related from one period to the next, especially in financial markets. Engle discovered that volatility of prices and returns clusters over time and is, therefore, highly predictable and can be used to predict future levels of risk and risk premiums.

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10 The PRPM estimates the risk-return relationship directly, as 11 the predicted equity risk premium is generated by predicting 12 volatility or risk. The PRPM is not based on an <u>estimate</u> of 13 investor behavior, but rather on an evaluation of the results 14 of that behavior (*i.e.*, the variance of historical equity 15 risk premiums).

A generalized form of the ARCH methodology ("GARCH") has been 17 well tested by academia since Engle's, et al. research was 18 originally published in 1982, 40 years ago. The PRPM is in 19 20 the public domain, having been published six times in academically peer-reviewed journals: Journal of Economics and 21 Business (June 2011 and April 2015),¹⁴ The Journal of 22 2011),¹⁵ Regulatory Economics (December The Electricity 23 Journal (May 2013 and March 2020), ¹⁶ and Energy Policy (April 24 2019).¹⁷ Notably, none of these articles have been rebutted 25

D9-567

1		in the academic literature.
2		
3		The PRPM is also cited in the following textbooks on cost of
4		capital by authors unaffiliated with the authors of the
5		academic articles cited above:
6		• Shannon Pratt and Roger Grabowski, <u>Cost of Capital:</u>
7		Applications and Examples, (Fifth Edition), Wiley & Sons,
8		2015;
9		• Shannon Pratt and Roger Grabowski, The Lawyer's Guide to
10		Cost of Capital: Understanding Risk and Return for Valuing
11		Businesses and Other Investments, ABA Publishing, 2015;
12		and
13		• Roger A. Morin, Modern Regulatory Finance, PUR Books, 2021.
14		
15	Q.	Please explain the application of the PRPM.
16		
17	A.	The inputs to the model are the historical returns on the
18		common shares of each of the Utility Proxy Group's companies
19		minus the historical monthly yield on long-term U.S. Treasury
20		securities through December 2022. Using GARCH, I calculated
21		each of the Utility Proxy Group's companies' projected equity
22		risk premium using Eviews $^{\odot}$ statistical software. When the
23		GARCH model is applied to the historical return data, it
24		produces a predicted GARCH variance series (as illustrated on
25		Columns 1 and 2, page 2 of Document No. 4) and a GARCH

	1	
1		coefficient (as illustrated on Column 4, page 2 of Document
2		No. 4). Multiplying the predicted monthly variance by the
3		GARCH coefficient and then annualizing it^{18} produces the
4		predicted annual equity risk premium. I then added the
5		forecasted 30-year U.S. Treasury bond yield of 3.91 percent
6		(see, Column 6, page 2 of Document No. 4) to each company's
7		PRPM-derived equity risk premium to arrive at an indicated
8		cost of common equity. The 30-year U.S. Treasury bond yield
9		is a consensus forecast derived from Blue Chip Financial
10		Forecasts ("Blue Chip"). ¹⁹
11		
12	Q.	Please describe your selection of a risk-free rate of return.
13		
14	A.	As shown in Document Nos. 4 and 5, the risk-free rate of
15		return adopted for applications of the RPM and CAPM is 3.91
16		percent. This risk-free rate is based on the average of the
17		Blue Chip consensus forecast of the expected yields on 30-
18		year U.S. Treasury bonds for the six quarters ending with the
19		first calendar quarter of 2024, and long-term projections for
20		the years 2024 to 2028 and 2029 to 2033.
21		
22	Q.	Why did you use the projected 30-year Treasury yield in your
23		analyses?
24		
25	A.	The yield on long-term U.S. Treasury bonds is almost risk-
		36 D9-569
		00

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1		free and its term is consistent with the long-term cost of
2		capital to public utilities measured by the yields on Moody's
3		A2-rated public utility bonds; the long-term investment
4		horizon inherent in utilities' common stocks; and the long-
5		term life of the jurisdictional rate base to which the allowed
6		fair rate of return (<i>i.e.</i> , cost of capital) will be applied.
7		In contrast, short-term U.S. Treasury yields are more
8		volatile and largely a function of Federal Reserve monetary
9		policy.
10		
11	Q.	What are the results of the PRPM as applied to the Utility
12		Proxy Group?
13		
14	A.	As shown on page 2 of Document No. 4, the mean PRPM-indicated
15		common equity cost rate for the Utility Proxy Group is 11.80
16		percent, the median is 12.23 percent, and the average of the
17		two is 12.02 percent. Consistent with my reliance on the
18		average of the median and mean results of the DCF model, I
19		relied on the average of the mean and median results of the
20		Utility Proxy Group's PRPM to calculate cost of common equity
21		rates of 12.02 percent for the Utility Proxy Group.
22		
23	The	Total Market Approach Risk Premium Model (RPM)
24	Q.	Please explain the total market approach RPM.
25		
		D9-570

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1	A.	The total market approach RPM adds a prospective public
2		utility bond yield to an average of: (1) an equity risk
3		premium that is derived from a beta-adjusted total market
4		equity risk premium, (2) an equity risk premium based on the
5		S&P Utilities Index, and (3) an equity risk premium based on
6		authorized ROEs for natural gas distribution utilities.
7		
8	Q.	Please explain the basis of the expected bond yield of 5.88
9		percent, applicable to the Utility Proxy Group.
10		
11	A.	The first step in the total market approach RPM analysis is
12		to determine the expected bond yield. Because both ratemaking
13		and the cost of capital, including the common equity cost
14		rate, are prospective in nature, a prospective yield on
15		similarly rated long-term debt is essential. I relied on a
16		consensus forecast of about 50 economists of the expected
17		yield on Aaa-rated corporate bonds for the six calendar
18		quarters ending with the first calendar quarter of 2024, and
19		Blue Chip's long-term projections for 2024 to 2028 and 2029
20		to 2033. As shown on line 1, page 3 of Document No. 4, the
21		average expected yield on Moody's Aaa-rated corporate bonds
22		is 5.05 percent. In order to adjust the expected Aaa-rated
23		corporate bond yield to an equivalent A2-rated public utility
24		bond yield, I made an upward adjustment of 0.83 percent, which
25		represents a recent spread between Aaa-rated corporate bonds
		D0 571

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1		and A2-rated public utility bonds, as shown on line 2 and
2		explained in note 2, page 3 of Document No. 4. Adding that
3		recent 0.83 percent spread to the expected Aaa-rated
4		corporate bond yield of 5.05 percent results in an expected
5		A2-rated public utility bond yield of 5.88 percent, as shown
6		on page 3 of Document No. 4. This corresponds to the average
7		Moody's long-term issuer rating of the Utility Proxy Group of
8		A2.
9		
10	Q.	Please explain how the beta-derived equity risk premium is
11		determined.
12		
13	A.	The components of the beta-derived risk premium model are:
14		(1) an expected market equity risk premium over corporate
15		bonds, and (2) the beta. The derivation of the beta-derived
16		equity risk premium that I applied to the Utility Proxy Group
17		is shown on lines 1 through 9, on page 8 of Document No. 4.
18		The total beta-derived equity risk premium I applied is based
19		on an average of three historical market data-based equity
20		risk premiums, two Value Line-based equity risk premiums, and
21		a Bloomberg-based equity risk premium. Each of these is
22		described below.
23		
24	Q.	How did you derive a market equity risk premium based on long-
25		term historical data?

	ĺ	
1	A.	To derive an historical market equity risk premium, I used
2		the most recent holding period returns for the large company
3		common stocks from the <u>Stocks, Bonds, Bills, and Inflation</u>
4		(SBBI) Yearbook 2022 ("SBBI-2022") ²⁰ less the average
5		historical yield on Moody's Aaa/Aa-rated corporate bonds for
6		the period 1928 to 2021. Using holding period returns over
7		a very long time is appropriate because it is consistent with
8		the long-term investment horizon presumed by investing in a
9		going concern, i.e., a company expected to operate in
10		perpetuity.
11		
12		SBBI's long-term arithmetic mean monthly total return rate on
13		large company common stocks was 12.11 percent and the long-
14		term arithmetic mean monthly yield on Moody's Aaa/Aa-rated
15		corporate bonds was 5.98 percent, as explained in note 1,
16		page 9 of Document No. 4. As shown on line 1, page 8 of
17		Document No. 4, subtracting the mean monthly bond yield from
18		the total return on large company stocks results in a long-
19		term historical equity risk premium of 6.13 percent.
20		
21		I used the arithmetic mean monthly total return rates for the
22		large company stocks and yields (income returns) for the
23		Moody's Aaa/Aa-rated corporate bonds, because they are
24		appropriate for the purpose of estimating the cost of capital
25		as noted in <u>SBBI-2022</u> . ²¹ Using the arithmetic mean return

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	I	
1		rates and yields is appropriate because historical total
2		returns and equity risk premiums provide insight into the
3		variance and standard deviation of returns needed by
4		investors in estimating future risk when making a current
5		investment. If investors relied on the geometric mean of
6		historical equity risk premiums, they would have no insight
7		into the potential variance of future returns; the geometric
8		mean relates the change over many periods to a <u>constant</u> rate
9		of change, thereby obviating the year-to-year fluctuations,
10		or variance, which is critical to risk analysis.
11		
12	Q.	Please explain the derivation of the regression-based market
13		equity risk premium.
14		
15	A.	To derive the regression-based market equity risk premium of
16		7.26 percent shown on line 2, page 8 of Document No. 4, I
17		used the same monthly annualized total returns on large
18		company common stocks relative to the monthly annualized
19		yields on Moody's Aaa/Aa-rated corporate bonds as mentioned
20		above. I modeled the relationship between interest rates and
21		the market equity risk premium using the observed monthly
22		market equity risk premium as the dependent variable, and the
23		monthly yield on Moody's Aaa/Aa-rated corporate bonds as the
24		independent variable. I then used a linear Ordinary Least
25		Squares ("OLS") regression, in which the market equity risk
		D0 574

	I	
1		premium is expressed as a function of the Moody's Aaa/Aa-
2		rated corporate bond yield:
3		$RP = \alpha + \beta (R_{Aaa/Aa})$
4		Where:
5		RP = the market equity risk premium;
6		α = the regression intercept coefficient;
7		β = the regression slope coefficient; and
8		$R_{Aaa/Aa}$ = the Moody's Aaa/Aa-rated corporate bond
9		yield.
10		
11	Q.	Please explain the derivation of the PRPM equity risk premium.
12		
13	A.	I used the same PRPM approach described above to the PRPM
14		equity risk premium. The inputs to the model are the
15		historical monthly returns on large company common stocks
16		minus the monthly yields on Moody's Aaa/Aa-rated corporate
17		bonds during the period from January 1928 through December
18		2022. ²² Using the previously discussed GARCH method, the
19		projected equity risk premium is determined using Eviews $^{\odot}$
20		statistical software. The resulting PRPM predicted a market
21		equity risk premium of 9.76 percent (as shown on line 3, page
22		8 of Document No. 4).
23		
24	Q.	Please explain the derivation of a projected equity risk
25		premium based on Value Line data for your RPM analysis.
		42 D9-575
		<u> </u>

1	A.	As noted above, because both ratemaking and the cost of
2		capital are prospective, a prospective market equity risk
3		premium is needed. The derivation of the forecasted or
4		prospective market equity risk premium can be found in note
5		4, page 9 of Document No. 4. Consistent with my calculation
6		of the dividend yield component in my DCF analysis, this
7		prospective market equity risk premium is derived from an
8		average of the three- to five-year median market price
9		appreciation potential by Value Line for the 13 weeks ended
10		December 30, 2022, plus an average of the median estimated
11		dividend yield for the common stocks of the 1,700 firms
12		covered in Value Line (Standard Edition) (as explained in
13		detail in note 1, page 2 of Document No. 5).
14		
15		The average median expected price appreciation is 71 percent,

which translates to a 14.35 percent annual appreciation, and 16 when added to the average of Value Line's median expected 17 dividend yields of 2.23 percent, equates to a forecasted 18 annual total return rate on the market of 16.58 percent. 19 The forecasted Moody's Aaa-rated corporate bond yield of 5.05 20 percent is deducted from the total market return of 16.58 21 percent, resulting in an equity risk premium of 11.53 percent, 22 as shown on line 4, page 8 of Document No. 4. 23

24

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25

Q. Please explain the derivation of an equity risk premium based

³³⁹ D9-577

	1	
1		on the S&P 500 companies.
2		
3	A.	Using data from Value Line, I calculated an expected total
4		return on the S&P 500 companies using expected dividend yields
5		and long-term growth estimates as a proxy for capital
6		appreciation. The expected total return for the S&P 500 is
7		15.67 percent. Subtracting the prospective yield on Moody's
8		Aaa-rated corporate bonds of 5.05 percent results in a 10.62
9		percent projected equity risk premium.
10		
11	Q.	Please explain the derivation of an equity risk premium based
12		on Bloomberg data.
13		
14	A.	Using data from Bloomberg, I calculated an expected total
15		return on the S&P 500 using expected dividend yields and long-
16		term growth estimates as a proxy for capital appreciation
17		identical to the method described above. The expected total
18		return for the S&P 500 is 11.06 percent. Subtracting the
19		prospective yield on Moody's Aaa-rated corporate bonds of
20		5.05 percent results in a 6.01 percent projected equity risk
21		premium.
22		
23	Q.	What is your conclusion of a beta-derived equity risk premium
24		for use in your RPM analysis?
25		
		D9-577

A. I gave equal weight to all six equity risk premiums based on
 each source - historical, Value Line, and Bloomberg - in
 arriving at an 8.55 percent equity risk premium, as shown on
 page 8 of Document No. 4.

After calculating the average market equity risk premium of 6 8.55 percent, I adjusted it by beta to account for the risk 7 8 of the Utility Proxy Group. As discussed below, beta is a meaningful measure of prospective relative risk to the market 9 as a whole, and is a logical way to allocate a company's, or 10 proxy group's, share of the market's total equity risk premium 11 relative to corporate bond yields. As shown on page 1 of 12 Document No. 5, the average of the mean and median beta for 13 the Utility Proxy Group is 0.76. Multiplying this beta by 14 the market equity risk premium of 8.55 percent results in a 15 beta-adjusted equity risk premium for the Utility Proxy Group 16 of 6.50 percent. 17

18

5

19 20 Q. How did you derive the equity risk premium based on the S&P Utility Index and Moody's A2-rated public utility bonds?

21

A. I estimated three equity risk premiums based on S&P Utility
 Index holding period returns, and two equity risk premiums
 based on the expected returns of the S&P Utilities Index,
 using Value Line and Bloomberg data, respectively. Turning

first to the S&P Utility Index holding period returns, 1 Ι derived a long-term monthly arithmetic mean equity risk 2 premium between the S&P Utility Index total returns of 10.74 3 percent and monthly Moody's A2-rated public utility bond 4 yields of 6.46 percent from 1928 to 2021, to arrive at an 5 equity risk premium of 4.28 percent (as shown on line 1, page 6 12 of Document No. 4). I then used the same historical data 7 8 to derive an equity risk premium of 4.80 percent based on a regression of the monthly equity risk premiums. The final 9 S&P Utility Index holding period equity risk premium involved 10 applying the PRPM using the historical monthly equity risk 11 premiums from January 1928 to December 2022 to arrive at a 12 PRPM-derived equity risk premium of 5.56 percent for the S&P 13 Utility Index. 14

I then derived expected total returns on the S&P Utilities 16 Index of 9.50 percent and 9.20 percent using data from Value 17 Bloomberg, respectively, and subtracted Line and the 18 prospective Moody's A2-rated public utility bond yield of 19 5.88 percent (derived on line 3, page 3 of Document No. 4). 20 This resulted in equity risk premiums of 3.62 percent and 21 3.32 percent, respectively. As with the market equity risk 22 premiums, I averaged each risk premium based on each source 23 (i.e., historical, Value Line, and Bloomberg) to arrive at my 24 utility-specific equity risk premium of 4.32 percent, as 25

15

D9-579

	1	
1		shown on page 12 of Document No. 4.
2		
3	Q.	How did you derive an equity risk premium of 4.71 percent
4		based on authorized ROEs for gas utilities?
5		
6	Α.	The equity risk premium of 4.71 percent shown on page 13 of
7		Document No. 4 is the result of a regression analysis based
8		on regulatory awarded ROEs related to the yields on Moody's
9		A2-rated public utility bonds, and contains the graphical
10		results of a regression analysis of 818 rate cases for
11		distribution natural gas utilities, which were fully
12		litigated during the period from January 1, 1980 through
13		December 30, 2022. It shows the implicit equity risk premium
14		relative to the yields on A2-rated public utility bonds
15		immediately prior to the issuance of each regulatory
16		decision. It is readily discernible that there is an inverse
17		relationship between the yield on A2-rated public utility
18		bonds and equity risk premiums. In other words, as interest
19		rates decline, the equity risk premium rises and vice versa,
20		a result consistent with financial literature on the
21		subject. ²³ I used the regression results to estimate the
22		equity risk premium applicable to the projected yield on
23		Moody's A2-rated public utility bonds. Given the expected
24		A2-rated utility bond yield of 5.88 percent, it can be
25		calculated that the indicated equity risk premium applicable
		D9-580

1		to that bond yield is 4.71 percent.
2		
3	Q.	What is your conclusion of equity risk premium for use in
4		your total market approach RPM for the Utility Proxy Group?
5		
6	A.	The equity risk premium I applied to the Utility Proxy Group
7		is 5.18 percent, which is the average of the beta-adjusted
8		equity risk premium for the Utility Proxy Group, the S&P
9		Utilities Index, and the authorized return utility equity
10		risk premiums of 6.50 percent, 4.32 percent, and 4.71 percent,
11		respectively, as shown on page 7 of Document No. 4.
12		
13	Q.	What is the indicated RPM common equity cost rate based on
14		the total market approach?
15		
16	A.	As shown on line 5, page 3 of Document No. 4, I calculated a
17		common equity cost rate of 11.06 percent for the Utility Proxy
18		Group based on the total market approach RPM.
19		
20	Q.	What are the results of your application of the PRPM and the
21		total market approach RPM?
22		
23	A.	As shown on page 1 of Document No. 4, the indicated RPM-
24		derived common equity cost rate is 11.54 percent, which gives
25		equal weight to the results of the PRPM (12.02 percent) and
		D9-581

1		the adjusted-market approach (11.06 percent).
2		
3	c.	The Capital Asset Pricing Model
4	Q.	Please explain the theoretical basis of the CAPM.
5		
6	A.	CAPM theory defines risk as the co-variability of a security's
7		returns with the market's returns as measured by the beta
8		(β). A beta less than 1.0 indicates lower variability than
9		the market as a whole, while a beta greater than 1.0 indicates
10		greater variability than the market.
11		
12		The CAPM assumes that all non-market or unsystematic risk can
13		be eliminated through diversification. The risk that cannot
14		be eliminated through diversification is called market, or
15		systematic, risk. In addition, the CAPM presumes that
16		investors only require compensation for systematic risk,
17		which is the result of macroeconomic and other events that
18		affect the returns on all assets. The model is applied by
19		adding a risk-free rate of return to a market risk premium,
20		which is adjusted proportionately to reflect the systematic
21		risk of the individual security relative to the total market
22		as measured by the beta. The traditional CAPM model is
23		expressed as:
24		$R_s = R_f + \beta (R_m - R_f)$
		1

25 Where:

1	R_s = Return rate on the common stock;
2	R _f = Risk-free rate of return;
3	R_m = Return rate on the market as a whole; and
4	β = Adjusted beta (volatility of the security
5	relative to the market as a whole).
6	
7	Numerous tests of the CAPM have measured the extent to which
8	security returns and beta are related as predicted by the
9	CAPM, confirming its validity. The empirical CAPM ("ECAPM")
10	reflects the reality that while the results of these tests
11	support the notion that the beta is related to security
12	returns, the empirical Security Market Line ("SML") described
13	by the CAPM formula is not as steeply sloped as the predicted
14	SML. ²⁴
15	
16	The ECAPM reflects this empirical reality. Fama & French
17	clearly state regarding the figure in Document No. 11, below,
18	that "[t]he returns on the low beta portfolios are too high,
19	and the returns on the high beta portfolios are too low." 25
20	
21	In addition, Morin observes that while the results of these
22	tests support the notion that beta is related to security
23	returns, the empirical SML described by the CAPM formula is
24	not as steeply sloped as the predicted SML. Morin states:
25	With few exceptions, the empirical studies agree
	D0-583

D9-583

1	that low-beta securities earn returns somewhat
2	higher than the CAPM would predict, and high-beta
3	securities earn less than predicted. ²⁶
4	* * *
5	Therefore, the empirical evidence suggests that the
6	expected return on a security is related to its
7	risk by the following approximation:
8	$K = RF + x (RM - RF) + (1-x) \beta (RM - RF)$
9	where x is a fraction to be determined empirically.
10	The value of x that best explains the observed
11	relationship [is] Return = 0.0829 + 0.0520 β is
12	between 0.25 and 0.30. If $x = 0.25$, the equation
13	becomes:
14	K = RF + 0.25 (RM - RF) + 0.75 β (RM - RF) ²⁷
15	
16	Fama & French provide similar support for the ECAPM when they
17	state:
18	The early tests firmly reject the Sharpe-Lintner
19	version of the CAPM. There is a positive relation
20	between beta and average return, but it is too
21	'flat.' The regressions consistently find that the
22	intercept is greater than the average risk-free
23	rate and the coefficient on beta is less than the
24	average excess market return This is true in the
25	early tests as well as in more recent cross-
	D0-584

1		section regressions tests, like Fama and French
2		(1992). ²⁸
3		
4		Finally, Fama & French further note:
5		Confirming earlier evidence, the relation between
6		beta and average return `for the ten portfolios is
7		much flatter than the Sharpe-Linter CAPM predicts.
8		The returns on low beta portfolios are too high,
9		and the returns on the high beta portfolios are too
10		low. For example, the predicted return on the
11		portfolio with the lowest beta is 8.3 percent per
12		year; the actual return as 11.1 percent. The
13		predicted return on the portfolio with the t beta
14		is 16.8 percent per year; the actual is 13.7
15		percent. ²⁹
16		
17		Clearly, the justification from Morin and Fama & French, along
18		with their reviews of other academic research on the CAPM,
19		validate the use of the ECAPM. In view of theory and
20		practical research, I have applied both the traditional CAPM
21		and the ECAPM to the companies in the Utility Proxy Group and
22		averaged the results.
23		
24	Q.	What betas did you use in your CAPM analysis?
25		
		D9-585
		52

	1	
1	A.	For the betas in my CAPM analysis, I considered two sources:
2		Value Line and Bloomberg. While both of these services adjust
3		their calculated (or "raw") beta to reflect their tendency to
4		regress to the market mean of 1.00, Value Line calculates
5		their beta over a five-year period, while Bloomberg
6		calculates theirs over a two-year period.
7		
8	Q.	Please describe your selection of a risk-free rate of return.
9		
10	A.	As discussed previously, the risk-free rate adopted for both
11		applications of the CAPM is 3.91 percent. This risk-free
12		rate is based on the average of the Blue Chip consensus
13		forecast of the expected yields on 30-year U.S. Treasury bonds
14		for the six quarters ending with the first calendar quarter
15		of 2024, and long-term projections for the years 2024 to 2028
16		and 2029 to 2033.
17		
18	Q.	Please explain the estimation of the expected risk premium
19		for the market used in your CAPM analysis.
20		
21	A.	The basis of the market risk premium is explained in detail
22		in note 1 on page 2 of Document No. 5. As discussed above,
23		the market risk premium is derived from an average of three
24		historical data-based market risk premiums, two Value Line
25		data-based market risk premiums, and one Bloomberg data-based
		D9-586

market risk premium.

1

2

16

The long-term income return on U.S. Government securities of 3 was deducted from the 5.02 percent SBBI-2022 monthly 4 historical total market return of 12.37 percent, 5 which results in an historical market equity risk premium of 7.35 6 percent.³⁰ I applied a linear OLS regression to the monthly 7 8 annualized historical returns on the S&P 500 relative to historical yields on long-term U.S. Government securities 9 from SBBI-2022. That regression analysis yielded a market 10 equity risk premium of 8.71 percent. The PRPM market equity 11 risk premium is 10.86 percent and is derived using the PRPM 12 relative to the yields on long-term U.S. Treasury securities 13 from January 1926 through December 2022, as shown on page 2 14 of Document No. 5. 15

The Value Line-derived forecasted total market equity risk 17 premium is derived by deducting the forecasted risk-free rate 18 of 3.91 percent, discussed above, from the Value Line 19 20 projected total annual market return of 16.58 percent, resulting in a forecasted total market equity risk premium of 21 The S&P 500 projected market equity risk 12.67 percent. 22 premium using Value Line data is derived by subtracting the 23 projected risk-free rate of 3.91 percent from the projected 24 total return of the S&P 500 of 15.67 percent. The resulting 25

	1	
1		market equity risk premium is 11.76 percent.
2		
3		The S&P 500 projected market equity risk premium using
4		Bloomberg data is derived by subtracting the projected risk-
5		free rate of 3.91 percent from the projected total return of
6		the S&P 500 of 11.06 percent. The resulting market equity
7		risk premium is 7.15 percent. These six measures, when
8		averaged, result in an average total market equity risk
9		premium of 9.75 percent, as shown on page 2 of Document No.
10		5.
11		
12	Q.	What are the results of your application of the traditional
13		and empirical CAPM to the Utility Proxy Group?
14		
15	A.	As shown on page 1 of Document No. 5, the mean result of my
16		CAPM/ECAPM applied to the Utility Proxy Group is 11.54
17		percent, the median is 11.70 percent, and the average of the
18		two is 11.62 percent. Consistent with my reliance on the
19		average of mean and median DCF results discussed above, the
20		indicated common equity cost rate for each group using the
21		CAPM/ECAPM is 11.62 percent.
22		
23	D.	Common Equity Cost Rates for a Proxy Group of Domestic,
24		Non-Price Regulated Companies Based on the DCF, RPM, and
25		CAPM
		D9-588

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1	Q.	Why do you also consider a proxy group of domestic, non-price
2		regulated companies?
3		
4	A.	In the Hope and Bluefield cases, the U.S. Supreme Court did
5		not specify that comparable risk companies had to be
6		utilities. Since the purpose of rate regulation is to be a
7		substitute for marketplace competition, non-price regulated
8		firms operating in the competitive marketplace make an
9		excellent proxy if they are comparable in total risk to the
10		Utility Proxy Group being used to estimate the cost of common
11		equity. The selection of such domestic, non-price regulated
12		competitive firms theoretically and empirically results in a
13		proxy group which is comparable in total risk to the Utility
14		Proxy Group, since all of these companies compete for capital
15		in the exact same markets.
16		
17	Q.	How did you select domestic, non-price regulated companies
18		that are comparable in total risk to the Utility Proxy Group?
19		
20	A.	In order to select a proxy group of domestic, non-price
21		regulated companies similar in total risk to the Utility Proxy
22		Group, I relied on betas and related statistics derived from
23		Value Line regression analyses of weekly market prices over
24		the most recent 260 weeks (i.e., five years). As shown on
25		Document No. 6, these selection criteria resulted in a proxy
		56 D9-589

1	group of 39 domestic, non-price regulated firms comparable in
2	total risk to the Utility Proxy Group. Total risk is the sum
3	of non-diversifiable market risk and diversifiable company-
4	specific risks. The criteria used in selecting the domestic,
5	non-price regulated firms were:
6	• They must be covered by Value Line (Standard Edition);
7	• They must be domestic, non-price regulated companies,
8	<i>i.e.</i> , not utilities;
9	• Their unadjusted betas must lie within plus or minus two
10	standard deviations of the average unadjusted beta of the
11	Utility Proxy Group; and
12	• The residual standard errors of the Value Line
13	regressions, which gave rise to the unadjusted betas, must
14	lie within plus or minus two standard deviations of the
15	average residual standard error of the Utility Proxy
16	Group.
17	
18	Betas measure market, or systematic, risk, which is not
19	diversifiable. The residual standard errors of the
20	regressions measure each firm's company-specific,
21	diversifiable risk. Companies that have similar betas <u>and</u>
22	similar residual standard errors resulting from the same
23	regression analyses have similar total investment risk.
24	
25	${\tt Q}.$ Did you calculate the common equity cost rate using the DCF
	D9-590

model, the RPM, and the CAPM for the Non-Price Regulated Proxy 1 2 Group? 3 Yes. Because the DCF model, RPM, and CAPM have been applied Α. 4 in an identical manner as described above, I will not repeat 5 the details of the rationale and application of each model. 6 One exception is in the application of the RPM, where I did 7 8 not use public utility-specific equity risk premiums because these risk premiums are derived from utility-specific returns 9 thus, applicable to non-price 10 and are not regulated companies. Additionally, I did not apply the PRPM to the 11 individual non-price regulated companies due to a lack of 12 available data necessary to complete the analysis. 13 14 Page 2 of Document No. 7 derives the constant growth DCF model 15 common equity cost rate. As shown, the indicated common 16 equity cost rate, using the constant growth DCF for the Non-17 Price Regulated Proxy Group comparable in total risk to the 18 Utility Proxy Group, is 11.57 percent. 19 20 Pages 3 through 5 of Document No. 7 contain the data and 21 calculations that support the 13.30 percent RPM common equity 22 cost rates. As shown on line 1, page 3 of Document No. 7, 23 prospective yield on Moody's Baa2-rated 24 consensus the

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25

corporate bonds for the six quarters ending in the first

1		quarter of 2024, and for the years 2024 to 2028 and 2029 to
2		2033, is 6.05 percent. ³¹ Since the Non-Price Regulated Proxy
3		Group has an average Moody's long-term issuer rating of Baal,
4		a downward adjustment of 0.17 percent to the projected Baa2-
5		rated corporate bond yield is necessary to reflect a
6		difference in ratings which results in a projected Baal-rated
7		corporate bond yield of 5.88 percent.
8		
9		When beta-adjusted risk premiums of 7.42 percent (as derived
10		on page 5 of Document No. 7) relative to the Non-Price
11		Regulated Proxy Group is added to the adjusted prospective
12		Baal bond yield of 5.88 percent, the indicated RPM common
13		equity cost rate is 13.30 percent.
14		
15		Page 6 of Document No. 7 contains the inputs and calculations
16		that support my indicated CAPM/ECAPM common equity cost rates
17		of 12.32 percent.
18		
19	Q.	What is the cost rate of common equity based on the Non-Price
20		Regulated Proxy Group comparable in total risk to the Utility
21		Proxy Group?
22		
23	A.	As shown on page 1 of Document No. 7, the results of the
24		common equity models applied to the Non-Price Regulated Proxy
25		Group - which group is comparable in total risk to the Utility
		D9-592

	1	
1		Proxy Group - are as follows: 11.57 percent (DCF), 13.30
2		percent (RPM), and 12.32 percent (CAPM).
3		
4		The average of the mean and median of these models is 12.36
5		percent, which I used as the indicated common equity cost
6		rates for the Non-Price Regulated Proxy Group. To be
7		conservative, I do not consider the results of this analysis
8		directly in my determination of the reasonable range of ROEs
9		attributable to the Utility Proxy Group.
10		
11	VI.	RANGE OF COMMON EQUITY COST RATES BEFORE ADJUSTMENTS
12	Q.	What is the range of indicated common equity cost rates
13		produced by your ROE models?
13 14		produced by your ROE models?
	A.	produced by your ROE models? By applying multiple cost of common equity models to the
14	A.	
14 15	Α.	By applying multiple cost of common equity models to the
14 15 16	A.	By applying multiple cost of common equity models to the Utility Proxy Group and the Non-Price Regulated Proxy Group,
14 15 16 17	Α.	By applying multiple cost of common equity models to the Utility Proxy Group and the Non-Price Regulated Proxy Group, the indicated range of common equity cost rates attributable
14 15 16 17 18	A.	By applying multiple cost of common equity models to the Utility Proxy Group and the Non-Price Regulated Proxy Group, the indicated range of common equity cost rates attributable to the Utility Proxy Group before any relative risk
14 15 16 17 18 19	Α.	By applying multiple cost of common equity models to the Utility Proxy Group and the Non-Price Regulated Proxy Group, the indicated range of common equity cost rates attributable to the Utility Proxy Group before any relative risk adjustments is between 10.00 percent and 11.62 percent, as
14 15 16 17 18 19 20	Α.	By applying multiple cost of common equity models to the Utility Proxy Group and the Non-Price Regulated Proxy Group, the indicated range of common equity cost rates attributable to the Utility Proxy Group before any relative risk adjustments is between 10.00 percent and 11.62 percent, as shown on Document No. 1, page 2. I used multiple cost of
14 15 16 17 18 19 20 21	Α.	By applying multiple cost of common equity models to the Utility Proxy Group and the Non-Price Regulated Proxy Group, the indicated range of common equity cost rates attributable to the Utility Proxy Group before any relative risk adjustments is between 10.00 percent and 11.62 percent, as shown on Document No. 1, page 2. I used multiple cost of common equity models as primary tools in arriving at my
14 15 16 17 18 19 20 21 21 22	Α.	By applying multiple cost of common equity models to the Utility Proxy Group and the Non-Price Regulated Proxy Group, the indicated range of common equity cost rates attributable to the Utility Proxy Group before any relative risk adjustments is between 10.00 percent and 11.62 percent, as shown on Document No. 1, page 2. I used multiple cost of common equity models as primary tools in arriving at my recommended common equity cost rate, because no single model

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1		equity cost rate, with the prudence of using multiple cost of
2		common equity models supported in both the financial
3		literature and regulatory precedent.
4		As will be discussed below, Peoples has greater risk than the
5		Utility Proxy Group. Because of this, the indicated range of
6		model results based on the Utility Proxy Group must be
7		adjusted to reflect Peoples' greater relative risk.
8		
9	VII.	ADJUSTMENTS TO THE COMMON EQUITY COST RATE
10	Q.	What company-specific business risks did you consider for
11		your relative risk analysis?
12		
13	A.	As detailed below, I have considered flotation costs. I also
14		considered Peoples' smaller relative size, as well as high
15		level of customer growth, overall performance, and capital
16		investment plans relative to the companies in the Utility
17		Proxy Group.
18		
19	A.	Flotation Costs
20	Q.	What are flotation costs?
21		
22	A.	Flotation costs are those costs associated with the sale of
23		new issuances of common stock. They include market pressure
24		and the mandatory unavoidable costs of issuance (e.g.,
25		underwriting fees and out-of-pocket costs for printing,
		D9-594
		61 D9-394

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1		legal, registration, etc.). For every dollar raised through
2		debt or equity offerings, the company receives less than one
3		full dollar in financing.
4		
5	Q.	Has the Commission supported the use of flotation cost
6		adjustments in past rate proceedings?
7		
8	A.	Yes. In Peoples' 2008 rate proceedings, the Commission did
9		not make a specific adjustment for flotation costs but
10		recognized that "[t]his Commission has traditionally
11		recognized a reasonable adjustment for flotation costs in the
12		determination of the investor-required ROE." 32
13		
14	Q.	Why is it important to recognize flotation costs in the
15		allowed common equity cost rate?
16		
17	A.	It is important because there is no other mechanism in the
18		ratemaking paradigm through which such costs can be
19		recognized and recovered. Because these costs are real,
20		necessary, and legitimate, recovery of these costs should be
21		permitted. As noted by Morin:
22		The costs of issuing these securities are just as
23		real as operating and maintenance expenses or costs
24		incurred to build utility plants, and fair
25		regulatory treatment must permit the recovery of
		D9-595

³⁵⁸ D9-596

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1		these costs
2		The simple fact of the matter is that common equity
3		capital is not free[Flotation costs] must be
4		recovered through a rate of return adjustment. ³³
5		
6	Q.	Should flotation costs be recognized whether or not there is
7		a stock issuance of additional shares during the test year?
8		
9	A.	Yes. As noted above, there is no mechanism to recapture such
10		costs in the ratemaking paradigm other than an adjustment to
11		the allowed common equity cost rate. Flotation costs are
12		charged to capital accounts and are not expensed on a
13		utility's income statement. As such, flotation costs are
14		analogous to capital investments, albeit negative, reflected
15		on the balance sheet. Recovery of capital investments relates
16		to the expected useful lives of the investment. Since common
17		equity has a very long and indefinite life (assumed to be
18		infinity in the standard regulatory DCF model), flotation
19		costs should be recovered through an adjustment to common
20		equity cost rate, even when there has not been an issuance
21		during the test year, or in the absence of an expected
22		imminent issuance of additional shares of common stock.
23		
24		Historical flotation costs are a permanent loss of investment
25		to the utility and should be accounted for. When any company,

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1		including a utility, issues common stock, flotation costs are
2		incurred for legal, accounting, printing fees and the like.
3		For each dollar of issuing market price, a small percentage
4		is expensed and is permanently unavailable for investment in
5		utility rate base. Since these expenses are charged to
6		capital accounts and not expensed on the income statement,
7		the only way to restore the full value of that dollar of
8		issuing price with an assumed investor required return of
9		10.00 percent is for the net investment, \$0.95, to earn more
10		than 10.00 percent to net back to the investor a fair return
11		on that dollar. In other words, if a company issues stock at
12		\$1.00 with 5.00 percent in flotation costs, it will net \$0.95
13		in investment. Assuming the investor in that stock requires
14		a 10.00 percent return on his or her invested \$1.00 (i.e., a
15		return of \$0.10), the company needs to earn approximately
16		10.5 percent on its invested \$0.95 to receive a \$0.10 return.
17		
18	Q.	Do the common equity cost rate models you have used already
19		reflect investors' anticipation of flotation costs?
20		
21	A.	No. All of these models assume no transaction costs. The
22		literature is quite clear that these costs are not reflected
23		in the market prices paid for common stocks. For example,
24		Brigham and Daves confirm this and provide the methodology
25		utilized to calculate the flotation $adjustment.^{34}$ In
		D9-597

1		addition, Morin confirms the need for such an adjustment even
2		when no new equity issuance is imminent. ³⁵ Consequently, it
3		is proper to include a flotation cost adjustment when using
4		cost of common equity models to estimate the common equity
5		cost rate.
6		
7	Q.	How did you calculate the flotation cost allowance?
8		
9	A.	I modified the DCF calculation to provide a dividend yield
10		that would reimburse investors for issuance costs in
11		accordance with the method cited in literature by Brigham and
12		Daves, as well as by Morin. The flotation cost adjustment
13		recognizes the actual costs of issuing equity that were
14		incurred by Emera in its equity issuances since 2016 when it
15		acquired Peoples. Based on the issuance costs shown on
16		Document No. 8, an adjustment of 0.12 percent is required to
17		reflect the flotation costs applicable to the Utility Proxy
18		Group.
19		
20	в.	Business Risk Adjustment
21	Q.	Does Peoples' smaller size relative to the Utility Proxy Group
22		companies increase its business risk?
23		
24	A.	Yes. Peoples' smaller size relative to the Utility Proxy
25		Group companies indicates greater relative business risk for
		D9-598
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the company because, all else being equal, size has a material bearing on risk.

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Size affects business risk because smaller companies generally are less able to cope with significant events that affect sales, revenues, and earnings. For example, smaller companies face more risk exposure to business cycles and economic conditions, both nationally and locally. Additionally, the loss of revenues from a few larger customers would have a greater effect on a small company than on a bigger company with a larger, more diverse, customer base.

As further evidence that smaller firms are riskier, investors 13 14 generally demand greater returns from smaller firms to 15 compensate for less marketability and liquidity of their securities. Kroll's Cost of Capital Navigator: U.S. Cost of 16 Capital Module ("Kroll") discusses the nature of the small-17 size phenomenon, providing an indication of the magnitude of 18 the size premium based on several measures of size. 19 In 20 discussing "Size as a Predictor of Equity Returns," Kroll states: 21

The size effect is based on the empirical observation that companies of smaller size are associated with greater risk and, therefore, have greater cost of capital [sic]. The "size" of a

1	company is one of the most important risk elements
2	to consider when developing cost of equity capital
3	estimates for use in valuing a business simply
4	because size has been shown to be a predictor of
5	equity returns. In other words, there is a
6	significant (negative) relationship between size
7	and historical equity returns - as size decreases,
8	returns tend to increase, and vice versa. [Footnote
9	omitted] [Emphasis in original]. ³⁶
10	
11	Furthermore, in The Capital Asset Pricing Model: Theory and
12	Evidence, Fama & French note size is indeed a risk factor
13	which must be reflected when estimating the cost of common
14	equity. On page 38, they note:
15	\ldots . the higher average returns on small stocks
16	and high book-to-market stocks reflect unidentified
17	state variables that produce undiversifiable risks
18	(covariances) in returns not captured in the market
19	return and are priced separately from market
20	betas. ³⁷
21	
22	Based on this evidence, Fama & French proposed their three-
23	factor model which includes a size variable in recognition of
24	the effect size has on the cost of common equity.
25	
	D9-600

Also, it is a basic financial principle that the use of funds invested, and not the source of funds, is what gives rise to the risk of any investment.³⁸ Eugene Brigham, a well-known authority, states:

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number of researchers have observed 5 А that portfolios of small-firms (sic) have earned 6 consistently higher average returns than those of 7 8 large-firm stocks; this is called the "small-firm effect." On the surface, it would seem to be 9 advantageous to the small firms to provide average 10 returns in a stock market that are higher than those 11 of larger firms. In reality, it is bad news for 12 the small firm; what the small-firm effect means is 13 14 that the capital market demands higher returns on stocks of small firms than on otherwise similar 15 stocks of the large firms. [Emphasis added]³⁹ 16

Consistent with the financial principle of risk and return 18 discussed above, increased relative risk due to small size 19 must be considered in the allowed rate of return on common 20 Therefore, the Commission's authorization of a cost equity. 21 rate of common equity in this proceeding must appropriately 22 23 reflect the unique risks of Peoples, including its smaller relative size, which is justified and supported above by 24 evidence in the financial literature. 25

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	1	
1	Q.	Is there a way to quantify a relative risk adjustment due to
2		Peoples' smaller size relative to the Utility Proxy Group?
3		
4	A.	Yes. Peoples has greater relative risk than the average
5		utility in the Utility Proxy Group because of its smaller
6		size compared with the utilities in those groups, as measured
7		by an estimated market capitalization of common equity for
8		the company.
9		
10		As shown in page 1 of Document No. 9, Peoples' estimated
11		market capitalization is approximately \$2.180 billion,
12		compared with the market capitalization of the average
13		companies in the Utility Proxy Group of approximately \$6.634
14		billion as of December 30, 2022. The average companies in
15		the Utility Proxy Group have a market capitalization of three
16		times the size of Peoples' estimated market capitalization.
17		As a proxy for the business risk adjustment, I used the $\underline{ ext{SBBI}}$
18		2022 size study. The determination is based on the size
19		premiums for portfolios of New York Stock Exchange, American
20		Stock Exchange, and NASDAQ listed companies ranked by deciles
21		for the 1926 to 2021 period. The average size premium for
22		the Utility Proxy Group with a market capitalization of
23		approximately \$6.634 billion falls in the 4^{th} decile, while
24		the company's estimated market capitalizations of \$2.180
25		billion places it in the 6^{th} decile. The size premium spread

1		between the 4^{th} decile and the 6^{th} decile is 0.62 percent.
2		
3	Q.	Since Peoples is an indirectly owned operating subsidiary of
4		Emera, why is the size of the total company not more
5		appropriate to use when determining a business risk
6		adjustment?
7		
8	A.	The return derived in this proceeding will not apply to
9		Emera's operations as a whole, but only to Peoples. Emera is
10		the sum of its constituent parts, including those constituent
11		parts' ROEs. Potential investors in Emera are aware that it
12		is a combination of operations in each state, and that each
13		state's operations experience the operating risks specific to
14		their jurisdiction. The market's expectation of Emera's
15		return is commensurate with the realities of Emera's
16		composite operations in each of the states in which it
17		operates.
18		
19	Q.	Have you considered any other company-specific issues in
20		determining the company-specific business risk adjustment?
21		
22	A.	Yes, I have. In addition to the company's smaller relative
23		size, I have also considered the company's high level of
24		customer growth, overall performance, and capital expenditure
25		plans compared to the Utility Proxy Group companies in the
		D9-603
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	1	
1		company-specific business risk adjustment.
2		
3	Q.	Please describe the company's customer growth.
4		
5	A.	As discussed in the direct testimony of Peoples witness Eric
6		Fox, the company has experienced strong customer growth over
7		the last five years, with average residential customer growth
8		of 4.3 percent and average commercial customer growth of 1.9
9		percent. As discussed by witness Fox, Peoples will continue
10		to experience relatively strong growth over the next five
11		years driven by projected household and economic growth. The
12		increased customer growth in the company's service territory
13		necessitates increased and accelerated capital investment.
14		
15	Q.	Please discuss the company's high level of overall
16		performance.
17		
18	A.	Based upon the metrics of J.D. Power, which are the industry
19		standard for reliability and service, Peoples is a
20		consistently high performing gas utility. Peoples received
21		the first, second, or third highest J.D. Power Customer
22		Satisfaction Index Score amongst their entire industry for
23		both their Residential and Business Gas Customer groups every
24		year for the past 10 years. 40 The J.D. Power Gas Customer
25		Satisfaction Score is a comprehensive analysis of how gas
		D9-604

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1		utilities are performing from a customer standpoint. For 10
2		consecutive years, Residential Customers have given the
3		company the top J.D. Power Customer Satisfaction score
4		amongst mid-size natural gas utilities in the south region. 41
5		The company's industry leading satisfaction scores are based
6		upon excellence in areas such as Safety & Reliability, Price,
7		Billing & Payment, Communication, Customer Care and Corporate
8		Citizenship. ⁴²
9		
10	Q.	Please briefly summarize the company's capital investment
11		plans.
12		
13	A.	Peoples currently plans to invest over \$1.0 billion of capital
14		from January 1, 2022 to December 31, 2024, 43 which represents
15		approximately 60.00 percent of its 2021 year-end net utility
16		plant.44 That amount includes investments in its distribution
17		facilities, which are necessary to support growth and to
18		maintain safe, sufficient, and reliable service. As
19		discussed by witnesses McOnie and Parsons, the company will
20		require continued access to the capital markets, at
21		reasonable terms, to finance its capital spending plan. As
22		Peoples moves forward with its capital spending plan, timely
23		recovery of its capital costs is critical to mitigate the
24		delay of capital recovery and execute its capital spending
25		program.

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1	Q.	Do substantial capital expenditures directly relate to a
2		utility being allowed the opportunity to earn a return
3		adequate to attract capital at reasonable terms?
4		
5	A.	Yes, they do. The allowed ROE should enable the subject
6		utility to finance capital expenditures and working capital
7		requirements at reasonable rates, and to maintain its
8		financial integrity in a variety of economic and capital
9		market conditions. As discussed throughout my direct
10		testimony, a return adequate to attract capital at reasonable
11		terms enables the utility to provide safe, reliable service
12		while maintaining its financial soundness. To the extent a
13		utility is provided the opportunity to earn its market-based
14		cost of capital, neither customers nor shareholders should be
15		disadvantaged. These requirements are of particular
16		importance to a utility when it is engaged in a substantial
17		capital expenditure program.
18		

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The ratemaking process is predicated on the principle that, 19 for investors and companies to commit the capital needed to 20 provide safe and reliable utility services, the utility must 21 have the opportunity to recover the return of, and the market-22 required return on, invested capital. Regulatory commissions 23 recognize that since utility operations capital 24 are intensive, regulatory decisions should enable the utility to 25

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attract capital at reasonable terms; doing so balances the 1 long-term interests of the utility and its ratepayers. 2 3 Further, the financial community carefully monitors 4 the and expected financial conditions of 5 current utility companies, as well as the regulatory environment in which 6 those companies operate. In that respect, the regulatory 7 8 environment is one of the most important factors considered in both debt and equity investors' assessments of risk. That 9 is especially important during periods in which the utility 10 expects to make significant capital investments 11 and, therefore, may require access to capital markets. 12 13 Do credit rating agencies recognize risks associated with 14 ο. 15 increased capital expenditures? 16 From a credit perspective, the additional 17 Α. Yes, they do. pressure on cash flows associated with high levels of capital 18 expenditures exerts corresponding pressure on credit metrics 19 20 and, therefore, credit ratings. S&P has noted several longterm challenges for utilities' financial health including 21 heavy construction programs to address demand growth, 22 23 declining capacity margins, aging infrastructure, and regulatory responsiveness to mounting requests for rate 24 increases.⁴⁵ More recently, S&P noted: 25

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	1	
1		We assume that capital spending will remain a focus
2		of most utility managements and strain credit
3		metrics. It provides growth when sales are
4		diminished by ongoing demanded efficiency from
5		regulators and other trends, and it is welcomed by
6		policymakers that appreciate the economic stimulus
7		and the benefits of safer, more reliable service.
8		The speed with which the regulatory process turns
9		the new spending into higher rates to begin to pay
10		for it is an important factor in our assumptions
11		and the forecast. Any extended lag between spending
12		and recovery can exacerbate the negative effect on
13		credit metrics and therefore ratings.46
14		
15		The rating agency views noted above also are consistent with
16		certain observations discussed in my direct testimony: (1)
17		the benefits of maintaining a strong financial profile are
18		significant when capital access is required and become
19		particularly acute during periods of market instability; and
20		(2) the Commission's decision in this proceeding will have a
21		direct bearing on the company's credit profile and its ability
22		to access the capital needed to fund its investments.
23		
24	Q.	How do the company's expected capital expenditures compare to
25		the Utility Proxy Group?

	1	
1	A.	To reasonably make that comparison, I calculated the ratio of
2		expected capital expenditures to net plant for each company
3		in the Utility Proxy Group. I performed that calculation using
4		Peoples' total projected capital expenditures from January 1,
5		2022 to December 31, 2024 relative to its net plant for the
6		year ended December 31, 2021. As shown in Document No. 10,
7		Peoples has the highest ratio of projected capital
8		expenditures to net plant relative to the Utility Proxy Group,
9		approximately 21.00 percent higher than the Utility Proxy
10		Group median.
11		
12	Q.	What are your conclusions regarding the effect of Peoples'
13		capital investment plans on its risk profile and cost of
14		capital?
15		
16	A.	It is clear that Peoples' capital investment plans relative
17		to net plant is larger than the median of the Utility Proxy
18		Group companies. It also is clear that equity investors and
19		credit rating agencies recognize the additional risks
20		associated with substantial capital expenditures.
21		
22	Q.	What is your conclusion regarding an adjustment for the
23		company's specific business risks?
24		
25	A.	Based on my analysis, a business risk adjustment of 0.20
		D9-609

	1	
1		percent is appropriate for Peoples to account for the
2		company's smaller size, as well as strong customer growth,
3		high level of performance, and capital investment plans,
4		relative to the Utility Proxy Group. Even though my analysis
5		of the company's smaller size relative to the Utility Proxy
6		Group indicates an upward size adjustment of 0.62 percent, I
7		conservatively applied an overall business risk adjustment of
8		0.20 percent to the results as shown on page 2 of Document
9		No. 1.
10		
11	Q.	Please summarize your adjustments to the indicated ranges of
12		ROEs applicable to the Utility Proxy Group.
13		
14	A.	The summary of my adjustments for the company-specific
15		business risks and flotation costs to the indicated ranges of
16		ROEs applicable to the Utility Proxy Group are summarized in
17		page 2 of Document No. 1. As shown, the range of ROEs
18		applicable to the company is between 10.32 percent and 11.70
19		percent.
20		
21	VIII	. <u>CONCLUSION</u>
22	Q.	What is your recommended ROE for Peoples?
23		
24	A.	Given the indicated ROE range applicable to the company of
25		10.32 percent to 11.70 percent, I conclude that an appropriate
		D9-610

<pre>1 ROE for the company is 11.00 percent. 2 3 Q. In your opinion, is your proposed ROE of 11.00 percent fair 4 and reasonable to Peoples and its customers? 5 6 A. Yes, it is.</pre>
Q. In your opinion, is your proposed ROE of 11.00 percent fair and reasonable to Peoples and its customers?
4 and reasonable to Peoples and its customers? 5
5
6 A. Yes, it is.
7
8 Q. In your opinion, is Peoples' proposed capital structure
9 consisting of 40.48 percent long-term debt and 54.68 percent
10 common equity fair and reasonable?
11
12 A. Yes, it is.
13
14 Q. Does this conclude your prepared direct testimony?
15
16 A. Yes.
17
18
19
20
21
22
23
24
25
D9-611

1	(Whereupon, prefiled rebuttal testimony of
2	Dylan D'Ascendis was inserted.)
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BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 20230023-GU

PETITION FOR RATE INCREASE BY PEOPLES GAS SYSTEM, INC.

REBUTTAL TESTIMONY AND EXHIBIT

OF

DYLAN W. D'ASCENDIS

ON BEHALF OF PEOPLES GAS SYSTEM, INC.



³⁷⁶ E5-106

DOCKET NO. 20230023-GU WITNESS: D'ASCENDIS

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1		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
2		REBUTTAL TESTIMONY
3		OF
4		DYLAN W. D'ASCENDIS
5		ON BEHALF OF PEOPLES GAS SYSTEM, INC.
6		
7	I.	INTRODUCTION
8	Q.	Please state your name, address, occupation, and employer.
9		
10	A.	My name is Dylan W. D'Ascendis. My business address is 3000
11		Atrium Way, Suite 200, Mount Laurel, New Jersey 08054. I am
12		employed by ScottMadden, Inc. as a Partner.
13		
14	Q.	Are you the same Dylan W. D'Ascendis who filed direct
15		testimony in this proceeding?
16		
17	A.	Yes, I am.
18		
19	II.	PURPOSE, SUMMARY AND OVERVIEW
20	Q.	What is the purpose of your rebuttal testimony?
21		
22	A.	The purpose of my rebuttal testimony is two-fold. First, due
23		to the passage of time since the analysis in my direct
24		testimony, I have updated my return on equity ("ROE") analyses
25		to reflect more recent market data. Second, I respond to the E5-106

	1		
1		direct testimony of	f witness David J. Garrett, on behalf of
2		the Florida Office	e of Public Counsel ("OPC"), concerning
3		Peoples Gas System,	<pre>Inc.'s ("Peoples" or the "Company") ROE</pre>
4		on its Florida rate	base.
5			
6	Q.	Have you prepared	an exhibit supporting your rebuttal
7		testimony?	
8			
9	A.	Yes. I have prepar	ed Exhibit No. DWD-2, comprising Document
10		Nos. 1 through 17,	which have been prepared by me or under my
11		direction.	
12		Document No. 1	Updated Cost of Common Equity Results
13		Document No. 2	Financial Profile of the Utility Proxy
14			Group
15		Document No. 3	Application of the Discounted Cash Flow
16			Model
17		Document No. 4	Application of the Risk Premium Model
18		Document No. 5	Application of the Capital Asset Pricing
19			Model
20		Document No. 6	Basis of Selection for the Non-Price
21			Regulated Companies Comparable in Total
22			Risk to the Utility Proxy Group
23		Document No. 7	Application of Cost of Common Equity
24			Models to the Non-Price Regulated Proxy
25			Group
	ļ		E5-107

³⁷⁸ E5-108

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	Document No. 8	Derivation of the Flotation Cost
		Adjustment to the Cost of Common Equity
	Document No. 9	Derivation of the Indicated Size Premium
		for Peoples Relative to the Utility Proxy
		Group
	Document No. 10	Comparison of Projected Capital
		Expenditures Relative to Net Plant
	Document No. 11	Relationship Between Investor Required
		Returns on the Market and Authorized ROEs
		for Electric and Natural Gas Utilities,
		1990 - 2022
	Document No. 12	Gross Domestic Product ("GDP") by
		Industry, 1947 - 2022
	Document No. 13	Evaluation of Implied Risk Premium
		Approach
	Document No. 14	Company Size and Volatility of Returns
	Document No. 15	Flotation Cost Illustration
	Document No. 16	Frequency Distribution of Observed
		Market Risk Premiums ("MRP"), 1926 - 2022
	Document No. 17	Referenced Endnotes for the Rebuttal
		Testimony of Dylan W. D'Ascendis
Q.	How is the remainde	r of your rebuttal testimony organized?
A.	The remainder of	my rebuttal testimony is organized as
		3 E5-108
		Document No. 9 Document No. 10 Document No. 11 Document No. 12 Document No. 13 Document No. 14 Document No. 15 Document No. 15 Document No. 16 Document No. 17 Q. How is the remainde

1		follows:
2		 <u>Section III</u> - Provides my updated analyses;
3		• <u>Section IV</u> - Contains my response to OPC witness Garrett;
4		and
5		• Section V - Summarizes my recommendations and conclusions.
6		
7	Q.	Please summarize the key issues addressed in your rebuttal
8		testimony.
9		
10	A.	First, I discuss my updated analyses for the Company using
11		market data as of June 16, 2023, which continue to support my
12		initial ROE recommendation.
13		
14		Next, I respond to witness Garrett's direct testimony
15		concerning the appropriate ROE for Peoples. As discussed in
16		Section IV, witness Garrett's shortcomings in his analyses
17		include:
18		1. How far disconnected his recommended ROE is from his own
19		analytical results and observable and relevant data;
20		2. His misinterpretation of the relationship between
21		various returns referenced in an ROE analysis;
22		3. His misapplication of the Discounted Cash Flow ("DCF")
23		model;
24		4. His misapplication of the Capital Asset Pricing Model
25		("CAPM"); and
		E5-109

	1	
1		5. His failure to consider flotation costs and other
2		Company-specific risk factors in his ROE recommendation.
3		
4		Finally, my rebuttal testimony also addresses witness
5		Garrett's unfounded critiques of my direct testimony.
6		
7	Q.	Please summarize your recommendations and conclusions.
8		
9	A.	My updated analytical results indicate the reasonable range
10		of ROEs applicable to Peoples is between 9.89 percent and
11		12.03 percent. From my updated analyses, I maintain my
12		initial recommendation that the Florida Public Service
13		Commission (the "Commission") authorize Peoples the
14		opportunity to earn an ROE of 11.00 percent on its
15		jurisdictional rate base, based on its proposed ratemaking
16		capital structure. In view of current markets and the results
17		of my ROE models, the 9.00 percent ROE proffered by witness
18		Garrett is woefully inadequate.
19		
20	III.	UPDATED ANALYSES
21	Q.	Have you updated your analyses to reflect current market
22		conditions?
23		
24	A.	Yes, I have. As noted above, given the passage of time since
25		my direct testimony analyses (data as of December 30, 2022),
		E5-110
		5

	1	
1		I have updated my analyses using data as of June 16, 2023.
2		
3	Q.	Have you applied any of your ROE models differently in your
4		updated analyses?
5		
6	A.	No, I have not.
7		
8	Q.	What are the results of your updated analyses?
9		
10	A.	Using market data available as of June 16, 2023, my updated
11		analytical results are summarized in Document No. 1 of Exhibit
12		No. DWD-2. As presented on page 2 of Document No. 1, the
13		updated indicated range of common equity cost rates for the
14		Company is between 9.89 percent and 12.03 percent. Since my
15		original recommended ROE of 11.00 percent is within my updated
16		recommended reasonable range of ROEs applicable to Peoples,
17		I maintain my ROE recommendation of 11.00 percent for the
18		Company for ratemaking purposes.
19		
20	Q.	Did you consider the indicated ROE from your Non-Price
21		Regulated Proxy Group in the determination of your
22		recommended ROE in this proceeding?
23		
24	A.	No, I did not. As stated on page 6 of my direct testimony,
25		"I did not consider the ROE model results applied to my Non-
		E5-111
		6

	1	
1		Price Regulated Proxy Group in the determination of my
2		recommended range." Because I did not rely on the results of
3		the Non-Price Regulated Proxy Group in my recommendation, and
4		in an effort to limit the scope of this rebuttal testimony,
5		I will not respond to any critiques of my Non-Price Regulated
6		Proxy Group even though I maintain the applicability of the
7		results of the model to the cost of common equity for
8		utilities.
9		
10	IV.	RESPONSE TO WITNESS. GARRETT
11	Q.	Please provide a brief summary of witness Garrett's analyses
12		and recommendations regarding Peoples' ROE.
13		
14	A.	Witness Garrett believes an ROE of 9.00 percent is reasonable
15		if the Commission approves his recommended imputed debt ratio
16		of 51.00 percent for Peoples; otherwise, he suggests the
17		Company's cost of equity is only 8.10 percent if the
18		Commission approves Peoples' proposed debt ratio of
19		approximately 45.00 percent. 1 Witness Garrett estimates the
20		ROE using the sustainable growth DCF model (7.50 percent) and
21		the CAPM (8.50 percent). ²
22		
23	Q.	In what key areas are witness Garrett's analyses and
24		recommendations incorrect or unsupported?
25		
		E5-112

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1	A.	There are several areas in which witness Garrett's analyses
2		and conclusions are incorrect or unsupported, including: (1)
3		his recommended ROEs which are detached from his analytical
4		results; (2) his incorrect observation that authorized ROEs
5		have exceeded the investor-required return on the market for
6		30 years; (3) his misapplication of the DCF model; (4) his
7		misapplication of the CAPM; and (5) his failure to consider
8		flotation costs and other Company-specific risk factors in
9		his recommended ROE. Those points are discussed in turn,
10		below.
11		
12	A.	Recommended Return on Equity
13	Q.	Are witness Garrett's analytical results and recommendation
14		reasonable measures of Peoples' ROE?
15		
16	A.	No, they are not. Witness Garrett's recommended ROE of 9.00
17		percent is fundamentally disconnected from his own analyses
18		and conclusions. Throughout his testimony, witness Garrett
19		believes his analytical results indicate that the ROE range
20		for Peoples is between 7.50 and 8.50 percent, 3 which is
21		incorrect. His analytical model results of 8.50 percent and
22		lower are far removed from observable and relevant data, 4
23		including the 2022 aggregated average authorized ROE of 9.53
24		percent for gas utilities provided in his testimony. ⁵ While
25		I appreciate the need for judgment in developing ROE

	1	
1		recommendations, I believe there should be some empirical
2		basis for them. Since witness Garrett's 9.00 percent
3		recommendation is removed from his analytical model results,
4		we cannot assess the basis of his ultimate recommendation,
5		empirical or otherwise.
6		
7	Q.	Has witness Garrett also disregarded the results of his
8		analytical models in determining his recommended ROE in other
9		proceedings?
10		
11	A.	Yes, he has done so in several proceedings. For example, in
12		Docket No. 20200051-GU before the Commission, witness Garrett
13		noted that his analysis indicates the "true" ROE for the
14		Company to be 6.90 percent, yet he recommended a 9.50 percent
15		ROE. ⁶ Given that witness Garrett's analyses point to a lower
16		return than what he ultimately recommended, it is unclear the
17		extent to which witness Garrett relies on the analysis he
18		presents as they clearly have no correlation with his
19		recommendation.
20		
21	Q.	Do you agree with witness Garrett's recommendation to the
22		Commission regarding the use of "gradualism" in determining
23		the appropriate ROE for the Company?
24		
25	A.	No, I do not. I believe witness Garrett argues that the
		E5-114
		9

	1	
1		Commission should apply the ratemaking concept of
2		"gradualism" to move Peoples' ROE higher than his purported
3		ROE based on his analytical results because he recognizes
4		that his ROE, if implemented, would be confiscatory and
5		illegal and he needs a different policy argument to avoid
6		that result. ⁷ The role of ROE witnesses is to testify
7		regarding the return required by equity investors, i.e., the
8		ROE at a given point in time, and therefore, the application
9		of "gradualism" is inappropriate.
10		
11	Q.	Please summarize witness Garrett's views on the relationship
12		between the cost of equity, the investor-required ROE, and
13		the awarded ROE for regulated utilities.
14		
15	A.	Witness Garrett initially correctly points out that the
16		required return from the investor's perspective is synonymous
17		with the cost of capital from the utility's perspective, but
18		then states that he believes the above specified returns are
19		different, yet related concepts. ⁸ Witness Garrett's views
20		regarding the relationship between allowed and investor-
21		required ROEs for utilities change throughout the course of
22		his testimony.
23		
24		For example, on page 15 of his testimony, witness Garrett
25		discusses the equivalency of the cost of equity and the

1

awarded ROE, stating:

2	The Hope Court makes it clear that the allowed
3	return should be based on the actual cost of
4	capital. Under the rate base rate of return model,
5	a utility should be allowed to recover all its
6	reasonable expenses, its capital investments
7	through depreciation, and a return on its capital
8	investments sufficient to satisfy the required
9	return of its investors. The "required return" from
10	the investors' perspective is synonymous with the
11	"cost of capital" from the utility's perspective.
12	Scholars agree that the allowed rate of return
13	should be based on the actual cost of capital:
14	Since by definition the cost of capital of a
15	regulated firm represents precisely the
16	expected return that investors could
17	anticipate from other investments while
18	bearing no more or less risk, and since
19	investors will not provide capital unless the
20	investment is expected to yield its
21	opportunity cost of capital, the
22	correspondence of the definition of the cost
23	of capital with the court's definition of
24	legally required earnings appears clear.9,10

25

Then, on page 16 of his testimony, witness Garrett contradicts his above testimony by stating that awarded ROEs and cost of equity (i.e., investor-required returns) are very different concepts because of the regulatory process that may be influenced by factors other than objective market drivers.¹¹

Witness Garrett continues to change his position regarding 7 8 the equivalency, or non-equivalency, of the allowed and required ROE, sometimes in consecutive sentences. For 9 example, on page 16 of his testimony, witness Garrett states 10 that "The two concepts [allowed and required ROEs] are related 11 in that the legal and technical standards encompassing this 12 issue require that the awarded return reflect the true cost 13 of capital. On the other hand, the two concepts are different 14 in that the legal standard do not mandate that awarded returns 15 exactly match the cost of capital."12 16

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18 Q. What is your reaction to witness Garrett's views on the 19 relationship between allowed and required ROEs for utility 20 companies?

21

A. Witness Garrett is unnecessarily complicating a simple
 relationship. For regulated utilities, the ROE equals the
 investor-required ROE which equals the allowed ROE, as
 reflected in the *Hope* and *Bluefield* Supreme Court decisions

	1	
1		cited in both my direct testimony 13 and witness Garrett's
2		testimony. ¹⁴ This relationship holds because utility
3		regulation by regulatory commissions acts as a substitute for
4		competition.
5		
6	Q.	Is the concept of utility regulation as a substitute for
7		market competition widely accepted as a fact and reflected as
8		such in academic literature?
9		
10	A.	Yes, it is. The Cost of Capital Manual, which is the training
11		manual for the Society of Utility and Financial Analysts, of
12		which witness Garrett and I are members, states:
13		In a sense, the "visible hand of public regulation
14		was (created) to replace the invisible hand of Adam
15		Smith in order to protect consumers against
16		exorbitant charges, restriction of output,
17		deterioration of service, and unfair
18		discrimination." [footnote omitted]
19		* * *
20		As indicated above, regulation of public utilities
21		reflects a belief that the competitive mechanism
22		alone cannot be relied upon to protect the public
23		interest. Essentially, it is theorized that a
		truly competitive market involving utilities cannot
24		survive and, thereby, will fail to promote the
25		
		13 E5-118

1	general economic welfare. But this does not mean	
2	that regulation should alter the norm of	
3	competitive behavior for utilities. On the	
4	contrary, the primary objective of regulation is to	
5	produce market results (i.e., price and quantity	
6	supplied) in the utility sectors of the economy	
7	closely approximating those conditions which would	
8	be obtained if utility rates and services were	
9	determined competitively. ¹⁵	
10		
11	Additionally, in Principles of Public Utility Rates,	Dr.
12	Bonbright states:	
13	Lest the reader of this chapter gain the impression	
14	that it is intended to deny the relevance of any	
15	tests of reasonable rates derived from the theory	
16	or the behavior of competitive prices, let me state	
17	my conviction that no such conclusion would be	
18	warranted. On the contrary, a study of price	
19	behavior both under assumed conditions of pure	
20	competition and under actual conditions of mixed	
21	competition is essential to the development of	
22	sound principles of utility rate control. Not only	
23	that: any good program of public utility rate	
24	making must go a certain distance in accepting	
25	competitive-price principles as guides to monopoly	
	E5-11	0

pricing. For rate regulation must necessarily try 1 to accomplish the major objectives that unregulated 2 3 competition is designed to accomplish; and the similarity of purpose calls for a considerable 4 degree of similarity of price behavior. 5 Regulation, then, as I conceive it, is indeed a 6 substitute for competition; and it is even a partly 7 8 imitative substitute. But so is а Diesel locomotive a partly imitative substitute for a 9 steam locomotive, and so is a telephone message a 10 partly imitative substitute for a 11 telegraph What I am trying to emphasize by these 12 message. crude analogies is that the very nature of a 13 monopolistic public utility is such as to preclude 14 15 an attempt to make the emulation of competition very close. The fact, for example, that theories 16 of pure competition leave no room for rate 17 discrimination, while suggesting a reason 18 for viewing the practice with skepticism, does 19 not prove that discrimination should be outlawed. 20 And a similar statement would apply alike to the use of 21 an original-cost or a fair value rate base, neither 22 23 of which is defensible under the theory or practice of competitive pricing.¹⁶ 24

25

Finally, Dr. Phillips states in The Regulation of Public Utilities:

1

2

22

Public utilities are no longer, if they ever were, З isolated from the rest of the economy. It is 4 possible that the expanding utility sector has been 5 taking too large a share of the nation's resources, 6 especially of investment. [footnote omitted] 7 At а 8 minimum, regulation must be viewed in the context of the entire economy - and evaluated in a similar 9 context. Public utilities have always operated 10 11 within the framework of a competitive system. They labor and materials must obtain capital, in 12 competition with unregulated industries. Adequate 13 14 profits are not guaranteed to them. Regulation 15 then, should provide incentives to adopt new methods, improve quality, increase efficiency, cut 16 costs, develop new markets and expand output in 17 line with customer demand. In short, regulation is 18 a substitute for competition and should attempt to 19 put the utility sector under the same restraints 20 competition places on the industrial sector.¹⁷ 21

In view of the legal standard cited by me and witness Garrett, and treatises on regulation likening regulation of utilities and the competitive market, it is plain to see that allowed

1		returns and investor-required returns are also equal.
2		
3	Q.	Do you have any concerns with witness Garrett's 8.10 percent
4		ROE estimate if the Company's proposed capital structure is
5		approved?
6		
7	A.	Yes, I do. Witness Garrett derives his 8.10 percent ROE
8		estimate using the Hamada model, which can be used to adjust
9		the cost of equity based on changes in the debt ratio,
10		assuming Peoples' proposed debt ratio of approximately 45.00
11		percent. 18 To estimate the change in the cost of equity based
12		on the change in the debt ratio, witness Garrett had to assume
13		a debt ratio to estimate the unlevered Beta coefficient
14		("beta"). Witness Garrett's assumption that 51.00 percent is
15		an appropriate debt ratio for the proxy group is unfounded.
16		
17	Q.	Why do you disagree with witness Garrett's assumed 51.00
18		percent debt ratio?
19		
20	A.	While I agree that it is reasonable to review the capital
21		structures of the proxy companies, the range of common equity
22		ratios depicts the range of typical or proper equity ratios
23		maintained by comparable risk companies. As shown in witness
24		Garrett's Exhibit DJG-15, the Company's proposed debt ratio
25		is within the range of the proxy companies. Because Peoples'
		E5-122

requested capital structure is consistent with the proxy
 companies, witness Garrett's Hamada adjustment, and his
 adjustment to the ROE to reflect Peoples' proposed capital
 structure, is unnecessary and should be ignored.
 B. Witness Garrett's Incorrect Observations that Allowed ROEs
 for Utilities Exceed the Investor-Required Return on the

for Utilities Exceed the Investor-Required Return on the Market

9 Q. Please summarize witness Garrett's claim that allowed returns
 10 for utility companies exceed the required return on the
 11 market.

12

23

8

Α. Witness Garrett estimates the investor-required return on the 13 market by adding the annual average 10-year Treasury bond 14 yield to a MRP calculated by the New York University School 15 of Business for the period 1990-2022.¹⁹ He then compares that 16 return to the average annual authorized returns for electric 17 utilities over that same period²⁰ to support his argument that 18 "awarded ROEs have been consistently above the market cost of 19 equity for many years."²¹ Witness Garrett further argues that 20 the excess returns awarded to utilities result in a transfer 21 of wealth from customers to shareholders.²² 22

Witness Garrett also refers to an article published in <u>Public</u> Utilities Fortnightly,²³ suggesting that utility stocks have

1		outperformed the broader market and will continue to do so in
2		the future.
3		
4	Q.	What is your response to witness Garrett's observations and
5		the conclusions he draws from them?
6		
7	A.	Witness Garrett's observations and resulting conclusions are
8		misguided. As a preliminary matter, witness Garrett's
9		conclusion that allowed returns for utility companies exceed
10		the required return on the market is merely his opinion and
11		is driven by the inputs he has chosen to estimate the required
12		return on the market. As discussed below, applying more
13		reasonable models and inputs demonstrate allowed ROEs average
14		about 71 percent of the required return on the market,
15		consistent with utility betas over the period from 1990-
16		2022.]
17		
18		The Public Utilities Fortnightly article referenced by
19		witness Garrett was published in August 2016 and relied on
20		data from August 31, 2004 to June 28, 2016. Shortly after
21		that date, the 30-year Treasury yield fell to its prior
22		cyclical low of 2.11 percent on July 8, 2016. Between July
23		and December 2016, the utility sector, as represented by
24		witness Garrett's proxy group, lost 9.17 percent of its value
25		as the broader market (measured by the S&P 500) increased by
		E5-124
		19

1		5.11 percent. That is, despite the article's conviction that
2		utilities would continue to outperform the market, shortly
		after its publication utility stocks meaningfully
3		
4		underperformed the broad market. From August 2016 through
5		June 16, 2023, the utility sector (measured by the XLU and
6		the Dow Jones Utility Average) significantly underperformed
7		the S&P 500.24 The premise and conclusion of the article
8		witness Garrett relies on, therefore, were essentially
9		immediately disproven.
10		Finally, regarding witness Garrett's required return on the
11		market, I disagree with his calculation of the implied MRP
12		because reasonable changes in his assumptions have
13		considerable effects on the calculation (as will be discussed
14		in detail in my critique of witness Garrett's CAPM analysis).
15		
16	Q.	Have you calculated the investor-required return on the
17		market for the period from 1990-2022?
18		
19	A.	Yes, I have. Using the Predictive Risk Premium Method
20		("PRPM"), ²⁵ I calculated the investor-required MRP for every
21		month in the period from 1990-2022. I then averaged the
22		monthly MRPs for each year and added the average 30-year
23		Treasury bond yield to those averages to arrive at investor-
24		required returns on the market for each year.
25		
		E5-125

Q. How did you derive the investor-required return on the market
 using the PRPM?

3

18

As explained in my direct testimony, the inputs to the PRPM Α. 4 are the historical returns on large capitalization stocks 5 minus the historical monthly yield on long-term U.S. Treasury 6 securities for the period from January 1990 through December 7 8 2022.²⁶ Using a generalized form of ARCH,²⁷ known as GARCH, each projected MRP was determined using Eviews[©] statistical 9 software. When the GARCH model is applied to the historical 10 returns data, it produces a predicted GARCH variance series 11 and a GARCH coefficient. I then averaged the monthly 12 investor-required return for each year to determine an annual 13 investor-required return, and then added the annual average 14 long-term government bond yield for each year²⁸ to arrive at 15 annual investor-required returns on the market for the period 16 from 1990-2022. 17

Next, I compared the investor-required return on the market 19 20 to the average allowed ROEs for natural gas and electric utilities for each year. As shown on page 2 of Document No. 21 investor-required 11, the return on the market is 22 consistently, and significantly, higher than the allowed 23 returns for natural gas distribution utility companies. 24 These results make intuitive sense, as the ratio of allowed 25

ROE versus required market return averages about 0.71, which 1 is consistent with utility betas over the period.] Given the 2 above, witness Garrett's claim that allowed ROEs for 3 utilities exceed investor-required market returns is simply 4 In addition, witness Garrett's claim that the 5 incorrect. excess returns awarded to utilities result in a transfer of 6 wealth from customers to shareholders²⁹ is also misplaced. 7 8 Document No. 11 shows that utilities have not been awarded excess returns. 9 10 11 С. Misapplication of the DCF Model Please briefly describe witness Garrett's constant growth DCF 12 Q. analyses and results. 13

14

15 Α. Witness Garrett applied "sustainable" growth rates to the constant growth DCF Model, which produced an ROE estimate of 16 7.50 percent.³⁰ For the dividend yield component, witness 17 Garrett relied on annualized dividend payments and 30-day 18 average stock prices as of May 25, 2023.³¹ 19 To estimate 20 expected growth, witness Garrett looked to two measures: (1) nominal Gross Domestic Product ("GDP") and (2) real GDP.³² Of 21 those two measures, he chose the highest estimate, 3.90 22 percent.³³ 23

- 24
- 25

Q. What are your general concerns with the growth rates on which

1		witness Garrett's DCF analyses rely?
2		
3	A.	First, witness Garrett assumed a single, perpetual growth
4		rate of 3.90 percent for all his proxy companies. ³⁴ By
5		reference to the Congressional Budget Office's expected
6		inflation rate of 1.70 percent, witness Garrett's method
7		assumed his proxy companies all will grow at real rates of
8		approximately 2.20 percent, in perpetuity. ³⁵ It is unlikely
9		an investor would be willing to assume the risks of equity
10		ownership in exchange for expected growth only modestly
11		greater than expected inflation. The risk simply is not worth
12		the expected return. ³⁶
13		For the same reason stated above, witness Garrett's remaining
14		growth rate estimate (presented in Exhibit DJG-6) is also not
15		an appropriate measure of growth for his DCF analysis.
16		
17		Finally, as a practical matter, because they are generic in
18		nature, his estimates fail to account for the risks and
19		prospects faced by the proxy companies.
20		
21	Q.	What other concerns do you have with the 3.90 percent growth
22		rate assumed for all companies in witness Garrett's DCF
23		analysis?
24		
25	A.	Witness Garrett's 3.90 percent growth rate is not based on
		23 E5-128

	1	
1		any measure of company-specific growth, or growth in the
2		utility industry in general. Rather, his proxy group serves
3		the sole purpose of calculating the dividend yield. Under
4		the DCF model's strict assumptions, however, expected growth
5		and dividend yields are inextricably related. Witness
6		Garrett's assumption that one growth rate applies to all
7		companies, even though dividend yields vary across those
8		companies, has no basis in theory or practice.
9		
10	Q.	Witness Garrett also offers his thoughts regarding the need
11		for qualitative analyses in developing expected growth
12		rates. ³⁷ What is your response to witness Garrett's
13		observations?
14		
15	A.	Witness Garrett suggests that although equity analysts may
16		consider quantitative factors, such as historical growth in
17		revenues or earnings, they also should consider "qualitative"
18		factors, such as how a given company may meet some level of
19		"sustainable" growth. ³⁸ He further observes unregulated
20		companies have options not available to utilities, and
21		suggests it would be more appropriate to consider factors
22		such as load growth in measuring growth rate expectations for
23		utilities. ³⁹
24		
25		There is no question analysts consider qualitative factors.

To that point, I reviewed transcripts of various utility 1 earnings conference calls demonstrating that analysts focus 2 on issues relating to operating expenses, required capital 3 investments, rate relief, and other factors that affect the 4 common equity and, therefore, 5 earned returns on the sustainable growth estimate.40 These inquiries reflect the 6 type of considerations analysts typically consider 7 for 8 utility companies.

In the case of just one of his proxy companies, therefore, 10 the level of fundamental research performed by analysts on 11 issues directly related to long-term growth reflects a 12 variety of factors, both quantitative and qualitative. 13 Thev 14 certainly go beyond "mere increases to rate base or earnings."41 The analysts' research also far exceeded witness 15 Garrett's limited perspective that load growth forecasts, 16 together with other "qualitative factors", support his 3.90 17 percent expected growth rate. 18

19

9

Q. It is witness Garrett's opinion that growth in a DCF model is limited by the long-term growth in GDP.⁴² Why is long-term growth in GDP not an upper limit for terminal growth as witness Garrett contends?

24

25 **A.** First, GDP is not a market measure - rather it is a measure

of the value of the total output of goods and services, 1 excluding inflation, in an economy. While I understand that 2 earnings per share ("EPS") growth is also not a market 3 measure, it is well established in the financial literature 4 that projected growth in EPS is the superior measure of 5 dividend growth in a DCF model.⁴³ Furthermore, GDP is simply 6 the sum of all private industry and government output in the 7 8 United States, and its growth rate is simply an average of the value of those industries. To illustrate, Document No. 9 12 presents the compound annual growth rate of the industries 10 that comprise GDP from 1947 to 2022. Of the 15 industries 11 represented, seven industries (including utilities) grew 12 faster than the overall GDP, and eight industries grew slower 13 than the overall GDP.⁴⁴ Given that utilities have grown faster 14 than the overall GDP over the 1947-2022 time period, I 15 disagree with witness Garrett's suggestion that "it is 16 reasonable to conclude that the long-term growth of a domestic 17 firm cannot outpace the growth rate of the aggregate economy 18 in which it operates."45 19 20 Did you conduct another analysis that calculates the amount 21 Q.

of time it would take an industry to overtake the entire economy?

25

A. Yes. I examined the value added by industry from 1947 to

	1	
1		2022 in Document No. 12 and used the compound annual growth
2		rates for the highest growth rate industry (i.e., Educational
3		Services, Healthcare, and Social Assistance at 8.53 percent
4		per year) to see when that industry would comprise the entire
5		economy. In the year 2327, or 380 years from the 1947
6		starting point, the industry would comprise over 50 percent
7		of GDP, and in the year 8982, or 7,035 years after the 1947
8		starting point, the industry would comprise 100 percent of
9		GDP. ⁴⁶ Not only have individual companies or industries
10		consistently grown at rates beyond GDP growth, but they have
11		done so without overtaking the entire economy. While witness
12		Garrett's argument may be technically correct, it is
13		unrealistic at best.
14		
15	Q.	Please respond to witness Garrett's comment regarding
16		"steady-state" growth rates.
17		
18	A.	On page 36 of his direct testimony, witness Garrett states,
19		"it is not necessary to use multi-stage DCF Models to analyze
20		the cost of equity of regulated utility companies. This is
21		because regulated utilities are already in their
22		'sustainable,' low growth stage." While I agree with witness
23		Garrett's statement regarding regulated utilities being in
24		the "mature" stage in the company/industry life cycle, I
25		disagree with his conclusion regarding the long-term growth
		E5 122

rates of regulated utilities.

As witness Garrett describes, the multi-stage DCF and its 3 growth rates reflect the company/industry life cycle, which 4 is typically described in three stages: (1) the growth stage, 5 which is characterized by rapidly expanding sales, profits, 6 and earnings. In the growth stage, dividend payout ratios 7 8 are low in order to grow the firm; (2) the transition stage, which is characterized by slower growth in sales, profits, 9 and earnings. In the transition stage, dividend payout ratios 10 increase, as their need for exponential growth diminishes; 11 the maturity (steady-state) (3) stage, which is 12 and characterized by limited, slightly attractive investment 13 14 opportunities, and steady earnings growth, dividend payout ratios, and returns on equity. 15

17 Since the utility industry is in the mature phase of the 18 company life cycle, it is the company-specific projected EPS 19 growth rate that is the appropriate measure of growth in a 20 constant growth DCF model, not the projected GDP growth rate 21 as witness Garrett asserts.

- Q. Are there examples in basic finance texts that support yourposition?
- 25

22

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Α.

Yes. For example, in <u>Investments</u>, life cycles and multistage growth models are discussed:

3 As useful as the constant-growth DDM (dividend discount model) formula is, you need to remember 4 that it is based on a simplifying assumption, 5 namely, that the dividend growth rate will be 6 constant forever. In fact, firms typically pass 7 8 through life cycles with very different dividend profiles in different phases. In early years, 9 ample opportunities for profitable 10 there are 11 reinvestment in the company. Payout ratios are low, and growth is correspondingly rapid. In later 12 years, the firm matures, production capacity is 13 sufficient to meet market demand, competitors enter 14 15 the market, and attractive opportunities for reinvestment may become harder to find. In this 16 mature phase, the firm may choose to increase the 17 dividend payout ratio, rather than retain earnings. 18 The dividend level increases, but thereafter it 19 20 grows at a slower pace because the company has fewer 21 growth opportunities.

Table 18.2 illustrates this pattern. It gives Value Line's forecasts of return on assets, dividend payout ratio, and 3-year growth in

earnings per share for a sample of the firms in the computer software industry versus those of east coast electric utilities...

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By in large, the software firms have attractive investment opportunities. The median return on assets of these firms is forecast to be 19.5%, and the firms have responded with high plowback ratios. Most of these firms pay no dividends at all. The high return on assets and high plowback result in rapid growth. The median growth rate of earnings per share in this group is projected at 17.6%.

In contrast, the electric utilities are more representative of mature firms. Their median return on assets is lower, 6.5%; dividend payout is higher, 68%; and median growth is lower, 4.6%.

19To value companies with temporarily high growth,20analysts use a multistage version of the dividend21discount model. Dividends in the early high-growth22period are forecast and their combined present23value is calculated. Then, once the firm is24projected to settle down to a steady-growth phase,25the constant-growth DDM is applied to value the

1		remaining stream of dividends. ⁴⁷ (Clarification and
2		emphasis added)
3		
4		The economics of the public utility business indicate that
5		the industry is in the steady-state, or constant-growth stage
6		of a multi-stage DCF, which would mean that the three- to
7		five-year projected growth rates for each company would be
8		the "steady-state" or terminal growth rate appropriate for
9		the DCF model for utility companies, not the GDP growth rate,
10		which is not a company-specific growth rate, nor is it an
11		upward bound for growth, as discussed previously.
12		
13	Q.	Witness Garrett expressed a concern about using analysts'
14		projected EPS growth rates because he asserts that analysts
15		consider rate base growth in their projected growth rates and
16		that utilities' natural financial incentive is to increase
17		rate base regardless of customer needs.48 Please respond.
18		
19	A.	The overall premise of witness Garrett's concern is without
20		merit and should be dismissed. First, regulated utilities
21		are only allowed to earn returns on and of assets that are
22		considered used and useful in serving the needs of its
23		customers. As the U.S. Supreme Court decision in Duquesne
24		Light Co. v. Barasch states:
25		To the <i>extent</i> utilities' investments turn out to be
		E5-136

1	bad ones (such as plants that are cancelled and so
2	never used and useful to the public), the utilities
3	suffer because the investments have no fair value
4	and so justify no return.49
5	
6	Additionally, capital projects undertaken by utility
7	companies are often subject to prudency reviews from
8	regulatory commissions, which would allow commissions to
9	review and deny any capital project not deemed in the public
10	interest. These two facts would eliminate any type of
11	investment by the utility that is not needed to expressly
12	provide safe, reliable service to their customers. Because
13	of this, equity analysts appropriately consider growth in
14	rate base in determining their recommended growth rates for
15	utilities.
16	
17	Finally, witness Garrett should recognize two things: (1)
18	utility assets degrade over time and eventually need to be
19	replaced; and (2) the assets replacing the degraded assets
20	are usually significantly more expensive than the degraded
21	assets. Because of this, rate base will grow consistently ad
22	infinitum, which supports both the utility industry's mature
23	position on the company/industry lifecycle regarding steady
24	and predictable growth, and the use of company-specific
25	projected analysts' EPS growth rates for use in the constant
	E5 127

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1		growth DCF model.
2		
3	Q.	Witness Garrett claims undue reliance on projected EPS growth
4		rates in the DCF model will lead to upward spiraling ROEs for
5		utility companies due to a feedback loop. ⁵⁰ Please respond.
6		
7	A.	As witness Garrett shows in his Figure 7 concerning annual
8		authorized returns, an upward spiraling ROE simply does not
9		exist. The independence of authorized ROEs and market data
10		is consistent with conclusions reached by Bonbright, who
11		states:
12		In the first place, commissions cannot forecast,
13		except within wide limits, the effect their rate
14		orders will have on the market prices of the stocks
15		of the companies they regulate. In the second
16		place, whatever the initial market prices may be,
17		they are sure to change not only with the changing
18		prospects for earnings, but with the changing
19		outlook of an inherently volatile stock market. In
20		short, market prices are beyond the control, though
21		not beyond the influence of rate regulation.
22		Moreover, even if a commission did possess the
23		power of control, any attempt to exercise it
24		would result in harmful, uneconomic shifts in
25		public utility rate levels (emphasis added). 51

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1	D.	Misapplication of the Capital Asset Pricing Model
2	Q.	Please summarize witness Garrett's CAPM analysis and results.
3		
4	A.	Witness Garrett's CAPM estimate relied on a risk-free rate of
5		3.81 percent, 5^{52} an MRP of 5.60 percent, 5^{53} and betas as reported
6		by Value Line Investment Services ("Value Line").54 Those
7		assumptions combined to produce an average CAPM estimate of
8		8.50 percent. ⁵⁵
9		
10	Q.	Do you agree with witness Garrett's CAPM analysis?
11		
12	A.	No, I do not. I disagree with witness Garrett's sole reliance
13		on historical Treasury yields to estimate the risk-free rate
14		and the various methods he used to estimate the MRP. Just as
15		important as our methodological differences, however, is our
16		difference regarding the reasonableness and reliability of an
17		analysis that produces ROE estimates of 8.50 percent.
18		
19	Q.	How did witness Garrett derive his MRP estimate?
20		
21	A.	Witness Garrett estimated his MRP by reviewing: (1) a survey
22		of expected returns from IESE Business School (5.70 percent);
23		(2) an expected return reported by Kroll (6.00 percent); (3)
24		implied MRP from Damodaran (5.10 percent); and (4) an "Implied
25		Equity Risk Premium" calculation (5.50 percent). ⁵⁶ Based on
		E5 120

	I	
1		those results, witness Garrett concluded that 5.60 percent,
2		the average of his range, is appropriate.
3		
4	Q.	Do any of the surveys cited by witness Garrett provide support
5		for your approach to estimating the current MRP?
6		
7	A.	Yes. As discussed in my direct testimony, 57 I calculated ex-
8		ante MRPs in a similar manner to a study by Pablo Fernandez,
9		et al (cited by witness Garrett), using the market
10		capitalization-weighted constant growth DCF calculation on
11		the individual companies in the S&P 500 Index. ⁵⁸
12		
13	Q.	Is there academic literature that supports the conclusion
14		that MRPs using surveys are not widely used by practitioners?
15		
16	A.	Yes. Damodaran, who was cited by witness Garrett throughout
17		his testimony, states the following about the applicability
18		of survey MRPs:
19		While survey premiums have become more accessible,
20		very few practitioners seem to be inclined to use
21		the numbers from these surveys in computations and
22		there are several reasons for this reluctance:
23		1. Survey risk premiums are responsive to recent
24		stock prices movements, with survey numbers
25		generally increasing after bullish periods and
		E5-140
		35 E3-140

1		decreasing after market decline. Thus, the
2		peaks in the SIA survey premium of individual
3		investors occurred in the bull market of 1999,
4		and the more moderate premiums of 2003 and
5		2004 occurred after the market collapse in
6		2000 and 2001.
7	2.	Survey premiums are sensitive not only to whom
8		the question is directed at but how the
9		question is asked. For instance, individual
10		investors seem to have higher (and more
11		volatile) expected returns on equity than
12		institutional investors and the survey numbers
13		vary depending upon the framing of the
14		question. [footnote omitted]
15	3.	In keeping with other surveys that show
16		differences across sub-groups, the premium
17		seems to vary depending on who gets surveyed.
18		Kaustia, Lehtoranta and Puttonen (2011)
19		surveyed 1,465 Finnish investment advisors and
20		note that not only are male advisors more
21		likely to provide an estimate but that their
22		estimated premiums are roughly 2% lower than
23		those obtained from female advisors, after
24		controlling for experience, education and
25		other factors. [footnote omitted]
	1	

E5-141

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1		4. Studies that have looked at the efficacy of
2		survey premiums indicate that if they have any
3		predictive power, it is in the wrong
4		direction. Fisher and Statman (2000) document
5		the negative relationship between investor
6		sentiment (individual and institutional) and
7		stock returns. ^[footnote omitted] In other words,
8		investors becoming more optimistic (and
9		demanding a larger premium) is more likely to
10		be a precursor to poor (rather than good)
11		market returns.
12		As technology aids the process, the number and
13		sophistication of surveys of both individual and
14		institutional investors will also increase.
15		However, it is also likely that these survey
16		premiums will be more reflective of the recent past
17		rather than good forecasts of the future.59
18		
19	Q.	What is your position on the 6.00 percent MRP quoted by Kroll?
20		
21	A.	A forecast is only as good as its inputs, and if the
22		assumptions within those forecasts are by its nature
23		unpredictable (e.g., productivity growth forecasts), they are
24		of little value. In addition, the determination of the MRP
25		as calculated by Kroll is not transparent, especially in view
		37 E5-142

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1		of the historical data presented in 2023 SBBI® Yearbook,
2		Stocks, Bonds, Bills, and Inflation ("SBBI-2023"), or the
3		composition of its supply side method, which are already well
4		known by investors. Because of the transparency of the
5		historical data and how to gather and use the components of
6		the supply side model, both the historical MRP (using the
7		long-term arithmetic mean return on large company stocks less
8		the long-term arithmetic income returns on long-term
9		Government bonds) and the supply side model are superior
10		measures of the MRP, when comparing to Kroll's simplistic and
11		opaque MRP forecast.
12		
13	Q.	Please now describe the method by which witness Garrett
14		calculated his fourth estimate, the implied MRP.
15		
16	A.	As witness Garrett points out, his method developed the
17		Internal Rate of Return that sets equal the current value of
18		the market index to the projected value of cash flows
19		associated with owning the market index. ⁶⁰ Witness Garrett
20		observes that Damodaran "promotes the implied ERP method." $^{^{\prime}}$
21		Although there are some differences, witness Garrett's
22		approach is similar to the model Damodaran provides on his
23		website. ⁶²
24		
25		Witness Garrett's method, which is a two-stage form of the

	i.	
1		DCF model, calculated the present value of cash flows over
2		the five-year initial period, together with the terminal
3		price (based on the Gordon Model 63), to be received in the
4		last (i.e., fifth) year. The model's principal inputs include
5		the following assumptions:
6		• Over the coming five years, the S&P 500 Index (the "Index")
7		will appreciate at a rate equal to the compound growth rate
8		in "Operating Earnings" from 2012 through 2022;
9		• Cash flows associated with owning the Index will be equal
10		to the historical average earnings, dividends, and buyback
11		yields, applied to the projected Index value each year;
12		and
13		• Beginning in the terminal year, the Index will appreciate,
14		in perpetuity, at a rate equal to the 30-day average yield
15		on 30-year Treasury securities, as of May 25, 2023. 64
16		
17		As discussed below, reasonable changes to those assumptions
18		have a considerable effect on witness Garrett's calculated
19		expected market return.
20		
21	Q.	Do you have any observations regarding witness Garrett's
22		assumed first-stage growth rate?
23		
24	Α.	Yes. Witness Garrett's 6.64 percent growth rate relates to
25		growth in operating earnings, and does not reflect capital
		E5-144
		39

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1	appreciation, growth in dividends, or buy-backs. ⁶⁵ In
2	addition, if witness Garrett's position is that historical
3	growth rates are meant to reflect expected future growth,
4	they should reflect year-to-year variation (i.e.,
5	uncertainty). That is best accomplished using the arithmetic
6	mean. I therefore calculated the average growth (i.e.,
7	arithmetic mean) for the four metrics included in witness
8	Garrett's exhibit as shown on Document No. 13. The average
9	growth rate, 9.79 percent, produced an estimated market
10	return of about 10.02 percent, ⁶⁶ which is still well below
11	historical experience.
12	
13 Q.	Why did the market return increase by only 76 basis points
14	(from 9.26 percent to 10.02 percent) when the first-stage
15	growth rate increased by 315 basis points (from 6.64 percent
16	to 9.79 percent)?
17	
18 A.	Because witness Garrett's model assumed the first stage lasts
19	for five years (and the terminal stage is perpetual), the
20	results are sensitive to changes in the assumed terminal
21	growth rate. To put that effect in perspective, the terminal
22	value (which is directly related to the terminal growth rate)
23	represents approximately 76.90 percent of the "Intrinsic
24	Value" in witness Garrett's analysis.67
25	

-		
1	Q.	How did witness Garrett develop his assumed terminal growth
2		rate?
3		
4	A.	The terminal growth rate represents investors' expectations
5		of the rate at which the broad stock market will grow, in
6		perpetuity, beginning in the terminal year. Witness Garrett
7		assumed terminal growth is best measured by the average yield
8		on 30-year Treasury securities over the 30 days ended May 25,
9		2023. That is, witness Garrett assumed the average 30-year
10		Treasury yield between April 14, 2023 and May 25, 2023 is the
11		best measure of expected earnings growth beginning five years
12		from now and extending indefinitely into the future.
13		
14	Q.	Do you agree with witness Garrett's assumption?
15		
16	A.	No, I do not. I recognize witness Garrett followed the
17		approach described in Damodaran's method, which Damodaran
18		refers to as a "default" assumption.68 In terms of historical
19		experience, over the long-term the broad economy has grown at
20		a long-term compound average growth rate of approximately
21		6.09 percent. ⁶⁹ Considered from another perspective, Kroll
22		reports the long-term rate of capital appreciation on Large
23		Company stocks to be 7.90 percent. ⁷⁰ Witness Garrett's model
24		assumes, however, that the market index will grow by a rate
25		almost 280 basis points below that amount, 5.11 percent, over
		E5-146

the coming four years.⁷¹

Witness Garrett has not explained why growth beginning five 3 years in the future, and extending in perpetuity, will be 4 less than one-half of long-term historical growth.⁷² From a 5 somewhat different perspective, assuming long-term inflation 6 will be approximately 2.00 percent⁷³ implies perpetual real 7 growth will be approximately 1.78 percent.74 Nowhere in his 8 testimony has witness Garrett explained the fundamental, 9 systemic changes that would so dramatically reduce long-term 10 economic growth, or why they are best measured by the long-11 term Treasury yield over 30 days between April 14, 2023 to 12 May 25, 2023. 13

14

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Further, research by the Federal Reserve Bank of San Francisco calls into question the relationship between interest rates and macroeconomic growth. As the authors noted, "[o]ver the past three decades, it appears that private forecasters have incorporated essentially no link between potential growth and the natural rate of interest: The two data series have a zero correlation."⁷⁵

- Q. Please briefly summarize your response to witness Garrett's
 Implied Equity Risk Premium calculation.
- 25

	I	
1	A.	Witness Garrett's calculation is based on a series of
2		questionable assumptions, to which a small set of very
3		reasonable adjustments produces a market return estimate more
4		consistent with (yet still below) the historical experience
5		he considers relevant. Although the revised results still
6		produce ROE estimates far below any reasonable measure, they
7		do point out the sensitive nature of witness Garrett's
8		analyses, and the tenuous nature of the conclusions he draws
9		from them.
10		
11	Q.	Does witness Garrett employ an Empirical CAPM ("ECAPM") in
12		his CAPM analysis?
13		
14	A.	No, he does not. Witness Garrett fails to consider the ECAPM,
15		despite the fact that numerous tests of the CAPM have
16		confirmed that the empirical security market line ("SML")
17		described by the traditional CAPM is not as steeply sloped as
18		the predicted SML. Because of the empirical findings
19		presented in my direct testimony ⁷⁶ , witness Garrett should
20		have considered the ECAPM in his CAPM analysis.
21		
22	Е.	Adjustments to the Cost of Common Equity
23	Q.	Does witness Garrett consider a business risk adjustment in
24		his recommended ROE for Peoples?
25		
		E5-148

	i	
1	A.	No, he does not. Witness Garrett argues that "[i]nvestors do
2		not require additional compensation for assuming these firm-
3		specific business risks."77 In addition, he states that firm-
4		specific risk factors should not be considered when
5		estimating Peoples' cost of equity. ⁷⁸
6		
7	Q.	Do you agree with witness Garrett's observations?
8		
9	A.	No, I do not. As discussed on pages 7-10 of my direct
10		testimony, when determining an appropriate ROE, the relevant
11		issue is where investors see the subject company in relation
12		to other similarly situated utility companies. To the extent
13		investors view a company as being exposed to higher risk, the
14		required return will increase, and vice versa. Peoples'
15		smaller size relative to the Utility Proxy Group companies
16		indicates greater relative business risk for the Company
17		because, all else being equal, size has a material bearing on
18		risk.
19		
20	Q.	Did witness Garrett address the issue of a size premium in
21		his testimony?
22		
23	Α.	Yes. Witness Garrett lists several reasons for his decision
24		to not include a size premium in his recommendation,
25		including: (1) numerous studies show that "the performance of
		E5-149
		44

-		
1		large-cap stocks was basically equal to that of small cap
2		stocks," ⁷⁹ and (2) that the "discovery of the size effect
3		phenomenon likely caused its own demise."80
4		
5	Q.	Is witness Garrett's review of the size premium correct?
6		
7	A.	No, it is not. First, witness Garrett notes that after 1983,
8		U.S. small-cap stocks underperformed large-cap stocks. ⁸¹ The
9		issue with witness Garrett's position is that the size premium
10		measures the increased risk associated with a company's
11		smaller size; witness Garrett is only focused on returns. As
12		I discussed in my direct testimony, smaller companies face
13		increased business risk as they are less equipped to cope
14		with significant events that affect sales, revenues, and
15		earnings, as the loss of a few larger customers will have a
16		greater effect on a smaller company than a larger company. ⁸²
17		
18		This is further evident when we consider that increasing
19		capital costs (i.e., risk) for one set of securities will put
20		downward pressure on those securities as investors transition
21		to securities with lower risk. Under this premise, the
22		underperformance is directly tied to the increase in risk.
23		As such, witness Garrett's premise that smaller companies'
24		underperformance indicates a reduction of risk is in fact the
25		opposite - underperformance indicates an increasing level of
		E5-150

1		risk.
2		
3	Q.	Witness Garrett points to a passage published in 2015 by
4		Ibbotson ⁸³ that states that the size premium no longer exists.
5		What is your response?
6		
7	A.	Despite their findings, Kroll (which now owns Ibbotson)
8		continues to publish data on their findings on the presence
9		of a size premium in the market, and has provided additional
10		measures of size and relative risk premiums. In addition to
11		market capitalization, Kroll includes book common equity,
12		market value of invested capital, five-year average net
13		income, five-year average earnings before interest, taxes,
14		depreciation and amortization, total assets, total sales, and
15		total employees as valid measures of size from which relative
16		size premiums are derived. If Kroll found that the size
17		premium ceased to exist, it would not publish that it did.
18		
19	Q.	Do you agree with witness Garrett that the size effect no
20		longer exists?
21		
22	A.	No, I do not. While the historical returns of large companies
23		may have outperformed small utilities over the last several
24		years, risk is measured by volatility, not returns. A study
25		by Clifford Ang detailed the returns and volatility of returns
	ļ	E5-151

	ı	
1		of companies by size, showing while larger companies out-
2		performed smaller companies, smaller companies exhibited more
3		risk. ⁸⁴ Reviewing data from the same source as the Ang study,
4		I replicated the study through May 2023. Document No. 14
5		presents the largest monthly gain and loss for each value-
6		weighted decile for the period 1981 through May 2023. As
7		shown in Document No. 14, small capitalization stocks exhibit
8		more volatility (i.e., risk) in their returns than larger
9		capitalization stocks.
10		
11		Further, SBBI-2023 shows that the total return of large-cap
12		stocks over the 1926-2022 period has a standard deviation of
13		19.8 percent, compared to 31.2 percent for small-cap stocks,
14		echoing the findings of Document No. 14.85 The higher level
15		of risk indicates a higher level of required return.
16		
17	Q.	Did witness Garrett address the issue of flotation costs in
18		his testimony?
19		
20	A.	Yes. Witness Garrett reasons that flotation costs for stock
21		issuances are not out-of-pocket costs, which investors
22		already have considered when deciding to invest in a company's
23		shares at a given market price. 86 On that basis, he argues
24		against considering the effect of flotation costs in setting
25		the Company's ROE.
		E5-152

1	Q.	What is your response to witness Garrett regarding the need
2		to recover flotation costs?
3		
4	A.	First, witness Garrett's observation that underwriter fees
5		are not "out-of-pocket" expenses 87 is a distinction without a
6		meaningful difference. Whether paid directly or indirectly
7		through an underwriting discount, the cost results in net
8		proceeds that are less than the gross proceeds. As shown in
9		Document No. 8, because those costs were incurred, the net
10		proceeds were less than the gross proceeds. Whether the
11		issuer wrote a check or received the proceeds at a discount
12		does not matter. What does matter is that issuance costs are
13		a permanent reduction to common equity, and absent a recovery
14		of those costs, the issuing company will not be able to earn
15		its required return.
16		
17		Lastly, as shown in the illustrative examples provided in
18		Document No. 15, ⁸⁸ because of flotation costs, an authorized
19		return of 10.85 percent would be required to realize an ROE
20		of 10.75 percent (i.e., a 10-basis point flotation cost
21		adjustment). If flotation costs are not recovered, the growth
22		rate falls and the ROE decreases to 10.65 percent (i.e., below
23		the required return). ⁸⁹
24		
25	Q.	Is the fact that investors are aware of equity issuance costs
		48 E5-153

when they decide to purchase stock⁹⁰ relevant to the determination of the appropriate compensation for those costs?

1

2

3

4

22

No, it is not. Although witness Garrett suggests current 5 Α. prices account for flotation costs, he has not provided any 6 explanation as to how market prices compensate shareholders 7 8 for flotation costs or any analyses to support his position. In that important respect, common stock is closely analogous 9 to long-term debt, both in the sense that its purpose is to 10 provide funding for long-term investments that are part of 11 rate base, and that it remains a part of the utility's 12 operations over the long run. Equity flotation costs and 13 14 debt issuance expenses both are necessary and legitimate costs enabling the investment in assets needed to provide 15 safe and reliable utility service; both should be recovered. 16 17

18 F. <u>Response to Witness Garrett's Critiques of Company</u>
 19 Testimony

20 Q. Does witness Garrett have any critiques of your analyses
21 presented in your direct testimony?

A. Yes, he does. Witness Garrett's critiques of my direct
 testimony are: (1) my requested ROE is in excess of the
 investor-required return on the market; (2) my growth rates

	1	
1		used in the DCF model exceed GDP growth; (3) my MRP is
2		unreasonable because it is not in line with his MRP estimates;
3		(4) my use of the ECAPM; (5) my use of a non-regulated proxy
4		group; (6) my inclusion of a small size premium is
5		unnecessary; and (7) my application of flotation costs.
6		
7		I have already addressed critiques 1, 2, 4, 6 and 7 previously
8		and will not address them here. I will discuss witness
9		Garrett's remaining arguments in turn.
10		
11	Q.	Witness Garrett states that your MRP is unreasonable in view
12		of his measures of MRP as presented in his CAPM analysis. 91
13		Please respond.
14		
15	A.	I have discussed the inapplicability of witness Garrett's MRP
16		estimates for cost of capital purposes previously in this
17		rebuttal testimony and will not repeat that discussion here.
18		Since witness Garrett's MRP measures are not valid MRPs, they
19		cannot be comparable to my MRP estimates. Even though witness
20		Garrett has presented no reliable evidence upon which to gauge
21		the reasonableness of the MRP estimate, my estimates of 9.75
22		percent and 10.01 percent in my direct and rebuttal
23		testimonies, respectively, are consistent with actual
24		realized MRPs. As shown in Document No. 16, , my estimates
25		fall within the 53^{rd} and 54^{th} percentile of historical MRPs,
		E5-155

	1	
1		respectively.
2		
3		Given all of the above, my calculation of the MRPs in my CAPM
4		and ECAPM analyses is reasonable in view of historical returns
5		and other expected measures of the MRP and is supported by
6		financial literature. Thus, witness Garrett's concern should
7		be dismissed.
8		
9	Q.	Please summarize witness Garrett's argument against using a
10		non-price regulated proxy group similar in total risk to a
11		utility proxy group to determine an indicated ROE for Peoples
12		in this proceeding.
13		
14	A.	Witness Garrett opines that there is no marginal benefit for
15		running a CAPM or DCF model on a group of non-regulated, non-
16		utility companies. Additionally, witness Garrett believes
17		that competitive firms typically have higher levels of risk
18		than utilities. ⁹²
19		
20	Q.	Do you agree with witness Garrett's reasoning?
21		
22	A.	No. As a preliminary matter, as noted on page 6 of my direct
23		testimony, in an effort to be conservative, I have not
24		directly considered the results of my Non-Price Regulated
25		Proxy Group analyses in determining my recommended ROE range.
		E5-156

1		However, I have used the results of those analyses as a check
2		on the reasonableness of my analytical models.
3		
4		Regarding witness Garrett's claim that there is no marginal
5		benefit to running my Non-Price Regulated Proxy Group
6		analysis, this directly contradicts his own claim that "[i]t
7		is preferable to use multiple models because the results of
8		any one model may contain a degree of imprecision."93 Because
9		regulation is a substitute for competition, the application
10		of cost of common equity models to comparable risk, non-
11		regulated companies produces a marginal benefit that cannot
12		be replicated using utility companies.
13		
14	Q.	Does witness Garrett discuss risk and relevance of risk for
15		cost of capital purposes in his testimony?
16		
17	A.	Yes. In Section V of his direct testimony, witness Garrett
18		discusses risk and return concepts in general. On page 28 of
19		his direct testimony, witness Garrett states: "Market risk is
20		the only type of risk that is rewarded by the market and is
21		thus the primary type of risk the Commission should consider
22		when determining the allowed return."
23		
24	Q.	How does your selection criteria for your Non-Price Regulated
25		Proxy Group fit into the above discussion?
		E5-157

1	A.	Following witness Garrett's logic, given that unadjusted
2		betas are measures of market risk (the primary measure of
3		risk according to witness Garrett), and one of my screening
4		criteria was to generate companies with similar unadjusted
5		betas as the Utility Proxy Group, my Non-Price Regulated Proxy
6		Group, by his definition, would be comparable to my Utility
7		Proxy Group.
8		
9	Q.	Does witness Garrett look to non-price regulated companies in
10		any of his analyses?
11		
12	A.	Yes. In assessing Peoples' capital structure, witness
13		Garrett reviews the debt ratios of competitive industries.94
14		The major mistake in witness Garrett's analysis is the same
15		mistake he falsely accuses me of. In his comparisons of the
16		capital structures of non-regulated industries to Peoples, he
17		does not evaluate the industries' market risk in comparison
18		to Peoples. If witness Garrett evaluated the market risk
19		(i.e., unadjusted betas) of those industries, he would have
20		found that those industries are not comparable to utility
21		companies like Peoples. Using witness Garrett's own source,
22		Damodaran, the average unadjusted beta of the industries that
23		have debt ratios over 45.32 percent is 0.56, whereas the
24		Utility (General) unadjusted beta is 0.41.
<u> </u>		

E5-159

Q. Please summarize your discussion regarding the use of non price regulated proxy groups in cost of capital analyses for
 regulated utilities.

Α. The use of non-price regulated proxy groups in cost of capital 5 analyses for regulated utility companies should be considered 6 by regulatory commissions as another tool in the tool kit to 7 8 determine the ROE for a utility, provided that the non-price regulated proxy group is shown to be of comparable risk. 9 The Non-Price Regulated Proxy Group used in my analyses was 10 screened using measures of systematic and unsystematic risk, 11 to show similar total risk. Witness Garrett's non-price 12 regulated industry study was not screened for any risk aside 13 from financial risk, which, as stated previously, is not a 14 15 proxy for total risk. For these reasons, my Non-Price Regulated Proxy Group analyses should be considered by the 16 Commission while witness Garrett's non-price 17 regulated industry analyses should be rejected by the Commission. 18

19

4

20 V. SUMMARY

Q. Should any or all of the arguments made by witness Garrett persuade the Commission to lower the ROE it approves for Peoples below your recommendation?

24

25 **A.** No, they should not. Based on the analyses discussed

	1	
1		throughout my rebuttal testimony, and given the current
2		capital market conditions, I believe that the reasonable
3		range of ROE estimates for Peoples is from 9.89 percent to
4		12.03 percent, and 11.00 percent continues to be a reasonable,
5		although conservative, estimate of the Company's ROE.
6		
7	Q.	Does this conclude your rebuttal testimony?
8		
9	A.	Yes, it does.
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
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23		
24		
25		
		E5-160

1	BY MR. MEANS:
2	Q And, Mr. D'Ascendis, did you also prepare and
3	cause to be filed in it your direct testimony DWD-1
4	consisting of 13 documents?
5	A I did.
6	Q And did you also prepare and cause to be filed
7	with your rebuttal testimony in Exhibit DWD-2 consisting
8	of 17 documents?
9	A Yes, sir.
10	MR. MEANS: Mr. Chairman, Peoples would note
11	for the record that Exhibits DWD-1 and 2 have been
12	identified on the comprehensive exhibit list as
13	Exhibits 20 and 30.
14	CHAIRMAN FAY: Okay. So noted.
15	BY MR. MEANS:
16	Q Mr. D'Ascendis, would you please summarize
17	your prepared direct and rebuttal testimony?
18	A Sure.
19	Good afternoon, Commissioners. Thank you for
20	the opportunity to appear today. My name is Dylan
21	D'Ascendis. I am a partner at ScottMadden, Inc.
22	The purpose of my testimony is to provide a
23	recommendation regarding the return on common equity,
24	also referred to as the ROE for the cost of equity for
25	Peoples Gas System, which I also refer to as Peoples, as

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1	well as provide an assessment of the company's capital
2	structure to be used for ratemaking purposes.
3	Please note that I filed direct testimony on
4	behalf of Peoples, as well as submitted rebuttal
5	testimony to respond to Florida Office of Public Counsel
6	witness David J. Garrett with respect to the company's
7	ROE in this case.
8	In view of capital markets and the results of
9	the analytical models presented in my testimony, a
10	reasonable range of ROEs applicable to Peoples is
11	between 9.89 percent and 12.03 percent. Within that
12	range, I recommend that the Commission authorize an ROE
13	of 11 percent for Peoples. My recommended ROE considers
14	a variety of factors that affect the required return to
15	equity investors in the company.
16	My testimony discusses the multiple analytical
17	approaches that were evaluated to develop my ROE
18	recommenda recommendation sorry. My testimony
19	explains that no single model is so inherently precise
20	that it could be relied upon to the excuse to the
21	exclusion of other theoretically sound models. Using
22	multiple models adds to the reliability of the estimated
23	common equity cost rate with the prudence of using
24	multiple counts of common equity models are supported in
25	both the financial literature and regulatory process.

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1 In my testimony, I discuss the market rates, 2 common equity cost rates of companies of relatively 3 similar but not necessarily identical risk to Peoples. 4 Because no proxy group can be identical in risk to any 5 single company, there must be an evaluation of relative б risk between the company and the proxy group to 7 determine if it is appropriate to adjust the proxy 8 group's indicated rate of return.

9 My testimony explains how the analysis to determine an appropriate ROE is affected by the various 10 11 business and financial risks faced by the company. My 12 ROE -- my ROE recommendation considers such factors as 13 the effect of flotation costs and the company's smaller 14 Also, the company's high level of customer size. growth, overall performance and capital investment plans 15 16 relative to the companies in my proxy group.

17 The analyses presented in my recommendation 18 support for the company requested ratemaking capital 19 structure, which consists of 40.48 percent long-term 20 debt and 54.68 percent common equity. That common 21 equity ratio is consistent with Peoples' historical 22 equity ratio and the range of equity ratio maintained by 23 the proxy group and their utility operating 24 subsidiaries. 25 Finally, my testimony responds to issues

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1 raised by and addresses the shortcomings within Mr. 2 Garrett's testimony. None of his arguments changed my conclusion that the company should be authorized the 3 4 opportunity to earn an ROE of 11 percent on its 5 jurisdictional rate base based on its proposed ratemaking capital structure. Likewise, his analysis 6 7 should not persuade the Commission to include an ROE for 8 Peoples blow my recommendation. 9 Thank you. 10 All right. Yeah, go ahead. CHAIRMAN FAY: 11 MR. MEANS: Mr. Chairman, we tender Mr. 12 D'Ascendis for cross-examination. 13 Okay. Ms. Christensen? CHAIRMAN FAY: 14 MS. CHRISTENSEN: Yes. Thank you. 15 EXAMINATION 16 BY MS. CHRISTENSEN: 17 And good afternoon, Mr. D'Ascendis. I just 0 18 wanted to ask you --19 Α Good afternoon. 20 -- as a preliminary matter, do you have a copy Q 21 of your deposition that was taken? 22 Α Yes, it's right in front of me. 23 Wonderful. And do you also have a copy 0 Okay. 24 of Mr. Garrett's testimony in this matter available to 25 you?

1	A Yes. Right here.
2	Q Okay.
3	A I am sorry. I have a blurred background, but
4	yes, I have it.
5	Q Yeah, and I want to make sure that you, of
6	course, have a copy of your own direct and rebuttal
7	testimonies available to you as well.
8	A I do.
9	Q It's my intention, as we come across cross
10	exhibits, to email those to you one at a time. So if
11	you when I call out a cross-examination exhibit, if
12	you can be looking for those in your email, that would
13	be wonderful, and let us know when you receive them. So
14	we will see how that goes and we will just do the best
15	we can.
16	A Okay.
17	Q I want to refer you to page three of your
18	direct testimony. And you have identified document 13
19	attached to your direct testimony as your educational
20	background and the cases where you have appeared, is
21	that correct?
22	A Yes, ma'am.
23	Q And
24	A Yeah.
25	Q according to that document, would it be

1 correct to say that you have testified in over 130 2 cases? 3 Α That sounds about right. Yes. 4 Okay. And would you agree that you only Q 5 testify on behalf of utility companies? And sometimes in evaluation cases 6 Α Yes, ma'am. 7 I will -- well, yeah, they are utility companies, not -not investor-owned, so they are on the utility side, but 8 9 not necessarily investor-owned utilities. 10 And you have testified or provided Q Okav. 11 information before approximately 35 state jurisdictions, FERC and Canada, and I think you said one Rhode Island 12 13 court, is that correct? 14 Yes, the Superior Court of Rhode Island. Α And that would be a fair summation of the 15 0 16 jurisdictions that you have appeared before? 17 Also an American Arbitration panel. Α 18 Okay. Would you agree that the awarded ROEs 0 19 in Florida are generally higher than the other 20 jurisdictions that you have testified before on average? 21 Α I mean, the ROE isn't specifically the number 22 one class within a rate case, but I would say generally 23 they are on the high end of the range of authorized 24 returns around the country, besides Alaska. I think we 25 went over that in our deposition.

Q Okay. And would you agree that there are other jurisdictions with lower than average ROEs that are considered highly constructive, like New York and California?

5 A Yes, I would. And it is interesting, though, 6 concerning New York, they used to have ROEs in the 8.8 7 level, and this year, they raised their ROE up to around 8 9.25. So their ROEs have gone up 45 basis points over 9 the last probably 18 months.

Q Okay. And would you also agree that other jurisdictions, like New York and California, have infrastructure riders, like decoupling, fully forecasted test years, multiple rate -- multiple year rate plans, and things that, where even though the ROEs are lower, the chances for them earning their ROE is higher; would that be a fair assessment?

17 I would agree with that. One thing I would Α 18 like to clarify about California. California, in the 19 energy side, they do have relatively high ROEs, but on 20 the waterside, they have lower ROEs than average. So 21 California, they authorize ROEs for San Diego Gas & 22 Electric, I think, is 10.20 this year. So I would sav 23 that they are more higher than average, but in the water 24 companies, yes, they are significantly lower on their 25 authorized ROEs.

1 And would you agree that Florida has similar 0 2 type infrastructure riders, such as bare steel fully 3 forecasted test years and fuel pass-through clauses? 4 Α I am not sure about the regulatory mechanisms. 5 Usually those type of mechanisms are common -- common to all of the publicly traded utility companies, maybe not 6 7 the forward test year, but the various riders are fairly 8 common.

9 Q Okay. And I think you said today that Alaska 10 is probably the only other jurisdiction in the 35 that 11 you testified before that award higher ROEs than Florida 12 during the same time period, is that a correct 13 statement?

14 A That is.

15 Okay. And you would agree that Alaska has 0 16 different risk, such as weather and remoteness, and high costs that are higher than the lower 48 states that 17 18 would drive an Alaskan ROE higher, would that be fair? 19 Α Yes, it would be fair. But I would want to 20 back up just a little bit. I would -- I would say that 21 Georgia and Florida are pretty comparable. I haven't 22 testified in Georgia, so I don't know for certain based 23 on my own personal experience --24 You said Georgia? 0 25 -- but ves. Α

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1 But the question was related to Alaska. 0 Okay. 2 Α Yes. I agree with your characterization Yes. 3 about that. I was going back to your prior question about Florida being the second highest in the country. 4 5 I don't know if that's exactly true, but I know there are, like I said, they are amongst the highest. 6

Q Okay. And would you also agree that the factors we discussed related to Alaska being remote, and having weather issues, and being higher costs than the other lower 48, those are not similar factors to what Florida has, correct?

12 I wouldn't agree with that statement because Α 13 everybody has weather issues, especially -- I mean, I am 14 sitting here remote because of a hurricane that hit, 15 right, or I would have been there. So I wouldn't say 16 that weather is one of those things where you can say is 17 unique to Alaska. Now, the remoteness, and all those 18 factors, I would agree with you, but weather, I would 19 not agree. 20 Okay. And since we are discussing Alaska 0

having the highest awarded ROEs, do you -- do you recall -- well, let me ask you this: Have you testified in Alaska regarding ROE?

A I have.

25 Q Okay. And do you recall what you recommended

1 as an ROE for Alaska? 2 Α Well, I have testified on a couple different 3 occasions for Alaska companies, and generally, those are 4 -- those are not contemporary. Generally, they are -- I 5 haven't testified for a gas company in Alaska, a straight -- a normal local distribution company like 6 7 this one, so I wouldn't -- it wouldn't be a comparable 8 measure, so I don't -- I don't know what to say about 9 that. 10 Do you know what the average national --Q 11 natural gas awarded ROE has been since 2013? 12 I don't, but I did look up in preparation for Α 13 this case, and then when Ms. Wesley was being 14 cross-examined, I took a look at some of the RRA data 15 that this was -- that I quess the confidential exhibit 16 was premised on, and it looked like in 2022, gas LDC 17 companies were approved in between a nine percent and a 18 10.20 percent in 2022. And that midpoint is 9.6, which 19 is higher than what was demonstrated in that last -- in 20 that one exhibit that you showed Ms. Wesley. 21 In this -- in 2023, so far this year, the 22 range is 9.25 percent to 10.44 percent, which would have 23 a midpoint of 9.85 percent. 24 0 Let me ask you this: Who was that -- or what 25 state was the 10.44 percent in?

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1 Virginia. Α 2 Okay. Let me discuss you with a little bit Q 3 about your PRM -- or PRPM model. 4 Α Yes, ma'am. 5 Is it correct that in cases where you 0 Okay. have testified, regulators have adopted your particular 6 7 ROE recommendation only once? They have -- well, I mean, we'll back up. 8 Α 9 Usually in rate cases is -- are just like marriage, half 10 of them end in a settlement. So it wouldn't be a 11 correct characterization that only one has been approved 12 out of that number -- that number of cases. 13 Second, generally, commissions don't speak the 14 specific model results or specific inputs to the model results, which the PRPM is one of those, so --15 16 And then, third, when you -- when you look at 17 other decisions they have accepted, like in North 18 Carolina, they have accepted my CAPM and my risk 19 premium, my total market risk premium, and the PRPM was 20 performed as performed in this case. 21 So sometimes they are approved in piecemeal. 22 Sometimes they are considered and not spoken about. 23 Some are considered and adopted, and then some are 24 considered and rejected. It depends on what the record 25 is in the case.

1 Do you recall taking a deposition on August 0 2 1st, 2023? 3 Α Yes. And do you recall being asked this question: 4 Q 5 How many cases have you testified in where the regulator either has adopted your particular ROE recommendation, 6 7 if you know? And do you recall your response was: 8 Once? 9 Α And what page is that, please? 10 Page 66, lines 11 through 14. Q 11 Α And then I said that it was in response to the 12 Interrogatory 109. Do you recall 13 But my question was: 0 Right. 14 having your deposition and answering that question? 15 Α Yes, ma'am, but --16 0 Thank you. 17 -- 109 refers to both. Α 18 We'll get there. 0 19 Α Okay. 20 I am going to go ahead and ask, since you have Q 21 already discussed the South Carolina case, was that a South Carolina case in 2018, where you recommended a 22 23 10.5 ROE on behalf of the utility, which was at the low 24 end of your range; is that correct? 25 Α That's right.

1 I am going to ask to have you sent OPC 0 Okay. 2 73, and ask them to hand out our Exhibit 73, which is 3 your response to interrogatory 109, which I believe is already marked for identification as hearing Exhibit 4 5 117. Α 6 Sure. 7 Please let me know when you receive the email. 0 8 Α I will let you know. You said that it was the 9 response to staff's fifth set of interrogatories 109, 10 correct? 11 Q That is correct. So then it would -- it would start with -- I 12 Α 13 have it in front of me --14 Q Okay. 15 Α -- if we want to --16 0 Yeah, if you --17 I could read the question and then you just Α 18 make sure that I am on the right place. 19 The question starts with, please refer to 0 20 witness D'Ascendis direct testimony, and then it goes 21 further to say, on page 35, et cetera; is that the 22 correct --23 I am there. Α Yes, ma'am. Yeah. 24 Q Okay. 25 CHAIRMAN FAY: Ms. Christensen, is it --

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1THE WITNESS: It depends how long it takes to2get there.

3 CHAIRMAN FAY: That's what I was going to say. 4 If he has it in front of him, is that, I mean, 5 sufficient? You are referencing a specific part of 6 that response.

MS. CHRISTENSEN: We can proceed if we -- we
weren't sure how quickly it would take to get an
email there. Usually it's only a minute or so.
But if he has got it in front of him, he can go
ahead with those questions.

12 Okay. That sounds -- I will be CHAIRMAN FAY: 13 comfortable if he has got it in front of him. This 14 is to a specific interrogatory, so it's much easier 15 to find. Some of the other ones, we might have to 16 wait for it to actually come in with him, but if 17 you are fine with that, and then we are go to go 18 label this one 180.

MS. CHRISTENSEN: Okay. It's already been
marked for identification as part of staff's -- the
exhibits as 117.
CHAIRMAN FAY: Oh, okay.

23THE WITNESS: And I got it right now. So24that's the time.

25 MS. CHRISTENSEN: Okay.

1 CHAIRMAN FAY: We are all set. Go ahead. 2 THE WITNESS: I got it. 3 BY MS. CHRISTENSEN: 4 So in response to staff interrogatory 0 Okay. 5 109, you cite two water cases, and I think you said one was South Carolina, the other one was North Carolina, to 6 7 support your position that your Predictive Risk Premium 8 Model was relied on and provided excerpts from these 9 orders; is that correct? 10 Α Yes, ma'am. 11 Q Okay. And in the Carolina order, on pages 12 nine and 10, which -- of the interrogatory response, the 13 Commission specifically cites the DCF model, but it did 14 not cite your Predictive Risk Premium Model; is that 15 correct? 16 Α That's right. And it was the portion of the 17 DCF model that they asked for specifically. And if 18 everybody wants to look at it, it's the third line on 19 that Bates page 10, I guess, on the exhibit. 20 It's just saying -- it's confirming that my 21 use of analyst estimates for the DCF analysis is 22 supported by consensus --23 0 Okay. 24 -- and it used the arithmetic mean. Α So it's 25 more of pieces of -- pieces of the analysis that they

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1 used.

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2	Q Okay. So the answer to the question is, yes,
3	they just discussed the DCF model only?
4	A No, because the arithmetic mean model is a
5	part of the risk premium model and the CAPM model. They
6	talk about small size. So there are a bunch of pieces
7	that the Commission discusses, but, yes, you are right,
8	it doesn't specifically say anything about the PRPM, but
9	they do
10	Q Okay.
11	A accept my
12	Q Thank you.
13	Now, let's move to page 12 11 and 12, which
14	is the North Carolina excerpt of that order that you
15	provided. And in that case, they approved a 9.5 ROE for
16	the company in that case, is that correct?
17	A That's right.
18	Q Okay. And they cite to your DCF results of
19	8.81 percent for the CAPM, and a result of nine point
20	or I am sorry, 8.81 percent for the DCF, and a 9.2 or
21	9.29 percent result for your CAPM, and your risk premium
22	model result of 10 percent using current rates in the
23	first paragraph of the second sentence or the second
24	the first sentence of the second paragraph, is that
25	correct?

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Yes, ma'am.

2	Q However, if you look further down in the third
3	paragraph, the Commission specifically found and
4	concluded that the analysis using interest rate forecast
5	rely unnecessarily on projections. The Commission
6	approves the use of current interest rates rather than
7	projected near-term or long-term interest rates.
8	And they go on to further say, the Commission
9	finds witness D'Ascendis late filed exhibit risk premium
10	model and his late-filed CAPM analysis using the current
11	30-year treasury yield to be credible, probative and
12	entitled to substantive weight. Am I reading that
13	correctly?
14	A Yes, ma'am. So in that late-filed exhibit, I
15	took my projected interest rates and I replaced them
16	with current interest rates. In this case, it's
17	Q Okay.
18	A in this case, the difference between the
19	current and expected interest rates are minimal.
20	Q In your Predictive Risk Premium Model uses
21	interest rates that are forecast interest rate
22	forecasts that are projected, is that correct?
23	A They use, but they didn't use the PRPM so
24	if you go back up to the top
25	Q Okay.

1 -- that top little paragraph, that risk Α 2 premium model that they are talking about is the Total 3 Market Approach Risk Premium, not the PRPM with individual companies. 4 5 Let's take a look at your response to 0 Okay. interrogatory No. 112, subpart (a), and that's OPC's 74. 6 7 And that would be your response to staff's interrogatory I believe that also has -- is part of the hearing 8 112. 9 exhibits already marked for identification as 117. 10 So I do think I have it in front of me. Α 11 Q Okay. 12 In part A, please explain for what time period Α 13 the indicated risk premiums in column five and indicated 14 ROEs in column seven are predictive. 15 That's correct. 0 16 Α I just got an email too. 17 Okay. And isn't it correct that you respond 0 18 that, you say, the PRPM model produces a rates of return 19 on equity which is forward-looking in nature and, thus, is not associated with a definite period as is the case 20 21 with other rate of return models? 22 Α Yes. 23 I want to discuss you with a little bit Q Okav. 24 about your discounted cash flow model. 25 In your dis --

1 Α Yes. 2 Okay, I am sorry. I don't want to talk over Q 3 you. 4 Α Oh, I just -- I just -- I am sorry. 5 In the discounted cash flow model, you 0 Okay. use a proxy group of publicly traded gas companies to 6 7 estimate what you believe is an appropriate ROE, 8 correct? 9 I do. Α 10 And you used a steady state growth rate Q because the proxy group you chose is made of more mature 11 12 companies with monopoly territories, right? 13 Amongst other things, there is significant Α 14 amount of testimony regarding, and financial literature, 15 regarding the superiority of using projected ECR growth 16 rates in the DCF. It's not only because -- and it's not 17 in my testimony, but that is what the companies and 18 mature monopolies --19 0 Okay. 20 -- say that I use DCF growth rates because Α 21 investors are looking at them, and it's supported by 22 literature. 23 I do say in my rebuttal --24 Q Okay. 25 -- Mr. Garrett why he shouldn't be using the Α

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1 multistage DCF --2 MS. CHRISTENSEN: Commissioner, could I ask 3 him to respond to the question that I am asking? Ι 4 mean, I don't mind an explanation, but it's getting 5 a little far afield. 6 CHAIRMAN FAY: Sure. 7 Mr. D'Ascendis, so our typical protocol is 8 that you provide a yes or no to a question 9 answered, and then you can provide an explanation 10 And so I think -- I do think there is a to it. 11 little bit of delay, so sometimes, I think when you 12 are trying to clarify a longer explanation, it's 13 just hard for us to kind of let you know that you 14 might be offtrack a little bit, but if you could 15 just try to simplify your answers to that, and then 16 I think that will help keep us better on track. 17 THE WITNESS: Sure. Thank you. I apologize. 18 BY MS. CHRISTENSEN: 19 Okav. And because you claim that PGS is 0 20 different from the proxy group, you make a business risk 21 adjustment and a floatation cost adjustment for PGS, is 22 that correct? 23 Α Yes, ma'am. 24 0 But would you agree that you chose the 25 companies for your utility proxy group that have

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1 comparable risk, is that right? 2 Α Yes, ma'am, but comparable risk isn't 3 identical risk. And like I said in my opening 4 statement, that once you get an indicated ROE, you 5 should then look at it -- look at it in comparison to the proxy group to determine whether or not you should 6 7 apply a relative adjustment --8 Q Okay. 9 -- I made that analysis -- I made that Α 10 analysis and found that the business risk adjustment 11 should be applied, and then because of -- because 12 transaction costs and floatation costs aren't reflected 13 in the models, you have to also apply a flotation cost 14 adjustment to the indicated ROE. 15 So that's -- that's why -- and I am sorry if I 16 am getting long-winded but you asked me to explain why, 17 so --18 Okay. Let me ask you this: 0 The proxy group 19 of utilities, you would agree, that you chose, they also 20 have similar type business risk there, similar natural 21 gas companies you chose to be representative of PGS in 22 your ROE model, correct? 23 I agree with that. But like said, the company Α 24 is smaller, the company experiences higher CAPEX, which 25 is capital expenditures. These are all within my

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1 testimony, my direct and my rebuttal testimony, that that shows the company's risk is unique to the proxy 2 group, and because of that, you have to make a relative 3 4 risk adjustment. 5 And you would agree that the utility proxy 0 group that you chose also has floatation costs 6 7 associated with them when they have to issue debt or 8 anything else, correct? 9 But like I said, they are not reflected Α I do. 10 in the model. So when you run a DCF and a CAPM, they 11 assume no transaction costs, because they don't assume 12 transaction costs, you have to put in the flotation 13 costs. 14 You would agree that a smaller company would Q 15 typically demand a higher return on equity, correct? 16 Α Yes. 17 And you would agree --0 18 Well, all else equal -- I'm sorry -- all else Α 19 equal, a smaller company is riskier than a larger 20 company. 21 Q Okay. 22 Mr. D'Ascendis, just one more CHAIRMAN FAY: 23 time, just ask you to project the best that you can 24 and make sure our court reporter can get it all in 25 I realize that you are virtual, you know, there.

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1	because of this storm, but we still need to make
2	sure we get your comments on the record, so if you
3	could just try to project a little better.
4	THE WITNESS: Sure. I am sorry.
5	BY MS. CHRISTENSEN:
6	Q Would it be fair to say smaller companies face
7	more risk?
8	A Than larger companies?
9	Q Yes, than larger companies, all
10	A All else being equal
11	Q all things being equal?
12	A yes, ma'am.
13	Q And would you agree that the Commission's
14	water formula has an adjustment for risk based on small
15	sizes for water companies, correct?
16	A They do. And they also have a private
17	placement premium, which is equivalent to a flotation
18	cost.
19	Q Okay.
20	MS. CHRISTENSEN: I would ask that we hand out
21	OPC 75, and we will need to mark this for
22	identification. This is a copy of the Commission's
23	Order Establishing Authorized Range of Return on
24	Common Equity for Water and Wastewater Companies.
25	CHAIRMAN FAY: Okay. We will mark this as

1 180. 2 BY MS. CHRISTENSEN: 3 And please let me know when you receive --Q 4 Α I do not have that -- so I will let you know 5 when it comes in. 6 Q Thank you. 7 MS. HELTON: Mr. Chairman, I am sorry, I am a 8 little confused. So the last two exhibits that Ms. 9 Christensen has testified to, we are just going to 10 use the CEL No. 117? 11 CHAIRMAN FAY: Yes, unless you prefer to --12 No, I am fine with it. MS. HELTON: I just --13 I was confused about what we are doing. 14 And then if I could -- I just feel compelled 15 to say, because this is an order of the Commission, 16 it does not need to be marked as an exhibit. This 17 is something that we will, you know, officially 18 recognize, and I am not sure if this is part of the 19 orders that Ms. Christensen had on the motion for 20 official recognition. 21 I don't know whether it was MS. CHRISTENSEN: 22 included in that motion for official recognition. I do realize that it's Commission standard practice 23 24 to recognize their own orders. However, for 25 convenience and the sake of asking questions, I

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provided a copy, and provided it as an exhibit so that everyone can follow along during questioning.

3 CHAIRMAN FAY: Yeah, and I don't have a 4 problem with it either. I guess, to Mary Anne's 5 point, I mean, we either sort of continuously want So even if it is referenced 6 to mark these or not. 7 in another exhibit, if you parsed out a certain 8 portion of it, we could still mark and number it. 9 I think we are at 180 now with this -- with this 10 That's fine. We will move forward, and order. then we will label it as we go, as long as you 11 12 don't have an issue with that, Ms. Christensen.

MS. CHRISTENSEN: No, I am just doing it for ease and to ensure that the record is clear what was passed out.

16 CHAIRMAN FAY: Yeah, I don't -- Ms. Helton, I 17 don't see any procedural issues in just going ahead 18 and label it and put it in. I know that we do 19 recognize these, and that probably goes against 20 that theory, but I don't see any reason not to at 21 this point. 22 So go ahead, Ms. Christensen. 23 MS. CHRISTENSEN: Thank you. 24 CHAIRMAN FAY: I apologize. Mr. Moyle, do you

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1 I just am trying to understand MR. MOYLE: 2 where we are, because 117 was referenced, but now I 3 think we are going to do 180 for the response to 4 interrogatory 109, and 181 for response to 5 interrogatory 112, is that right? I only referenced them back 6 MS. CHRISTENSEN: 7 to the hearing -- the comprehensive exhibit list. Those two are also included in the exhibit that's 8 9 already been marked, and I think it's been admitted 10 as 117. 11 CHAIRMAN FAY: So that's where the confusion 12 We could have continued to number them. is. Ms. 13 Christensen preferred to not mark them at that 14 time, so I gave her deference to do so, but it's 15 obviously caused confusion, and so going forward, 16 we will just mark any cross that we receive, even 17 if it pulls a specific component of a previous 18 exhibit --19 MS. CHRISTENSEN: Okay. 20 CHAIRMAN FAY: -- we will just number it and mark it and move forward so there is no confusion. 21 22 MS. CHRISTENSEN: Fine. 23 CHAIRMAN FAY: So to your point -- to Mr. 24 Moyle's point, so we would be labeling 180 as the 25 original, then 181 as the second excerpt, and 182

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1 would be the order, does that sound correct? 2 MS. CHRISTENSEN: That's fine. 3 CHAIRMAN FAY: Okay. Let me make sure of 4 that. Mr. Thompson, are we good on your end? 5 MR. THOMPSON: That will work. Okav. 6 CHAIRMAN FAY: 7 MR. MOYLE: Thank you. 8 CHAIRMAN FAY: Sure. 9 (Whereupon, Exhibit Nos. 180-182 were marked 10 for identification.) 11 CHAIRMAN FAY: Okay. Ms. Christensen, 12 whenever you are ready, hopefully -- assuming he 13 has the email, I guess that's the --14 BY MS. CHRISTENSEN: 15 Have you received it yet? 0 16 Perfect timing, like, five seconds ago. Α 17 Oh, good. Okay. 0 18 And, Mr. D'Ascendis, are you familiar with 19 this order? 20 Α I am as far as you showing it to me on the --21 during the deposition. 22 Okay. And you would agree that the Commission 0 23 uses a proxy group consisting of natural gas and wastewater and water utilities for its leverage formula? 24 25 I am sorry, I talked over you.

A I do. I do.

2 Q Thank you.

And you would agree that the Commission used a multistage DCF model of publicly traded stock and that are followed by Value Line, is that correct?

A I do, but I don't know the -- I agree that they do a multistage DCF. I do not know their specific growth rates used in those models.

9

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Q Fair enough.

10 And they, for the cap -- capital asset pricing 11 model, do they rely on a market return for companies 12 followed by Value Line, the average projected yield on 13 the U.S. Treasury 30 year bonds as of May 1st, 2023, 14 published by BlueChip, and the weighted average betas 15 for the index of natural gas and water and wastewater 16 utilities?

17 That sounds correct. I think that in their Α 18 market risk premium, they do a similar calculation to 19 mine to find the return on the market, but I don't think it's -- I think it's similar. 20 I don't think it's the 21 same, but I don't have anything to verify that --22 0 Okav. 23 -- but the other -- they are correct, yes. Α 24 0 And let's turn to page four of that order. 25 You would agree that the leverage formula also has a

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1 50-basis-point adder for small utility risk premium built in, as well as a 50-basis-point for private 2 3 placement premium, is that correct? 4 Α Yes, ma'am. 5 Okay. And that private placement premium is 0 equivalent to what you have been discussing as a 6 7 floatation cost, is that correct? 8 Α That's right. So if you agree, subject to check, that if you 9 Q 10 apply the leverage formula at the bottom of page four of 11 this order to PGS at the requested equity ratio of 54.68 12 percent, that the application of this formula would 13 result in a 9.98 -- or sorry, 9.68 ROE, is that correct? 14 Α I wouldn't know because I didn't do the math. 15 I also wouldn't agree that this would be applicable to that because, as I said in the deposition, water 16 companies are not gas companies, and because of that, it 17 18 would not be appropriate to use water companies as a 19 proxy for gas companies. So I don't think -- and I 20 don't think Mr. Garrett or myself used the leverage 21 adjustment as backup for their recommendations in this 22 case. 23 Well, if you look at page 13 of the order, you 0 24 would agree that you used Atmos Energy Corporation and 25 NiSource, Inc., in your proxy group, is that correct?

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1	A You are saying 13?
2	Q Page 13 of the order.
3	A Oh, I am sorry. Okay.
4	Q And am I correct that you also included Atmos
5 1	Energy Corporation and NiSource Corporation as part of
6 5	your proxy group of natural gas companies?
7	A Yes, ma'am.
8	Q Okay. I have no further questions on that
9 0	order. Thank you.
10	A Okay.
11	Q And I want to ask you a few questions about
12 3	your CAPM estimates. You use a CAPM model in your
13 a	analysis, correct?
14	A I do.
15	Q And the CAPM uses the rate of return on the
16 r	market as a whole minus the risk-free rate of return
17 t	times the beta, and then adds back the risk-free rate,
18 :	is that a correct summation of the CAPM formula?
19	A Can you say it one more time so I could so
20 0	could I make sure? But I think you are right, I just
21 7	want to
22	Q Sure.
23	The CAPM uses the return rate on the market as
24 a	a whole minus the risk-free rate of return times the
25]	peta, which is the volatility relative to the market of
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1 utilities, and then adds back in the risk-free rate? 2 Α Yes, ma'am. 3 Okay. Q 4 I agree. Α 5 Q Okay. Great. And one of the key inputs to the CAPM is the 6 7 market risk premium, is that correct? 8 Α It is. 9 And on page two of two of your Exhibit DW-1, Q 10 document five, and I am going to give you -- just take a 11 minute and get there in your testimony while I do the 12 Almost there. same. 13 I am ready when you are. Α Okay. 14 Just give me a moment longer. Q Okay. I am 15 trying to find the -- okay, I am there as well. 16 Okay. On page two of two of document five of 17 your exhibit to your testimony, you combine measures 18 such as historical stock data going back 100 years, and 19 projected stock returns for three to five years to 20 create your implied market risk premium, is that 21 correct? 22 Α There is a little bit more nuance to that, but 23 I use -- I use fixed measures -- well, I don't agree, I And then generally, I used fixed measures of the 24 quess. 25 risk premium, the market risk premium to derive my

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1 market risk premium, I agree with the historical data 2 from Kroll. The other -- two of them use measures from 3 Value Line, and the last measure uses measure from --4 Right. And then you --Q 5 Hold on one second, Ms. CHAIRMAN FAY: Christensen. 6 7 Mr. D'Ascendis, if you can repeat the last 8 part of your answer, and I am sorry to hound this, but if you can just project a little bit louder 9 10 just to make sure we can get your responses. It's 11 just we are having a little trouble hearing you. 12 THE WITNESS: Yeah. I am getting an echo from 13 when I am talking, and I think it's because I am 14 hearing the hearing room and what I am saying, so 15 there might be a double feedback type thing there. 16 CHAIRMAN FAY: Well, we can hear you okay, 17 it's just you are a little bit muffled and a little 18 bit soft, and so if -- and you might be getting 19 that feedback but we are not in the hearing room, 20 so if there is any way you can just speak up a bit 21 I think it would help our court reporter. 22 THE WITNESS: All right. 23 CHAIRMAN FAY: And you -- Mr. D'Ascendis, just 24 real quick. You are not using speaker for your 25 audio, correct?

1 THE WITNESS: What's that? 2 CHAIRMAN FAY: You are not using the speaker 3 on the phone or the computer for your audio, you 4 are using earphones, correct? 5 I have a microphone here. THE WITNESS: No. I think that's a little bit 6 CHAIRMAN FAY: 7 better. Yeah, I quess the question is how are you 8 getting your audio? 9 THE WITNESS: Oh, I am getting it straight 10 from the computer. 11 CHAIRMAN FAY: Okay. So if you put headphones 12 in, I think would get rid of that feedback for you. 13 I'll make do, I quess. THE WITNESS: I am 14 more -- if you quys can hear me, I am fine with it. 15 CHAIRMAN FAY: Okay. We can hear you, just I 16 promise you, we just -- if you just speak up. Ι 17 mean, I don't know if you have neighbors, but if 18 you can just project a little bit louder, then I 19 think we would be all right. 20 I don't want to already seem --THE WITNESS: 21 I don't want to seem more combative than I already 22 am, so I will try to speak louder. 23 CHAIRMAN FAY: You are not, you are really --24 that's better. We appreciate it. 25 So I will restart the THE WITNESS: Okay.

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1 answer. 2 Like I said, there were -- I had three 3 measures, three of them are measured using Kroll 4 historical data, two measures that are measured by 5 Value Line data, and the last measure is measured by Bloomberg data. 6 7 BY MS. CHRISTENSEN: 8 Q Okay. And you said the Kroll is historical 9 data, and that's data that goes back 100 years, is that 10 correct? 11 Α It goes back -- the data that I use goes from 12 1926 to 2021. That is not 100 percent years but it's 13 close to it --14 Okay. Q -- I think there -- I think -- and there is 15 Α 16 plenty of, I quess, academic literature that talks about 17 the predictive power of a long-term average of a random 18 string of data, which market returns are a random string 19 of data. 20 All right. But that's -- so it's 97 years 0 21 worth of data? 22 Α Around there. 23 Okay. And then you also said that you used 0 Value Line, and that Value Line is current, or three to 24 25 five market -- three to five years worth of market

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1 projections, correct, for the Value Line data that you 2 used? 3 Α Yes, ma'am, that seems right. Measure 4 uses 4 three to five years on the Value Line depreciation 5 potential, and then if you are using the market return as of market type DCF, that would be a three- to 6 7 five-year growth rate, so --8 Q Okay. And then just to be clear, you use the 9 results of those six measures that you have created to 10 come up with an average of your risk premium that you 11 used in the model, is that correct? 12 Α That's right. 13 And that risk premium that you used, or you 0 14 chose to use for your model, was 9.75, correct? 15 Α It was, yes. 16 0 Okay. And you have reviewed Mr. Garrett's 17 testimony in this proceeding, correct? 18 Α Yes, ma'am. 19 MS. CHRISTENSEN: Okay. And I would ask to 20 pass out OPC Exhibit No. 76. 21 BY MS. CHRISTENSEN: 22 If you have Mr. Garrett's testimony available 0 23 to you, I would ask you to look at page 55 of his 24 testimony. It will likely be quicker. 25 Okay. CHAIRMAN FAY: And we are going to mark

1	this 183.
2	MS. CHRISTENSEN: Thank you.
3	(Whereupon, Exhibit No. 183 was marked for
4	identification.)
5	THE WITNESS: Okay.
6	BY MS. CHRISTENSEN:
7	Q Okay. Looking at Mr. Garrett's testimony, you
8	are aware that the average market risk premium reported
9	in the IESE Business School expert survey cited in Mr.
10	Garrett's testimony is only 5.7 percent, is that
11	correct?
12	A Yes, ma'am, but I don't agree with the use of
13	surveys in my end use for cost of capital purposes, nor
14	has Mr. Garrett provided any academic support that
15	surveys are an appropriate measure of the risk premium.
16	Generally, I have a response to the use of surveys on
17	pages 35 through 37 of my rebuttal testimony.
18	Q Okay. So in your rebuttal testimony, you
19	cited several points raised by Dr. Damodaran that are
20	critical of expert survey results, which I think you
21	just mentioned, correct?
22	A That's right.
23	Q Are you aware that Dr. Damodaran recently
24	estimated an average market risk premium of only 5.1
25	percent for May 2023?

1	A I do, and I and I also have an issue with
2	Dr. Damodaran's implied ERPs. No. 1, he uses as his
3	long-term growth rate, he uses the 30-year average T
4	bond for the last 30 days. So he uses the 30-day
5	average T bond for growth into forever. It is
6	unreasonable to use that. You can see over the last
7	several years that that would come up with wildly
8	unreasonable wildly different results, so I don't
9	agree with it. And like I said, I have it in my
10	rebuttal testimony
11	Q Okay.
12	A and that would be pages 38 through 42
13	Q Okay.
14	A 43 in my rebuttal testimony.
15	Q As part of your ROE analysis in this case, you
16	cite to data published by a company called Kroll, which
17	was formally called Duff & Phelps, is that correct?
18	A Yes, ma'am.
19	Q Are you aware that Kroll published a market
20	risk premium of only six percent, as cited to by Mr.
21	Garrett in his direct testimony?
22	A I do.
23	Q And are you also aware that Kroll recently
24	calculated the market risk premium of 5.5 percent?
25	A I don't agree with the term calculated.

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A Kroll's -- Kroll's one -- and the reason is this is, Kroll's recommended market return and return on the market that they publish, they don't calculate, does not show any type of calculation. It's just an up or down difference between a whole bunch of factors that is not observed or observable by the general public.

8

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Q Okay.

9 A When you look at what historical data that 10 Kroll publishes, it is easily -- easily observed and 11 absorbable. The way that they do those, it was an 12 intense study, the historical studies, they are all 13 backed up by academic literature that Kroll recommended 14 market risk premium that just frankly isn't, and it 15 shouldn't be used at all by anybody.

Q All right. Well, let me ask you this: You would agree, then, that they recently published a recommended market risk premium of 5.5 percent?

19 A I agree to that. Yes.

20 Q And would you also agree that no other 21 professionals, other than the professionals at your 22 firm, use this total risk premium market approach that 23 you have adopted in this case?

A I agree that they don't use it in the way that I use it, but I would say that other ROE witnesses use

1 So generally -- and I will -- I facets of the approach. 2 will stop there. But generally they don't use the 3 combination of the approach that I do. Some use -- some 4 use the regression analysis, some use a buildup method, 5 things like that, so -- but there are ways, but I just add them all together. 6 7 Q Okay. 8 Α And from what -- and from what I say in my 9 opening statement is that multiple models are better. 10 They provide you more insight to the cost of equity. 11 Q Okay. So you agreed with me that nobody else 12 uses the PRMP the way that you use it, correct? 13 I wouldn't say the way. Α Yes. I would say 14 that I don't -- they don't combine it the way that I do. 15 Q Okay. Fair enough. 16 Α They give assets and models -- assets in the models people use, just all of them at once, I don't 17 18 anybody does. 19 0 Okav. Fair enough. 20 Let me refer you to your rebuttal testimony on 21 page nine, and let me know when you get there. 22 Α Yes, ma'am. And starting on page nine, line 25 23 Okay. 0 through page 10, line six, this is where you have your 24 25 criticism of witness Garrett's testimony, and you say

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1 that witness Garrett argues that the Commission should 2 apply the ratemaking concept of gradualism to move 3 Peoples' ROE higher than his purported ROE based on his analytical results because he recognizes that the ROE, 4 5 if implemented, would be confiscatory and illegal, and he needs a different policy argument to avoid the 6 7 results, citing to pages seven and eight of his direct 8 testimony; is that correct summary of your testimony?

9 A It is, but I am going to turn to seven and 10 eight really quick to see.

11 Q Yeah, if you can -- I would ask you to go to 12 Mr. Garrett's testimony, pages seven, and let me know 13 when you are there.

14 A I am there.

15 Okay. And wouldn't you agree that what Mr. 0 16 Garrett actually said on -- in his direct testimony, at page seven, lines 18 through 21, is the reason that he 17 18 recommends his 9.0 percent rather than his CAPM results 19 of 8.5 percent is primarily due to the fact that PGS's 20 current awarded ROE of 9.9 percent it significantly 21 exceeds any reasonable estimate of the company's 22 market-based cost of equity. So one could argue that 23 it's preferable to -- for awarded ROEs to gradually change rather than abruptly; is that a correct summation 24 25 of his actual testimony?

1 Α Yes, ma'am. Now, I don't agree with 2 gradualism in a ROE sense --3 CHAIRMAN FAY: Mr. D'Ascendis --4 MS. CHRISTENSEN: That goes beyond --5 CHAIRMAN FAY: -- if I could interrupt you just real quick. If you could try to answer, and 6 7 if you need to provide clarity, you can do so, but, 8 you know, do your best to try to answer yes or no 9 on these. 10 BY MS. CHRISTENSEN: 11 Q Okay. And isn't it --12 Yes, I said yes, and I apologize if it didn't Α 13 come through on the microphone. 14 CHAIRMAN FAY: Okay. 15 BY MS. CHRISTENSEN: 16 Okay. And isn't it also true that he further 0 explained that an awarded ROE of 9.0 percent would 17 18 partially mitigate the excess transfer of wealth from 19 Florida customers to shareholders while gradually moving 20 the company towards an actual market-based ROE? 21 That's what he says. I don't agree with it --А 22 0 Okay. 23 I mean, that's -- that's the -- I do not. Α 24 words that he said. I don't agree with it, because 25 gradual -- cost of capital is a point of time

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1 measurement, not a gradual measure. 2 Q Okay. In referring back to your testimony, 3 your rebuttal testimony at page nine again, and let me back there, and looking specifically at lines seven 4 5 through 15. 6 Α Yes, ma'am. 7 Okay. And that is where you also criticize 0 8 Mr. Garrett's use of gradualism in the 20200051 case, 9 and you say his analysis indicated a market-based ROE of 10 6.9 percent, yet he recommended a 9.5 percent ROE, 11 citing to page 13 of that testimony in your footnote 12 six, is that correct? 13 Α Give me a second. Yes, ma'am, that's what it 14 says. 15 MS. CHRISTENSEN: Okay. And I would ask to 16 have OPC 77 passed out. 17 CHAIRMAN FAY: Okay. 184, Ms. Christensen? 18 Yes, please. MS. CHRISTENSEN: 19 (Whereupon, Exhibit No. 184 was marked for 20 identification.) 21 BY MS. CHRISTENSEN: 22 And please let me know when you receive the 0 23 email. 24 Α It might be a while -- oh, no, we got it. 25 We are improving gradually. 0 There we go.

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1 Okay. 2 Α Well, that might be the only way that 3 gradualism works, but, yeah, we have it. 4 Q Okay. And can you take a look at that? Are those pages, page 13 and I sent -- I think -- I believe 5 I also sent you 14. Are those the pages in that order 6 7 that you cite to in your testimony, specifically the 8 page 13? 9 Α Yes, ma'am, and --10 Okay. And is --Q 11 Α -- what I am -- what I am looking at what you 12 just sent, because, you know, it takes a little bit of 13 time to refresh your memory. 14 All right. Go ahead. I was going to ask, if page 13 -- there is a 15 0 16 question on page 13, and he says: Please summarize your recommendation for the company. And you would agree 17 18 that his response to that question continues on the rest 19 of page 13 and is fully completed on page 14, is that 20 correct? 21 Α And if you look at lines 11 through 14 Yes. 22 of that, and it reads: If the Commission were to make a 23 significant sudden change in the awarded ROE anticipated 24 by regulatory stakeholders, it would have the 25 undesirable effect of notably increasing the company's

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1 risk profile, and would arguably be at odds with the 2 Hope court's end result doctrine. 3 So when you -- so -- so -- I mean, I know that I may have -- it's not in Mr. Garrett's testimony in 4 5 this case, but he is aware that an ROE at the level of what he is recommending in this case, or what his true 6 7 ROE, or the measures of his models are, are enough to be 8 at odds with the end result doctrine. 9 Well, and what he is specifically saying is Q 10 that the sudden move to a market-based ROE would create 11 a shock to the market. Isn't that exactly what his 12 testimony on gradualism is about talking about? 13 Like I said earlier, gradualism is not an ROE Α 14 It's a rate design concept. concept. 15 ROE is a measurement of an investor required 16 It would be that return at that return at that time. You can't then say, oh, well, it might be 17 time. 18 something else, but we are going to say that it's this 19 now, because when the investor puts their money down, 20 they are requiring that return at the time they put the 21 money down --22 Well, wouldn't you also have to --0 23 Α -- they talk about -- so when you are talking 24 about gradualism, it just doesn't exist in ROE, so --25 Well, doesn't --0

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1	A the number is the number. So if the number
2	is the number, if Mr. Garrett believes that
3	MS. CHRISTENSEN: Can
4	CHAIRMAN FAY: Mr. D'Ascendis Mr.
5	D'Ascendis, I think you answered the question. I
6	think Ms. Christensen has a follow-up.
7	THE WITNESS: Okay.
8	MS. CHRISTENSEN: I just have a couple of
9	follow-ups.
10	BY MS. CHRISTENSEN:
11	Q In the case of looking at the market, isn't
12	the market, in a regulated environment, include looking
13	at what awarded ROEs are in that marketplace that have
14	been awarded by a commission?
15	A Imean, I I
16	MR. MOYLE: Yes/no?
17	BY MS. CHRISTENSEN:
18	Q Is that a yes, or would you agree with that or
19	disagree with that?
20	A It's a sticky question, because it depends on
21	whether or not the market conditions are the name as the
22	recent past. So when you are looking at authorized
23	returns, and you are looking at the current required
24	return, if the if the current state isn't like the
25	past state, then you are looking at a misspecification
1	

1 of the return requirement. So while it can be a valid benchmark during calm periods, I don't think that it --2 3 I don't think it's a good measurement this period. Ι 4 think actually the --5 Well, that was -- that actually wasn't my 0 And when you actually are looking at the 6 question. 7 ROEs, you have to consider the awarded ROEs in a 8 regulated utility environment when you are making a 9 recommendation for ROEs in front of a regulated utility, 10 or regulatory commission, correct? 11 Α I disagree with that. 12 And were you aware that in Docket No. Okay. 0 13 20080318-GU, PGS was awarded an ROE of 10.75, which was 14 right after the 2008 crash? 15 Α I did not know about that, but like I said, 16 that was the authorized or required return at that time, so it's not one of those things where they are 17 independent pieces of data. 18 19 MS. CHRISTENSEN: Can we -- can I just have 20 one second? 21 CHATRMAN FAY: Sure. 22 I have no further questions. MS. CHRISTENSEN: 23 Okay. Mr. Moyle. CHAIRMAN FAY: 24 THE WITNESS: Thank you. 25 Thank you, I have some questions MR. MOYLE:

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1	for the witness.
2	EXAMINATION
3	BY MR. MOYLE:
4	Q You had mentioned you are unable to appear
5	with us in person because of a storm. Where are you
6	located physically?
7	A I am in New Jersey, Mount Laurel.
8	Q And the storm you are referencing is the
9	hurricane that came through Florida a few weeks ago?
10	A Yes, sir.
11	Q In response to a question previously, you
12	referenced a document that I believe you said was part
13	of cross-examination of a witness earlier. Do you
14	recall that?
15	A Yes, sir. I think you are the one who
16	presented it
17	Q And
18	A but, yes, I recall talking about it. Yes,
19	sir.
20	Q Okay. And let's just make sure that we are
21	clear on the record as to the document, because I want
22	to ask you a couple of questions about it. So could you
23	identify it, or maybe
24	MR. MOYLE: Do you guys think this is still
25	confidential, this document, this ROE document?

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1 MR. MEANS: I mean, to the extent that Ms. 2 Wesley articulated some of the contents of it, I 3 would agree that those aren't confidential anymore. 4 MR. MOYLE: Right. But I mean, I think the 5 whole document, in my review, is largely ROE based on previous decisions entered in -- entered by 6 7 commissions. 8 MR. MEANS: Mr. Chairman, can we have just a 9 second? 10 CHAIRMAN FAY: Yeah. You need a minute to 11 review it? 12 Yes. Thank you. MR. MEANS: 13 CHAIRMAN FAY: Okay. Mr. Moyle? 14 MR. MOYLE: Yes. 15 CHAIRMAN FAY: Okay. 16 Mr. Chair, thank you for the MR. MOYLE: 17 opportunity to have a brief conversation with 18 counsel for TECO. We've discussed this page of the 19 document, and they have agreed to withdraw the 20 classification of confidential for this page only. 21 So I think we are -- for the record, I will 22 identify it. I believe the witness has a copy of 23 it, and you all have a copy of it, but we will make 24 clear that it is not a confidential page of this 25 document going forward.

1 CHAIRMAN FAY: Sure. And, Mr. D'Ascendis, did 2 you fully understand that, so just this specific 3 page is what counsel has referred to as not being 4 confidential. Everything else that still falls 5 within that exhibit would be confidential still? Yes, Mr. Chairman. 6 THE WITNESS: I don't have 7 I just got a snapshot from it from any other page. 8 counsel while Ms. Wesley was being crossed this 9 morning. 10 CHAIRMAN FAY: Okay. 11 MR. MOYLE: Okay. And just for the record, 12 it's, what has previously been marked as OPC 13 Exhibit 4. I believe it's also Exhibit 174. And 14 the page in question is OPC page four, and it has a 15 Bates number of 020582. It's entitled, Rate Case 16 Decisions, Return on Equity. 17 BY MR. MOYLE: 18 Sir, I believe -- I made a note when you were 0 19 being asked questions about this previously, and what 20 is -- what is your view as to what the average ROE was 21 in the year 2022? 22 So in reviewing this document, I went to Α Regulatory Research Associates, which was the source of 23 24 this graph, to see whether or not -- to check the low 25 and the high to make sure that it was correct, and it

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1 wasn't correct. 2 So you said 9.6 based on independent review Q 3 that you did over the lunch hour? 4 Α I mean, I could share my screen. I have the 5 source data open right now. But -- but the -- so the 2022 gas authorized ROEs ranged from 9.0 to 10.20, and 6 7 that midpoint is 9.6 instead of 9.4. 8 Q Yeah, that would be great if you could share 9 your screen. 10 Now, I pulled up both '22 and '23. Α Sure. Ι 11 am not allowed to share as of right now. 12 So on -- we were just talking about 2022, 0 13 right? 14 Yes, sir, but I can't share my screen. Α Ι 15 could provide it to you in a late-filed exhibit if you 16 want. 17 MR. MOYLE: All right. Why don't we keep this 18 as an open item. I will work with counsel to see 19 if I have any questions based on this new 20 information. 21 CHAIRMAN FAY: Yeah, if we can go -- move on 22 and then see if --23 MR. MOYLE: Okay. CHAIRMAN FAY: -- it's something that needs to 24 25 be submitted, we can address it then.

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1 BY MR. MOYLE:

2 Q Do you know why there was this discrepancy? 3 Did you ask PGS, this document was prepared for a 4 February meeting, you know, why didn't you get the right 5 number?

Well, I just got it, so I didn't. 6 Α But if you 7 look at the electric authorized ROEs, the low in 2022 was 7.85 for an Illinois formula rate plan case. 8 So I 9 have the suspicion that it was an electric case on that 10 2022, but I didn't verify any other ROEs going back over 11 that period, so I don't know for sure, but I would think 12 that that 7.9 is applicable to a formula rate plan ROE 13 for an electric company in Illinois.

Q When you are determining an ROE, do you look to try to group together natural gas companies kind of in one bucket and not include electric companies, or either directly or indirectly in any way, shape or form?

A So usually, when you are putting together a comparable group, you want it to be comparable in business risk, so that would automatically disqualify electric companies as a comparable company.

Q But in years past, when PGS was before the Commission, the way they were quarterly structured, they had both electric and natural gas under the same parent, correct? A That's true, but each company would have their own cost of capital, given their -- given their different business risks. I wouldn't say that they are -- any of them are higher or lower in risk. They are just different.

And when you are talking about setting rates, they didn't come in together. They came in separately. So the Commission is setting rates for the gas company in one case and the electric company in that case, so you wouldn't want to use the resulting capital one way or the other.

Q So I take it from that answer, for the proxy group that you used, that none of the proxy companies have any interest in electric companies, either directly or indirectly?

16 A I think NiSource may have some electric 17 utilities, but generally it's a gas company. It's 18 specified as a gas company in Value Line -- in Value 19 Line. I guess the different Value Line group that you 20 get in division companies.

21 Q Did you weigh that factor differently when you 22 were doing your analysis, that it had electric company 23 operations within that member company of your proxy 24 group? 25 A No, sir, because when I selected -- when I

1	selected my proxy group, I have a bogey or a treat
2	criteria on a certain amount of regulated gas
3	distribution operations.
4	Q Did you find any other errors on the rate case
5	decisions return on equity document?
6	A Like I said, I only when I saw that 7.9 on
7	the 2022, I just wanted to verify that. I didn't look
8	at anything else other than that. And actually, I
9	looked at 2023, and I already discussed that.
10	Q You would agree that in your experience of
11	serving as an expert, that the cost of debt is less than
12	the cost of equity, correct?
13	A Generally, yes. It depends on the risk of the
14	company and how levered they are generally.
15	Q But as the Chair has indicated, you know, you
16	are in the yes category on that, generally speaking?
17	A Generally, yes
18	Q Okay.
19	A I would agree with it.
20	Q Okay. And I am going to try to move along a
21	little bit on our questions, so yes, no, if I feel like
22	I need an explanation, I will pursue it. If counsel for
23	PGS feels like they need an explanation, they will ask
24	you on redirect.
25	CHAIRMAN FAY: Yeah, Mr. D'Ascendis, I know
1	

1 it's hard virtually to kind of get a read on that, 2 but if you can just give us, you know, a yes or no 3 and a brief clarification if needed, because I know 4 we've got witness Watson today too, and I just want 5 to make sure we get through everything. 6 THE WITNESS: Sure. 7 CHAIRMAN FAY: Okay. 8 BY MR. MOYLE: 9 Just to confirm, the current ROE that PGS has Q 10 is among the leaders in the country, correct, in terms 11 of being highest? Yes, no? 12 Α No, it's not. No. 13 If the Commission adopts your recommendation, 0 14 which is that the top end of 11 percent with 100 basis 15 points, would that be the leader in the country for PGS, 16 a 12-percent return? 17 Well, I am recommending 11 percent. Α 18 Do you have 100 basis points associated with 0 19 Yes, no, 100 basis points? it? 20 That's not my recommendation. Α Μv 21 recommendation is 11 percent. 22 So you don't think that a gap of 100 basis 0 23 points should be part of what this commission would 24 decide? 25 Generally, I don't -- I know that's how the Α

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1	Commission rules, but my point estimate is 11 percent.
2	Q And would that put Florida and PGS at the top
3	of the range as a national leader on ROEs for gas
4	companies?
5	MR. MOYLE: Yes, no yes, no, please, Mr.
6	Chair. Mr. Chair
7	CHAIRMAN FAY: Mr. D'Ascendis, yeah
8	MR. MOYLE: Could he just give me a yes, no,
9	please?
10	CHAIRMAN FAY: Yes.
11	Hold on, Mr. D'Ascendis. One second.
12	So, Mr. Moyle, I appreciate us wanting the
13	efficiencies. There may need to be a clarification
14	to the premise of your question, and so if it's a
15	general question of where would this put this, he
16	might have to say, based on the context of what you
17	are asking in that question.
18	Now, I understand your point about him going
19	on and on after a yes or no question, so we
20	obviously want to minimize that, but I do think he
21	should be given the opportunity to understand the
22	question.
23	MR. MOYLE: How about if I rephrase and see if
24	I can
25	CHAIRMAN FAY: Perfect.

1	MR. MOYLE: get him to give me a yes or a
2	no.
3	BY MR. MOYLE:
4	Q Your recommendation of 11 percent based on
5	return on equities provided, would that put Florida at
6	or near the top of ROEs for natural gas companies
7	nationally?
8	A Did you say at or near?
9	Q At or near.
10	A I don't know.
11	Q Do you track ROEs that are issued by regulated
12	bodies around the country on a realtime basis?
13	A Generally yes, but there are the tracking
14	services that I use are limited in scope, and if you
15	want me to keep going.
16	Q No. No. I will just do a quick follow-up.
17	So would that lead you to conclude that the
18	tracking services don't have the best information
19	available with respect to ROEs?
20	A I would say that they have the best tracking
21	available to ROEs, but they don't they don't pick up
22	all of the pie.
23	For instance, Regulatory Research Associates,
24	they only follow a case when the company requests a rate
25	change of at least five million, or has an authorized

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1 rate change of at least three million. 2 So because there are several companies that 3 don't fit that criteria, I don't know for sure whether or not PGS would be the leader, or at the top authorized 4 5 ROEs for gas companies. Based on your experience, is a rate increase 6 0 7 of 130 million near top of a range for a gas 8 transmission company? 9 Α The company we are at is a distribution 10 company, correct? 11 Q That's right? 12 A transmission company is not --Α 13 Distribution company. 0 My bad. 14 Α I don't -- I don't follow the rate increases, 15 so I don't know the actual dollars. 16 0 Could you -- you were asked some questions about the PSC's approach to ROEs with respect to water 17 18 Do you have an understanding of that? cases. 19 Α Yes, sir. 20 And my understanding of it is, is that, Q 21 generally, it follows a formulaic approach, is that 22 consistent with your understanding? 23 It is, but they do have periodic reviews of Α the formula whether or not it produces reasonable 24 25 results.

1 0 Okay. In response to one of my earlier 2 questions when we were talking, you had referenced an 3 ROE that was derived by using a formulaic approach. Ι 4 take it from that answer that you are aware of other 5 regulatory bodies that use formulas for determining ROE, is that fair? 6 7 Α Yes, but --8 Q Okay. Thank you. 9 MR. MOYLE: That's all I need. 10 CHAIRMAN FAY: Okay. 11 BY MR. MOYLE: 12 I am curious, given that there is a way to 0 13 apparently do ROEs through a formulaic approach, maybe 14 even an algorithm or Chat GP, tell me the role that judgment plays with respect to determining -- in your 15 16 work, in what you have done in this case, tell me -tell me the role that judgment plays in making a 17 18 recommendation to the Commission of an ROE? 19 Α Now, this isn't a yes/no question. 20 That's right. I have opened myself up 0 No. 21 widely here, so go ahead. 22 Α Okay. All right. So, I mean, generally, 23 judgment takes into -- come into play when you are looking at several different model results. So like I 24 25 said in my opening statements, I use multiple models. Ι

will use my DCF model, my CAPM model, my risk premium
 models. Those models applied to nonregulated proxy
 group companies.

4 Other witnesses have other models and they 5 believe other things, and they have their -- and those 6 models, you hit a range of reasonable, and then when you 7 look at market conditions, the distribution of the model 8 results --

9 Q Okay.

10 A -- you use judgment to recommend an ROE.

11 Q I was taking a look at your testimony, and I 12 think I have an understanding of the process, so thank 13 you for that answer.

14 One follow-up. The nonregulated proxy group, 15 why -- if you are trying to determine ROEs for natural 16 gas distribution companies, why you would use a nonregulated proxy group as compared to looking at 17 18 regulated gas companies, if you could find that 19 information? Is the answer to that because, well, most 20 of them are embedded in larger holding companies and you 21 can't get at that information in and of itself? 22 Well, I quess it's a two-parter, right? Α 23 So you are first question was why do you use a 24 non-req, and then the second one -- and non-req meaning 25 nonregulated company -- and then the second part was,

why don't you just look at operating company ROEs, were
those the two parts?

Q That's right.

The first -- the first one regarding 4 Α Okav. 5 the nonregulated companies, when you are looking at the nature of regulation, it is supposed to be a substitute 6 7 for competition. And so then when you are looking at the corresponding risk standard, you would be able to 8 9 measure an appropriate rate of return if you could find 10 comparable companies. And it doesn't matter whether or 11 not it's a utility company or whether it's not a utility 12 company.

13

3

O Okay. The document --

A When you look at -- when you look at certain measures of risk -- and then I will cut this one short because I didn't rec -- I didn't use it in my case and in my recommendation. But if you could find those companies then you could use them as an appropriate measure.

For the second part, for the regulated subsidiary portion, you don't have market data. A lot of the -- a lot of the realized rates of returns are accounting based, and they wouldn't be responsive to the needs of the market, so you can't really use accounting measures, or things like that, when you measure an ROE

1 for a company because the ROE is market-based. 2 Q Back to the exhibit that we have been 3 referencing that was declassified with respect to return 4 on equity --5 Α Yes. -- it says in that exhibit that this graph 6 0 7 illustrates ROE percentages from 2013 through 2022 for 8 natural gas local distribution companies across the 9 To me, that reads as that's a natural gas nation. 10 distribution group of companies that were looked at, 11 would you agree with that? 12 In don't -- I don't Α Can you rephrase it? 13 understand it. I didn't understand your question. 14 You have a copy of this exhibit, do you not? Q 15 Α Yes, sir. I am looking at it. 16 0 And it was sent to you over the lunch hour, is 17 that right? 18 During the cross of Ms. Wesley. Α 19 0 Okav. The second sentence says that this is a 20 comparison of natural gas local distribution companies. 21 Do you have any reason -- I mean, do you disagree with 22 that? You just think that's not what this document is? 23 Α I agree that it's the intent of it. Ι don't -- like I said, the 2022 is wrong. 24 The 2022 data 25 is wrong.

1 And that's the only area you have 0 Okay. 2 identified, one company you believe, correct? 3 No, because the top end of the range is wrong, Α 4 too, right? The top end of the range is 10.2, not 9.9. 5 Do you believe that it's relevant and material Q information to look at information like this, with 6 7 respect to return on equity, what other jurisdictions 8 have done? And yes, no? 9 Α I think it's a -- no, because -- no, 10 because --11 Q That's all I need. You can -- you can just 12 tell me -- you can just tell me this document that was 13 given to the Board of Directors for their review about 14 ROEs is not relevant and not important to ROEs, so I am 15 okay with that. 16 Α Well, that may be different, but when you are looking at it going forward, when you are looking at the 17 18 ROE going -- when you are looking at the ROE going 19 forward, that's not a good measure. 20 When you did your evaluation with the risk 0 21 associated with PGS, did you look at the specific 22 operations of PGS and try to make a risk determination 23 based on their specific facts and circumstances? Yes, 24 no? 25 I did. I did. А

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Q Okay. So with respect to their most significant risk, what did you determine their most significant risk to be?

A Well, if you take a look at -- in my direct testimony, if you take a look at Documents 9 and 10, that was my relative risk analysis of the company as compared to the proxy group.

8 Now, there were two things that I focused on. 9 The first -- the first thing was size. And as you can 10 see on page one of document nine, Peoples Gas is 11 significantly smaller than the proxy group, and the 12 indicated size adjustment from that measure was 62 basis 13 points.

14 Now, if you look at document number 10, the 15 other measure that I looked at compared to the proxy 16 group, or the company compared to the proxy group, was its growth as measured by its capital expenditures, or 17 18 CAPEX, relative to net plant. And on page one of 19 document number 10, it shows that the company has higher 20 capital expenditures relative to net plant than the rest 21 of the proxy group. So from that, I made an adjustment 22 from David's points to account for those relative risks 23 compared to the proxy group.

Q You cite some Standard & Poor's and Moody's in your testimony. You are familiar with the rating

1 agencies and the role they play? 2 Α Not as well as Mr. McOnie, but I am familiar, 3 yeah. 4 You would agree that rating agencies, Q Okay. 5 when they issue a downgrade of a company, that directionally that impacts the ability of the company to 6 7 obtain debt by putting upward pressure on the market 8 interest rates that can be obtained, correct? Yes, no? 9 I would agree with that, but there is Α 10 additional -- there is additional factors to that. 11 Q I will let your counsel ask you about that on 12 redirect. 13 Α We are on the same page. 14 I have a question with respect to the proxy Q 15 You used -- you spent time looking at capital group. 16 structure, have you not? 17 Let me see if I have it in my direct or my Α 18 rebuttal testimony. Yes, if you take a look at document 19 number two, pages two and three --20 Right. Q 21 -- you will see the capital structures of the Α 22 proxy group --23 And what are you -- what are you recommending? Q 24 -- subsidiaries. Α 25 Tell me -- tell me what you are recommending 0

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1	for the capital structure.
2	A I didn't recommend the capital structure. I
3	deemed the reasonableness of it. I supported the
4	capital structure. I didn't recommend the capital
5	structure.
6	Q So what is your understanding of what it is?
7	A What it is what the company's request is
8	Q Right.
9	A is that what you are asking?
10	Q Yes.
11	A So they are asking for a capital structure
12	which consists of 40.48 percent long-term debt it,
13	4.4 or 4.84 percent short-term debt, and 54.68
14	percent equity.
15	Q So roughly speaking, 54 equity, 46 debt, both
16	long-term and short-term?
17	A That's fine, generally, yes, I agree.
18	Q And in your research, you identified within
19	your proxy group a company that has a 33 percent equity
20	component, is that right? Page 24, line 13 of your
21	direct.
22	A You could also look at document number two,
23	page two of three. That has the same thing, but in
24	number form.
25	Q Right. And if includes a company with a

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1 33-percent equity ratio, correct? 2 Α It does, sir. 3 Q It does? 4 Α That's what I said. Yes. 5 I am having a little difficulty with the Q audio. 6 7 And then on page 25, line three, you 8 reference, I believe it to be another company, because 9 you say that it is a closely held operating utility 10 subsidy that has a 38-percent equity component, is that 11 right? 12 Yes, sir, but the point of the exercise is Α 13 that the companies within the range set by the proxy 14 group and their regulated subsidiary companies. 15 Q During your research, did you spend any time 16 looking at a company called SeaCoast? 17 Α No. 18 MR. MOYLE: Okay. Those are all the questions 19 I have. 20 CHAIRMAN FAY: Okay. Staff. 21 THE WITNESS: Thank you. 22 EXAMINATION 23 BY MR. THOMPSON: 24 0 Good afternoon, Mr. D'Ascendis. How are you 25 doing?

1 Good afternoon. Α Right there at the end of your cross with Mr. 2 Q 3 Moyle, we were talking about capital expenditures and 4 net plant. I want to return back to that real quick. 5 Α Yes, sir. So one of the factors in your analysis was 6 0 7 this ratio of projected capital expenditure relative to 8 net plant? 9 Α Yes, sir. 10 And specifically, you testified on direct that Q 11 Peoples' capital investment plans made them riskier than 12 the proxy group in part because of this --13 Α Yes. 14 Is that in part because of this ratio? Q 15 Yes, and it's more about when you are -- when Α 16 you are expending capital, you have to raise capital, and the more that you raise, the more risk you have of 17 18 defaulting on that capital. 19 So that's a yes, that Peoples, in your opinion 0 20 is riskier because --21 Α Yes. 22 And partly as a result of that Okay. 0 23 additional risk, you recommended an upward adjustment to 24 the ROE of 20 basis points, is that correct? 25 That, and the size. Yes, sir. Α

1 Logistically, do you have access to 0 Okay. 2 Case Center or no? 3 Α I do. 4 MR. THOMPSON: Okay. And for the parties in 5 the room, I am going to be using Case Center and pushing out page direction for everybody. 6 7 THE WITNESS: That doesn't mean it's going to 8 work, but, yes, I have it open, and it worked when 9 you ran through it earlier in the week, so --10 CHAIRMAN FAY: Yeah. Mr. Thompson, if you 11 don't mind also just stating where you are 12 directing us --13 I certainly will. MR. THOMPSON: 14 CHAIRMAN FAY: -- so if for some reason it 15 doesn't come through for somebody, they are able to 16 go to the page and line of that testimony. 17 Will do. MR. THOMPSON: 18 So I just sent out a page direction. I am 19 currently looking at Exhibit 20, document number 20 10. 21 BY MR. THOMPSON: 22 Do you see that, Mr. D'Ascendis. 0 23 Is there any way that you can shrink it Α I do. 24 a little bit, because it's kind of blown up on mine? 25 0 You can on your end. I can't do it for you,

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1 though. On the View tab in Case Center, there as zoom 2 out button. 3 Α Yeah, okay. Awesome. Thank you. 4 You are welcome. Q 5 So this is, again, Exhibit 20, All right. document number 10. For the record, this is master 6 7 D9-654. 8 This is the comparison of capital expenditures 9 to net plant that you conducted, right? 10 Α Yes, sir. 11 Q And in yellow is Peoples Gas? 12 Α Yes, sir. 13 The ratio that you calculated was 60 percent 0 14 for Peoples? 15 Α It was. 16 0 Okay. Would you agree that the median for 17 this proxy group is 39.5 percent? 18 I will agree to your math. I don't -- I don't Α 19 know. 20 Q Okay. 21 It's in between 38 and But it looks right. Α 22 41, so --23 Thank you. 0 Okay. 24 So if the ratio for Peoples is 60 percent, and 25 the median is 39.5, that's a difference of it 20.5

1 percent? 2 Α Yes, sir. 3 Q Okay. And you performed this same capital 4 expenditures ratio analysis in your rebuttal testimony, 5 is that correct? I did. 6 Α 7 Okay. So I am now looking at Exhibit 30, Q 8 document number 10, and I have also sent a page 9 direction. Do you see that as well? 10 Α I do. Thank you. 11 Q Is this the recalculated ratio with your 12 rebuttal testimony? 13 Yes, sir. It updated it to 2022 --Α 14 Q Okay. 15 -- because 2022 already happened, so it would Α 16 be '23 and '24. So with it this updated information, 17 0 Okay. 18 like you said, that's the annual report information from 19 2022, PGS's ratio dropped from 60 to 33 percent? 20 Α Yes, sir. 21 And would you agree that the median for this Q 22 group is 26.5 percent? 23 Α I would. 24 And so the difference between the -- between 0 25 Peoples and the median in this document is only

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1	six-and-a-half percent, is that correct?	
2	A I would agree with that, sir.	
3	Q Okay. So for the original and that was on	
4	direct the difference was 20.5 percent, and the new	
5	difference is 6.5 percent; is that correct?	
6	A Right. And that would respect the capital	
7	going in during that year or the year 2022.	
8	Q So would you agree that that shows that the	
9	relative risk for Peoples decreased from your direct to	
10	your rebuttal testimony?	
11	A I would say, yeah, based on based on these	
12	numbers, but I don't know whether or not they well, I	
13	guess, yeah, I mean, I would agree with that, but the	
14	debt would still be outstanding, like, the capital would	
15	still be outstanding. But, yes, I would agree that	
16	going forward, the company is less risky than when they	
17	were when they filed based on this measure.	
18	Q Okay. Thank you.	
19	The proxy group that you selected, is that	
20	comprised of holding companies?	
21	A Atmos is not a holding company.	
22	Q Atmos is not?	
23	A I think they I think. And then I also	
24	think that ONE Gas is not a holding company, but I am	
25	not positive on that one.	

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1	Q Okay.
2	A But Atmos Atmos is absolutely an operating
3	utility.
4	Q Okay.
5	A And each of their operating subsidiaries are
6	or not subsidiaries, all of their operations are
7	different divisions.
8	Q Do you know if Atmos has companies located in
9	Texas, or if it I will leave it at that. Do you know
10	if Atmos has companies in Texas?
11	A Yes, sir.
12	Q They do?
13	A Yes.
14	Q Do they have any companies in other states?
15	A Yes, sir.
16	Q Okay. PGS is an operating company, correct?
17	A That's right.
18	Q Would you agree that comparing PGS to other
19	operating companies is a more like to like comparison
20	than comparing PGS to holding companies?
21	A I would agree, but in the idea I would
22	agree, but the issue with that is that there are like
23	I said, there is only one publicly traded LDC company.
24	So with the absence of that, you have to go to the next,
25	I guess, level, which would be a gas holding company.

1 And I think like what we said in the 2 deposition, that these companies' assets and net 3 operating income on average are around 80 percent --4 Q Okay. 5 -- so, I mean, generally you would consider Α them gas operations. 6 7 Is it fair to say that a holding 0 Okay. 8 company's net plant would be much higher than an 9 operating company's net plant? 10 I would absolutely agree with that. Α I think 11 -- and I think we went through this on the deposition 12 too. 13 When you -- when you look at these companies, 14 you could say that it's kind of the culmination of the 15 plant. Let's say Atmos has eight different operating 16 subsidiaries, that would all be pulled into Atmos, so these numbers would reflect the operating subsidiaries 17 of those companies. But I do agree that their net plant 18 19 is significantly higher -- well, some are, some aren't. 20 0 So with all else held equal then, higher net 21 plant would reduce the ratio that we have been talking 22 about? 23 Α You mean -- let me -- let me try and clarify 24 this. 25 So you are saying 100 -- 100 of -- \$100 worth

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1 of new capital would -- would comprise a lower percent for a higher total net plant than a lower total net 2 3 plant, is that where you are -- is that where you are 4 going -- or is that what you are asking? 5 I am not sure I understood you either, like as 0 has been said, it's been soft and muffled, so I want to 6 7 make sure I am getting this cross correctly. 8 If capital expenditures are equal, so all else 9 held equal, would a higher amount of net plant result in 10 a lower ratio that we have been looking at? 11 Α It would. 12 Okay. So why did you use holding companies 0 13 instead of operating companies when performing this 14 analysis? 15 Α I think we went over this in the deposition as 16 well. 17 The issue with the operating companies is that 18 we wouldn't have expected levels of CAPEX, so we got the 19 expected levels of CAPEX through Value Line. There are 20 no services that provide projections of net plant for 21 operating gas utilities. 22 I know it's been talked about today, 0 Okav. 23 Is that the S&P Global Market Intelligence and the RRA. 24 Regulatory Research Associates? 25 It is, sir. А

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1	And I take it was familian with them?
1	Q And I take it you are familiar with them?
2	A I am.
3	Q Do they provide any information on operating
4	company net plant or rate base?
5	A They do, but they don't provide projections.
6	Q Okay. They don't provide projections.
7	Do they publish a database or a list of major
8	gas utility rate cases?
9	A They do.
10	Q Could you use to obtain information about the
11	operating companies?
12	A I guess in my in my risk premium analysis,
13	when I ran my regression analysis, I would use the
14	authorized returns or for the operating subsidiaries of
15	holding companies, or just companies that aren't held by
16	anybody.
17	Q Okay. Is it your opinion that net plant
18	information for the operating company isn't available,
19	or that it's just more difficult to find than for the
20	holding companies?
21	A Operating company net plant is available.
22	Projected net plant is not. It doesn't exist. So you
23	can't make the study of projected capital expenditures
24	when the data doesn't exist.
25	Q Okay. And you used historical net plant,

1 correct?

A I used data, so historical net plant, but -- I am sorry, projected capital expenditures. So the net plant, the historical net plant is available, the projected CAPEX is not available for the operating subsidiaries. I apologize.

Q Okay. Would you agree that a company with a higher equity ratio has less financial risk than one with a lower equity ratio, all else held equal?

10 A I would agree.

11 Q Okay. And I know it was discussed there at 12 the end of the last cross, but for its projected capital 13 structure, PGS is requesting an equity ratio of about 14 54.7 percent?

15 A Yes, sir.

Q Okay. I am looking at Exhibit 30, document number two, page two, and sent out a page direction. Do you see that as well?

19 A I do.

Q Okay. This has each of the proxy groups, and then at the bottom, there is a row for the proxy group as a whole, is that correct?

23 A Yes, sir.

24 Q Okay. Now, these are the capital structure 25 ratios for each of the holding companies or operating

1 companies in the proxy group, right? 2 Α Page two is holding companies. Page three is 3 operating subsidiaries. 4 Q Okav. So if I am looking at page two, the 5 holding companies, the average equity ratio for the proxy group was 48.83 percent? 6 7 I would agree with that. Α 8 Q And that's a lower equity ratio than PGS's 9 requested equity ratio, is that right? 10 Α I would agree with that. 11 Q Did you consider a downward adjustment to your 12 recommended ROE in light of that lower financial risk? 13 No, I didn't. Α 14 There has been a lot of discussion Q Okay. 15 today about the risk premium models -- oh, sorry, one 16 moment. 17 Why did you not consider a downward 18 adjustment? 19 Α So if you take a look at pages two and you 20 look at page three, you can see that the operating 21 utility companies have more comparable number, and more 22 comparable levels of common equity. So when you look at 23 both of them, you would -- you would -- well, at less my 24 opinion is, is that there isn't a difference in risk to 25 the capital structure.

1 But why use the operating companies for 0 Okay. 2 the financial risk comparison if you are using the 3 holding companies to calculate the market cost of 4 equity? 5 Α Well, I agree with you there, where there is a piece where you are looking at holding companies to 6 7 derive a market risk premium for the market return on 8 equity, and then you are looking at the operating 9 companies for the common -- for the common equity cost 10 So I understand the difference. rate. 11 We agreed earlier that these holding company 12 -- or the operating of subsidiaries are more comparable 13 to the companies than -- let me start over again. 14 The operating subsidiary companies are more 15 similar in risk to the target company, in this case is 16 PGS. So when you can get through that type of analyses, you use that. You can't -- you can't get -- I guess --17 18 let's try -- so you can't get market data for an operating subsidiary company. 19 You can -- and that's why 20 you can't do an ROE analysis on those companies --21 Okay. Operating companies are --Q 22 -- on the other hand --А 23 I am sorry. My apologies. Please continue. 0 24 Α I am sorry. I hear the echo, so that's why 25 there is pauses between everything I say.

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1 So you use -- so when you -- like I said, the 2 operating companies don't issue -- don't issue equity 3 but they do issue debt. And when you look at the common 4 -- when you can look and observe data for the operating 5 companies, I agree with you, that the operating companies is a better comparison. 6 7 And operating companies don't issue 0 Okay. 8 stock, I think you -- sorry once again. 9 Α Yeah. Yep. 10 Operating companies don't issue stock, though, Q 11 right? I think you just said that. 12 Α Yes, sir. 13 So they are not publicly traded, but you 0 14 relied on the price of the stock from the holding 15 companies that have lower security ratios to determine 16 the ROE? 17 Α Try -- can you say that again, please? 18 You relied on the price of the stock from the 0 19 holding companies that have lower equity ratios to 20 determine the ROE, is that correct? 21 Α That's right. And I mean, and like I said, if 22 you look at Atmos, on page one, that's the only one 23 that's not a holding company, and you can see that their 24 common equity ratio is 62 percent. 25 Thank you. 0 Okay.

1 So there was a lot of discussion about risk 2 premium models earlier. It's my understanding that 3 there are two different risk premium models, is that 4 correct? 5 That I present, sir? Α 6 0 Correct, that you presented in your direct and 7 rebuttal testimony. 8 Α Yes. 9 So there is the Predictive Risk Premium Model 0 10 and the Total Market Approach Risk Premium Model? 11 Α Yes, sir. 12 So that's the PRPM and the TMARPM. Okay. 0 13 My understanding is you performed the TMARPM 14 but did not use it in this case to craft your 15 recommended ROE, is that correct? 16 Α No, sir. So if you go to -- I guess, right 17 now I am on -- if you go on document one, page two. Are 18 you there? 19 0 I am. 20 Α So if you look at document one, page two, and you look at line number five, you will see my range --21 22 my unadjusted range of result, and that would include the high end and the low end. The low is the DCF cost 23 rate at 9.6, and the CAPM result of 11.74. 24 The 11.42 25 percent is subsumed in that. I do not use the non-price

1 regulated companies in my determination in this case. 2 Q Right. And so the non-price regulated 3 companies is the TMA approach, is that correct? 4 Α NO, it's not. 5 Yeah, so if you -- the TMA approach would be contained in document seven in my direct and rebuttal 6 7 The TMA approach starts on page four -- or testimony. 8 page three of document number four. 9 Thank you for that clarification. Okay. Q 10 Α Sure. 11 Q I am looking at Exhibit 30, document number 12 four, page one, and sent a page direction for it. That 13 is E5-176. Do you see that? 14 Α Yes. 15 So this is a summary, or conclusion of 0 Okav. 16 the Predictive Risk Premium Model being performed, 17 correct? 18 Yes, the top -- the top row is the results of Α 19 the PRPM, and the second -- the second is the RPTMA. Ι 20 might take that from you. I like the shortened from 21 total market approach. 22 Six words is a mouthful. 0 23 So your PRPM analysis resulted in Okay. 24 indicated ROE of 11.82 percent? 25 That's right. Α

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1	Q And that was either than either your DCF or
2	CAPM?
3	A It was.
4	Q Okay. All right. I am now looking at what
5	has been entered as Exhibit 132. This is Attachment 16
6	to that, and it's master page F3030. Do you see that?
7	A Yes, sir.
8	Q All right. This is an article titled
9	Comparative Evaluation of the Predictive Risk Premium
10	Model, the Discounted Cash Flow Model and the Capital
11	Asset Pricing Model for Estimating the Cost of Common
12	Equity, correct?
13	A Yes, sir.
14	Q You coauthored this article?
15	A Yes, I did.
16	Q And it was published in 2013?
17	A It was.
18	Q You noticed approximately six people that have
19	testified about or endorsed this model?
20	A That sounds about right. Yeah.
21	Q And so that includes you and the co-authors of
22	the article?
23	A Yes.
24	Q And then a Robert Hebert who is now retired?
25	A He is the CFO of Unitele, so I don't know if

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1 he is retired, but out of the industry I mean -- out of 2 the testifying rank for the ROE anyway. 3 Q One moment. 4 Α That might have been a discrepancy in the 5 deposition. Would you -- if you -- would it be 6 0 Okay. 7 possible that you said he was retired in the deposition? 8 Α I think so, because it said retired up in 9 Alaska, and that's like that's -- I definitely wasn't 10 what I said, so --11 Q Okay. And then there was one other individual 12 that you are aware of? 13 His name is Perkins, his last name Α Yes, sir. 14 is Perkins. He used it in a -- to my knowledge, he used it in a case up in Maine for Emera Maine. 15 16 0 Okay. All right. Further into this article 17 -- I sent out a page direction. It's master page F3034. 18 I am looking Figure 4 of the article. Do you see that? 19 Α I do. 20 This figure compares the indicated return on Q 21 equity using the PRPM model against the indicated ROEs 22 for the DCF and CAPM methods, is that correct? 23 Α Yes, sir. 24 Now, this particular figure, Figure 4, is 0 25 comparing only the results for gas companies, right?

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1 Α That's right. It based on the AUS Utility 2 Report gas companies, but they are all considered gas 3 companies. They are not necessarily proxy companies in 4 this case, though. 5 Starting at the far left, the line near Q Okay. the top, beginning near about 14.5 percent, because 6 7 these aren't colored, and it's a scan, it's kind of hard to tell, but is that line the indicated ROE for the 8 9 PRPM? 10 Α The top line is, yeah. 11 Q Okay. And then below that, starting between 10-and-a-half and 11-and-a-half percent, is that the 12 13 CAPM model? 14 Α It is. 15 And then the last one would be the DCF model? 0 16 Α It is. 17 So for the more than five-year period analyzed 0 18 in this article, the PRPM resulted in a higher indicated 19 ROE than the DCF or the CAPM every single time? 20 Α It looks like there might be some in the 21 beginning of -- in the beginning of or the middle of 22 2011. But, yes, I would say that over that period, the 23 PRPM was higher. Sometimes it's lower, but, like, for in this -- in this case, if you -- if you look at the 24 25 PRPM results of 11.82, they are higher but comparable to

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1 the CAPM results of 11.74. 2 Q Okay. 3 MS. CHRISTENSEN: Commissioner, can we 4 interrupt? We are not -- we didn't get the copy of 5 the article that you pushed out. I can send the page direction 6 MR. THOMPSON: 7 again. 8 CHAIRMAN FAY: Yeah, we can also just direct 9 you to the master number. 10 MR. THOMPSON: F3034. 11 CHAIRMAN FAY: F3034. 12 MS. CHRISTENSEN: Where are we? In his 13 direct, or rebuttal, or --14 MR. THOMPSON: This is an interrogatory 15 response, or a production for document filed 16 response. 17 MS. CHRISTENSEN: And where would we find 18 that? 19 MR. THOMPSON: This is PGS's response to OPC's 20 sixth POD. 21 And what got pushed out to me is MR. MOYLE: 22 page five of six, is that right, only that one 23 page? 24 MR. THOMPSON: Correct. 25 I didn't get it the first time, MR. MOYLE:

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1 but I did get it just now. Thank you. MR. THOMPSON: 2 Okay. 3 MS. CHRISTENSEN: No. 4 MS. HELTON: Under the find button, do you 5 have either direction turned on, Ms. Christensen? 6 Just --7 So if in Case Center, you go to CHAIRMAN FAY: 8 the find, like Ms. Helton is talking about, there 9 is an auto direction button you click on, and when 10 you do that it will --11 MS. CHRISTENSEN: Yeah, I have auto direct on 12 and page direct. Let me try refresh. 13 Go ahead. He will share. 14 MR. THOMPSON: Okay. 15 BY MR. THOMPSON: Mr. D'Ascendis, still on page five of this, 16 0 In the center column near 17 there is some text columns. 18 the middle, or near the bottom, the article states 19 Figures 2 through 5 clearly show that, for the most 20 part, the PRPM produces a higher average indicated ROE 21 than both the DCF and the CAPM. Did I read that right? 22 That is right. Α 23 I am now looking at Exhibit 30, Q Okay. 24 document number four, page two, which is master E5177. 25 If you are looking at this, and you want, if you click

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1 on the view tab	, there is an option to rotate to the
2 right so you do	n't have to angle your neck. Just a
3 suggestion.	
4 A Perfe	ct. I was looking for that.
5 Q Okay.	Do you see this, Mr. D'Ascendis?
6 A Yes,	sir.
7 Q Okay.	What is this document we are looking
8 at?	
9 A These	are the results of the PRPM.
10 Q Okay.	On the far right, column seven, is that
11 the ROE indicat	ed by the RPM PRPM?
12 A It is	
13 Q Okay.	
14 A It is	
15 Q There	is a row labeled ONE Gas, and at the end
16 it says, NMF.	NMF means nonmeaningful figure, is that
17 correct?	
18 A That'	s correct.
19 Q And t	he foot notes on this page, specifically
20 Footnote 5, spe	cifies that column seven is calculated by
21 adding columns	five and six; is that right?
22 A That'	s right.
23 Q If yo	u were to add columns five and six for
24 ONE Gas, that w	ould result in an indicated ROE of 19.1
25 percent, is tha	t right?

1 Α It would. 2 And then you removed that because, in your Q 3 opinion, it was too high? That, and the GARCH coefficient, which is 4 Α 5 column four, that GARCH coefficient is not statistically significant. 6 7 Q Okay. 8 Α Now --9 Mr. Thompson, I don't want to CHAIRMAN FAY: 10 I just want to get an idea on your interrupt you. 11 time just to make sure we give the court reporter a 12 break. 13 I think I am probably about MR. THOMPSON: 14 90 percent done. 15 CHAIRMAN FAY: Okay. 16 MR. THOMPSON: My apologies, that was not a 17 pleasant sound. 18 BY MR. THOMPSON: 19 Mr. D'Ascendis, the PRPM model, your article 0 stated that the model is stable and consistent over 20 21 time, right? 22 Α That's right. 23 Okay. All right. Now I am staying in Exhibit 0 30, but moving to document number three, page one, 24 25 another one where it might be convenient to rotate the

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1 page. 2 Do you see that, Mr. D'Ascendis? 3 Α I do. Column seven -- well, what is this document? 4 Q 5 It's my application of the DCF model. Α Okay. And so column seven is the ROE 6 0 7 indicated by the DCF model? 8 Α It is. 9 And for ONE Gas, the DCF model indicated an Q 10 ROE of 8.84 percent? That's right. 11 Α 12 Still in Exhibit 30, now looking at document 0 13 number five, page one. What is this document? 14 Α This is the application of the CAPM to my 15 proxy group company. 16 Column six is the ROE indicated by the 0 17 traditional CAPM? 18 It is. Α 19 0 And for ONE Gas, the CAPM indicated an appropriate ROE of 10.91 percent, is that correct? 20 21 That's right. А 22 The DCF and CAPM methodologies are widely used 0 23 by regulatory bodies across the country? 24 Α They are. 25 And I believe I said earlier, but you 0

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1 testified approximately 130 times on behalf of 2 utilities? 3 Α Around there, yes. 4 And in that time, two jurisdictions have Q 5 accepted one of the risk premium models? 6 Α The PRPM. 7 I did want to follow up on that. 0 Okay. Ι 8 don't want to repeat South Carolina, because I know that 9 was asked and answered already. But for North Carolina, 10 my notes said that that was the -- you indicated that 11 was the total market approach model, is that correct? 12 Α Yeah. So it was -- it accepted That's right. 13 the CAPM, which includes the PRPM calculation of the 14 market risk premium, and then the total market approach, where it's used in two of, I quess if you roll off -- if 15 16 you roll off two pages from where you directed us to --17 0 Okay. 18 -- you will see that -- you will se the piece Α of the PRPM on line 3 there. 19 So they approve -- they 20 were fine with that calculation. And then if you roll 21 up to page eight of 12 on that document four, if you 22 look at line three, they -- they accepted that in the --23 in their order in North Carolina. 24 So the application was page eight, line three 25 of document four, line three of page 11 of document

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1 four, and page -- and then measure three on page two of 2 document five. 3 Q Okav. You might have lost me on a few of 4 I apologize. those. 5 I will try it again. Α So line three on page eight of four. 6 7 Document four, page eight, line three? 0 Line three, yes. Page 11, same line. 8 Α And 9 then on page two of document five, measure three. 10 Okay. So in the -- you provided an Q 11 interrogatory response related to these two orders, is 12 that correct? 13 Α Yes, sir. 14 And the question that this was responding to Q 15 was -- give me just a moment -- please list any utility 16 regulatory jurisdictions or agencies that have accepted and relied upon witness D'Ascendis' GARCH methodology to 17 18 determine the authorized ROE for a regulated gas or 19 electric utility in the United States of America. 20 You provided these two cases, one in South 21 Carolina and one in North Carolina. The South Carolina 22 commission does not directly reference either of the RPM 23 models, is that correct? 24 Α That's right. They just took my 25 recommendation --

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1 0 Okay. And to be clear, they ultimately --2 Α -- with --3 I'm sorry? Q 4 Α I'm sorry. I'm sorry. But them accepting my 5 position would imply the acceptance of the model, at least that my opinion. 6 7 Okay. And the Commission ultimately approved 0 an R -- the South Carolina commission, that is --8 9 ultimately approved an ROE on the low end of Mr. 10 D'Ascendis' range, is that correct? 11 Α That's right. 12 And then for the North Carolina utility 0 13 commission, that was not the Predictive Risk Premium 14 Model, is that correct? 15 Α It was -- they accepted the pieces that we 16 just went over. 17 Okay. That you delineated? 0 18 Not the -- not the application of the model to Α 19 the individual utility companies. Okay. And ultimately, the North Carolina 20 Q 21 commission approved a return on equity, rate of return, 22 or a return on equity, that was below what that risk premium model indicated, is that correct? 23 24 А Yes. That's correct, because, I mean, all --25 all commissions -- well, all commissions should, I

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1 guess, look at multiple models and not rely on one. So 2 I'm not surprised that it was -- that it was a 3 combination of all of the models that they said in that 4 order. 5 Okay. Would you agree that the DCF model can Q be verified using a simple algebraic calculation? 6 7 Α Can you repeat that? I am sorry. 8 Q Would you agree that the DCF model can be 9 easily verified by using a simple algebraic equation? 10 Α Yes. 11 Q Okay. Would you agree to the same for the 12 CAPM? 13 Α Yes. 14 And would you agree to the same for the PRPM? Q 15 Α No, it wouldn't be simple Algebra. 16 To estimate the coefficients and the 0 Okav. 17 monthly variances, you had to use a statistical 18 software? 19 Α You do. 20 And is that statistical software called 0 21 **EViews**? 22 Α You could use any statistical software. There 23 isn't -- so S -- S -- LIMSI -- there is a couple of 24 SRATS, I think it's called, but there is several. them. 25 You don't need to use if 15 views if you have access to

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1 any type of statistical model. You could run the GARCH 2 mo-- you could run the GARCH model using inputs that I 3 provided. 4 Q Is EViews free or does it require payment? 5 Α I am sorry? Is EViews free or does it require payment? 6 0 7 You have to pay for it, but I remember in my Α 8 responses to interrogatories, where I volunteered myself 9 on the software to verify the data, and wasn't taken up 10 on it. 11 MR. THOMPSON: Mr. Chair, one moment. 12 CHAIRMAN FAY: Okay. 13 BY MR. THOMPSON: 14 Last two questions for you, Mr. D'Ascendis. Q 15 So you published the PRPM model in the Electricity 16 Journal in 2013? 17 Α Yes, sir. 18 Okay. And it's been accepted twice since 0 19 then? 20 Α Yes, that sounds right. 21 Is the PRPM, as you used it, generally 0 Okav. 22 accepted and available, or used by investors to 23 calculate ROEs? 24 Α I would say yes. The GARCH methodology is 25 ubiquitous within the investor community, so I would say

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1 yes. 2 MR. THOMPSON: Okay. No further questions. 3 CHAIRMAN FAY: Okay. 4 THE WITNESS: Thank you. 5 CHAIRMAN FAY: Commissioners? 6 Okay. Redirect? 7 No redirect, Mr. Chairman. MR. MEANS: 8 CHAIRMAN FAY: Okay. Enter in some exhibits? 9 MR. MEANS: Yes, Mr. Chairman. We ask that 10 Exhibits 20 and 30 on the comprehensive exhibit 11 list be moved into the record. 12 Showing no objection, CHAIRMAN FAY: Okay. 13 show those entered. 14 (Whereupon, Exhibit Nos. 20 & 30 were received 15 into evidence.) 16 MR. MEANS: And may the witness be excused? 17 CHAIRMAN FAY: Let's enter in OPC's exhibits 18 first. 19 MR. MEANS: Oh, I am sorry. 20 MS. CHRISTENSEN: Yes, I would ask --21 CHAIRMAN FAY: That's okay. 22 Go ahead, Ms. Christensen. 23 I would ask to have Exhibit MS. CHRISTENSEN: 24 180 through 184 admitted into the record. 25 Without objection, show CHAIRMAN FAY: Okay.

1 those entered. 2 (Whereupon, Exhibit Nos. 180-184 were received 3 into evidence.) 4 CHAIRMAN FAY: Mr. Moyle. MR. MOYLE: 5 That stand-alone exhibit that was declassified, I probably would like to get that 6 7 entered into the record so it's easily accessible 8 for briefing purposes. 9 CHAIRMAN FAY: Okay. Just that page? 10 We will do it -- that's right, MR. MOYLE: 11 that one page. I will work with the parties and, 12 at another time, offer it as an exhibit if that's 13 okay. 14 CHAIRMAN FAY: That's fine. And then, Okay. 15 yeah, just whenever you want to introduce it, just 16 remind me that we are bringing it back up and we 17 will enter it in, I presume without any objection. 18 MR. MOYLE: Thank you. 19 CHAIRMAN FAY: Yep. Thanks. 20 All right. With that, Mr. Means? 21 MR. MEANS: Yes, Mr. Chairman, may Mr. 22 D'Ascendis be excused? 23 CHAIRMAN FAY: He may be excused. Yes. 24 MR. MEANS: Thank you. 25 THE WITNESS: Thank you.

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1 (Witness excused.) 2 CHAIRMAN FAY: All right. Commissioners, 3 would going to take a break and then come back with 4 Mr. Watson as the next witness. 5 What I would like, though, is to make sure our 6 IT and our folks get Mr. Watson teed up and we've 7 got everything tested, so when we come back here --8 and I am going to give us until 4:30 just to make 9 sure everybody gets set up and give the court 10 reporter a little break, because we ran a little 11 long on that witness. 12 So any questions before we break? 13 Just wondering if you expect Mr. MR. WAHLEN: 14 Watson to be the last witness today? 15 CHAIRMAN FAY: It would depend on how much 16 cross we have for him, I think that would -- that 17 would vary. 18 OPC or Mr. Moyle, do you have any thoughts in 19 general? We are not asking you to limit it by any 20 means, but just do get a general idea. 21 MS. CHRISTENSEN: I am assuming it's going to 22 run probably about the same as Mr. D'Ascendis, so 23 maybe an hour, hour and 15 minutes, depending on 24 how the witness responds. 25 CHAIRMAN FAY: Okay. Mr. Moyle?

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1	MR. MOYLE: I think there is a lot riding on
2	how yes/no versus narratives, so for the good of
3	the order, I will try to make it shorter than it
4	was previously.
5	CHAIRMAN FAY: Did you just dodge my question
6	by giving an elaborate answer, Mr. Moyle?
7	MR. WAHLEN: He didn't answer yes or no. He
8	just explained.
9	CHAIRMAN FAY: All right. Staff?
10	MR. THOMPSON: Tentatively, staff has no cross
11	for Mr. Watson, but obviously that's subject to
12	change depending on
13	CHAIRMAN FAY: Okay. I would presume there is
14	a probability he would be the last witness, I mean,
15	unless something changes and a deposition gets
16	entered or something, I think at this point, that
17	probably will take us until later tonight.
18	MR. WAHLEN: Okay. Mr. O'Connor is here. We
19	are going to allow him to relax back at the hotel,
20	I suppose, until tomorrow. You want to
21	CHAIRMAN FAY: I would like to keep him
22	here
23	MR. WAHLEN: Okay, very well.
24	CHAIRMAN FAY: depending, to see how this
25	goes.
1	

1		MR. WAHLEN: Okay.
2		CHAIRMAN FAY: Okay. Thank you, Mr. Wahlen.
3		MR. WAHLEN: Yep.
4		(Brief recess.)
5		(Transcript continues in sequence in Volume
6	4.)	
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1	CERTIFICATE OF REPORTER
2	STATE OF FLORIDA)
3	COUNTY OF LEON)
4	
5	I, DEBRA KRICK, Court Reporter, do hereby
6	certify that the foregoing proceeding was heard at the
7	time and place herein stated.
8	IT IS FURTHER CERTIFIED that I
9	stenographically reported the said proceedings; that the
10	same has been transcribed under my direct supervision;
11	and that this transcript constitutes a true
12	transcription of my notes of said proceedings.
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 16th day of September, 2023.
19	
20	
21	Alipti
22	DEBRA R. KRICK
23	NOTARY PUBLIC COMMISSION #HH31926
24	EXPIRES AUGUST 13, 2024
25	

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