**BEFORE THE PENNSYLVANIA PUBLIC
UTILITY COMMISSION**

PENNSYLVANIA PUBLIC UTILITY COMMISSION	:	
	:	
	:	
v.	:	**DOCKET NO. R-2018-3006818**
	:	
PEOPLES GAS COMPANY	:	

DIRECT TESTIMONY OF

KEVIN W. O'DONNELL, CFA

**ON BEHALF OF
OFFICE OF CONSUMER ADVOCATE**

APRIL 29, 2019

Contents

1   **I.   Introduction**

2   **Q.   PLEASE STATE YOUR NAME, POSITION, AND BUSINESS ADDRESS**

3   **FOR THE RECORD.**

4   A.   My name is Kevin W. O'Donnell. I am President of Nova Energy Consultants, Inc.

5   My business address is 1350 Maynard Rd., Suite 101, Cary, North Carolina 27511.

6

7   **Q.   ON WHOSE BEHALF ARE YOU PRESENTING TESTIMONY IN THIS**

8   **PROCEEDING?**

9   A.   I am testifying on behalf of the Pennsylvania Office of Consumer Advocate (OCA).

10   The OCA represents consumers before the Pennsylvania Public Utility

11   Commission (Commission).

12

13   **Q.   PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND**

14   **RELEVANT EMPLOYMENT EXPERIENCE.**

15   A.   I have a Bachelor of Science in Civil Engineering from North Carolina State

16   University and a Master of Business Administration from the Florida State

17   University. I earned the designation of Chartered Financial Analyst (CFA) in 1988.

18   I have worked in utility regulation since September 1984, when I joined the Public

19   Staff of the North Carolina Utilities Commission (NCUC). I left the NCUC Public

20   Staff in 1991 and have worked continuously in utility consulting since that time,

21   first with Booth & Associates, Inc. (until 1994), then as Director of Retail Rates for

22   the North Carolina Electric Membership Corporation (1994-1995), and since then

23   in my own consulting firm. I have been accepted as an expert witness on rate of

24   return, cost of capital, capital structure, cost of service, rate design, and other

25   regulatory issues in general rate cases, fuel cost proceedings, and other proceedings

26   before the North Carolina Utilities Commission, the South Carolina Public Service

27   Commission, the Wisconsin Public Service Commission, the Virginia State

28   Commerce Commission, the Minnesota Public Service Commission, the New

29   Jersey Board of Public Utilities, the Colorado Public Utilities Commission, the

1   Oklahoma Public Utilities Commission, the District of Columbia Public Service

2   Commission, and the Florida Public Service Commission. In 1996, I testified

3   before the U.S. House of Representatives' Committee on Commerce and

4   Subcommittee on Energy and Power, concerning competition within the electric

5   utility industry. Additional details regarding my education and work experience

6   are set forth in Appendix A to my answering testimony.

7

8   **Q.**   **WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**

9   **PROCEEDING?**

10   A.   The purpose of my testimony in this proceeding is to present my findings and

11   recommendations to the Commission as to the proper rate of return to allow Peoples

12   Natural Gas ("Peoples" or "Company") in the current proceeding.

13

14   **Q.**   **IN THE RESPECTIVE DIRECT TESTIMONIES OF SOME OF ITS**

15   **EXPERTS, WHAT RATE OF RETURN DID PEOPLES GAS**

16   **RECOMMEND THAT THE COMMISSION ACCEPT?**

17   A.   According to the testimony of Company Witness Moul, Peoples is seeking an

18   overall rate of return of 8.00% based on the capital structure and cost rates as set

19   out in Table 1 below.

20   Table 1:   Peoples Requested Cost of Capital

Component	Capital Structure Ratio (%)	Cost Rate (%)	Wgtd. Cost Rate (%)
Long-Term Debt	46.34%	4.24%	1.96%
Common Equity	<u>53.66%</u>	11.25%	6.04%
Total Capitalization	100.00%		8.00%

21

22   **Q.**   **DO YOU AGREE WITH PEOPLES' RATE OF RETURN REQUEST?**

23   A.   No. I disagree with Peoples' requested capital structure and its return on equity.

24

1 **Q.**   **PLEASE SUMMARIZE YOUR PRIMARY RECOMMENDATIONS IN**

2   **THIS CASE.**

3 A.   My recommendations in this case are as follows:

4   • the proper return on equity on which to set rates for Peoples in this

5   proceeding should not exceed 8.75%;

6   • the proper capital structure to use in this proceeding is 50.09% common

7   equity and 49.91% long-term debt;

8   • Peoples should use its embedded cost of long term debt of 4.24% for its debt

9   costs;

10   • the overall rate of return that should be granted Peoples in this case is

11   6.50%; and

12   • the return on equity recommended by Company Witness Moul for Peoples

13   Natural Gas is excessive, unreasonable, and not indicative of current market

14   conditions

15

16   My recommended capital structure and ROE in this case is as follows:

17

18   Table 2:   OCA Recommended Overall Rate of Return

Component	Capital Structure Ratio (%)	Cost Rate (%)	Wgtd. Cost Rate (%)
Long-Term Debt	49.91%	4.24%	2.12%
Common Equity	<u>50.09%</u>	8.75%	<u>4.38%</u>
Total Capitalization	100.00%		6.50%

19

20

21

22 **II.**   **History of Peoples Natural Gas**

23 **Q.**   **PLEASE EXPLAIN THE HISTORY OF PEOPLES NATURAL GAS.**

1   A.   Peoples Natural gas has been providing natural gas service in western Pennsylvania

2   for over 100 years. More recently the company has undergone significant change.

3   In 2013 Peoples purchased Equitable Gas and has been working since that time to

4   integrate Equitable into Peoples.[1] This purchase of Equitable provided Peoples with

5   service territories in West Virginia and Kentucky.[2] In 2017, Peoples purchased

6   Delta Natural Gas.[3] In October 2018, Aqua America announced plans to purchase

7   Peoples Gas at a price of $4.275 billion, which includes the assumption $1.3 billion

8   debt.

9

10   **Q.**   **COULD YOU PERFORM A COST OF EQUITY ANALYSIS DIRECTLY**

11   **ON PEOPLES NATURAL GAS?**

12   A.   No. Peoples Natural Gas is a subsidiary of PNG Companies which, as noted above,

13   is now being purchased by Aqua America. Since PNG is in the process of being

14   sold, I could not develop a cost of equity specifically for PNG or Peoples. For that

15   reason, I developed a proxy group of companies to assess the risk and

16   corresponding return for Peoples Gas.

17

18   **III.**   **Current State of Financial Markets**

19

20   **Q.**   **HOW HAS THE DEBT MARKET FOR PEOPLES CHANGED SINCE THE**

21   **COMPANY'S LAST RATE CASE?**

22   A.   The Company's last rate case was in 2013 and a final order was issued on Dec. 19,

23   2013.[4] Long-term interest rates have fallen slightly over the past year. In Chart 1

24   below, I have provided the change in the 30-year US Treasury bonds since Dec. 20,

25   2013. On that date, the yield on 30-year US Treasury bonds was 3.82%. As of

26   April 10, 2019, the yield on 30-year US Treasury bonds was 2.90%, which equates

27   to a 92 basis point decrease in the yield on 30-year US Treasury bonds.

28

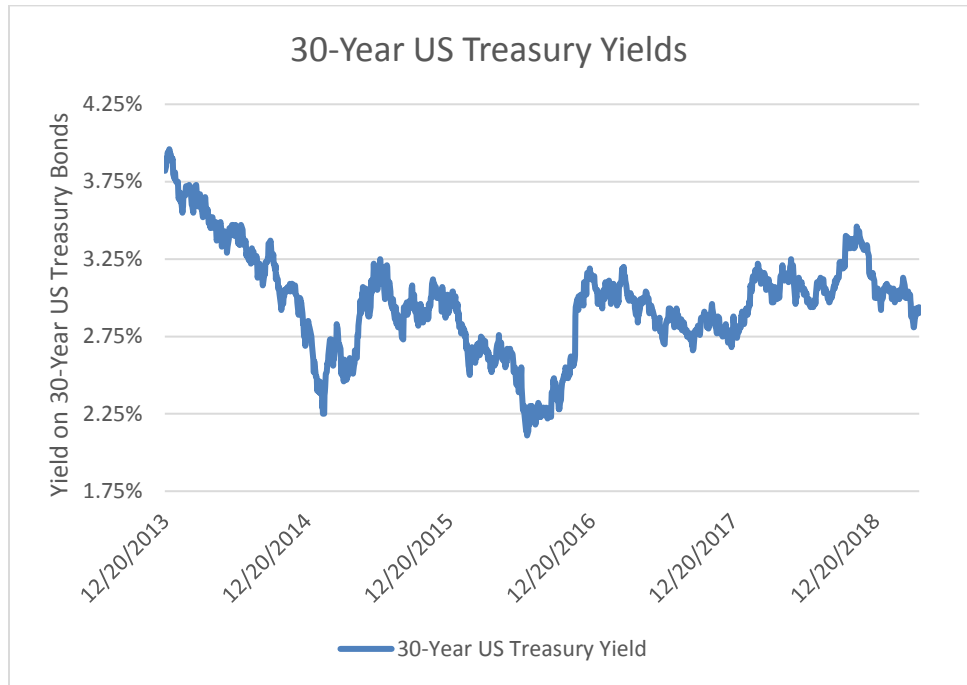[1] Prefiled direct testimony of Morgan O'Brien, p. 6.
[2] https://www.peoples-gas.com/about/
[3] https://www.peoples-gas.com/about/
[4] Data taken from snl.com

1

2   Chart 1:   Yield on 30-Year US Treasury Bonds

3
4
5   Source for raw data: https://www.treasury.gov/resource-center/data-chart-center/interest-
6   rates/Pages/TextView.aspx?data=yieldYear&year=2013-2019

7
8 **Q.**   **DIDN'T THE FEDERAL RESERVE JUST RAISE INTEREST RATES?**

9 A.   Yes, on December 19, 2018, the Federal Reserve increased the Federal Funds rates

10   from 2.25% to 2.50%.[5]

11

12 **Q.**   **DOES THIS MEAN THAT THE COST OF CAPITAL HAS INCREASED**

13   **FOR COMPANIES LIKE PEOPLES?**

14 A.   No. The interest rate increase represents only the interest rate at which banks

15   borrow short-term money. The interest rate hike from the Federal Reserve does not

16   always result in an increase in long-term rates. As noted in Chart 1 above, the yield

17   on 30-year US Treasury rates has been falling since the announcement of the

18   Federal Reserve rate hike.

19

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[5] https://www.cnbc.com/2018/12/19/fed-hikes-rates-by-a-quarter-point-.html.

1   Recently, the Federal Reserve has indicated that it does not intend to raise interest

2   rates any further in 2019.[6]
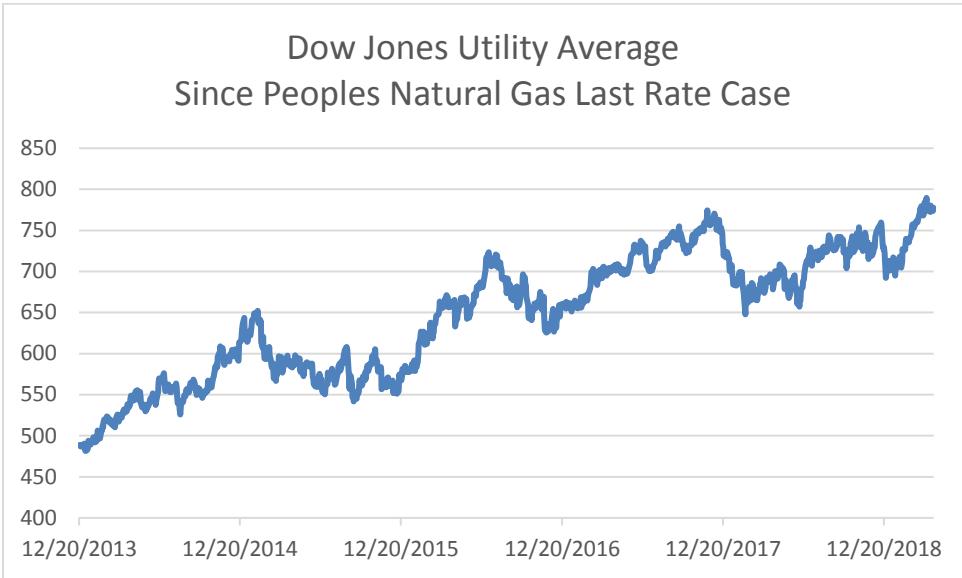
3

4 Q. **HOW HAS THE STOCK MARKET FOR UTILITIES CHANGED SINCE**

5   **THE COMPANY'S LAST RATE CASE?**

6 A. Since May 1, 2018, the Dow Jones Utility Average has risen from 703.59 to 774.06,

7   which equates to a return of 10% in less than one-year.

8

9   Chart 2:   Dow Jones Utility Average

Dow Jones Utility Average
Since Peoples Natural Gas Last Rate Case

10

11   Source: Yahoo Finance accessed on 4-10-19.

12

13 Q. **WHAT RETURN ON EQUITY (ROE) DID THE COMPANY SEEK IN ITS**

14   **2013 BASE RATE CASE AND WHAT WAS GRANTED BY THE**

15   **COMMISSION?**

16 A. The Company sought a 11.25% ROE in the last rate case.[7] The case was settled

17   and no ROE was presented in the settlement.

18

19 Q. **WHAT ROE IS THE COMPANY SEEKING IN THIS RATE CASE?**

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[6] https://www.cnbc.com/2019/03/20/fed-leaves-rates-unchanged.html.
[7] Prefiled testimony of Paul Moul, Docket No. 2013-2355886, p. 1

1 A. In the current filing, the Company is again seeking an 11.0% ROE with a 25 basis

2   point "exemplary" management adder.

3

4 Q. **DO YOU BELIEVE THE COMPANY'S REQUEST IN THIS CASE IS**

5   **APPROPRIATE GIVEN THE CHANGE IN THE COST OF CAPITAL**

6   **SINCE ITS LAST RATE CASE?**

7 A. No. Even though the cost of debt financing and equity financing has gone down,

8   the Company has not reduced its requested ROE at all. Failing to recognize the

9   lower expected return on utility investments, as espoused by Company Witness

10   Moul, cannot be supported.

11
12
13 **IV. Economic and Regulatory Policy Guidelines for a Fair Rate of Return**

14

15 Q. **PLEASE BRIEFLY DESCRIBE THE ECONOMIC AND REGULATORY**

16   **POLICY CONSIDERATIONS YOU HAVE TAKEN INTO ACCOUNT IN**

17   **DEVELOPING YOUR RECOMMENDATION CONCERNING THE FAIR**

18   **RATE OF RETURN THAT UTILITY COMPANIES SHOULD HAVE AN**

19   **OPPORTUNITY TO EARN.**

20 A. The theory of utility regulation assumes that public utilities perform functions that

21   are natural monopolies. Historically, it was believed or assumed that it was more

22   efficient for a single firm to provide a particular utility service than multiple firms.

23   Even though deregulation for the procurement of natural gas and generation of

24   electric power and energy is spreading, delivery of these products to end-use

25   customers is still a monopoly business and will, for the foreseeable future, be

26   regulated. On this basis, state legislatures or Commissions establish exclusive

27   franchised territories to public utilities or determine territorial boundaries where

28   disputes arise, in order for these utilities to provide services more efficiently and at

29   the lowest reasonable cost. In exchange for the protection within its monopoly

30   service area, the utility is obligated to provide adequate service at fair, regulated

31   rates.

1

2   This naturally raises the question - what constitutes a just and reasonable rate? The

3   generally accepted answer is that a prudently managed gas utility should be allowed

4   to charge prices that allow the utility the opportunity to recover the reasonable and

5   prudent costs of providing utility service and the opportunity to earn a fair rate of

6   return on invested capital. This just and reasonable rate of return on capital should

7   allow the utility, under prudent management, to provide adequate service and attract

8   capital to meet future expansion needs in its service area. Since public utilities are

9   capital-intensive businesses, the cost of capital is a crucial issue for utility

10 companies, their customers, and regulators. If the allowed rate of return is set too

11 high, then consumers are burdened with excessive costs, current investors receive

12 a windfall, and the utility has an incentive to overinvest. If the return is set too low,

13 adequate service is jeopardized because the utility will not be able to raise new or

14 working capital on reasonable terms.

15

16 Since every equity investor faces a risk-return tradeoff, the issue of risk is an

17 important element in determining the fair rate of return for a utility.

18

19 Regulatory law and policy recognize that utilities compete with other firms in the

20 market for investor capital. The United States Supreme Court set the guidelines for

21 a fair rate of return in two often-cited cases: *Bluefield Water Works and*

22 *Improvement Co. v. Public Service Comm'n*. 262 U.S. 679, 692; and the *Federal*

23 *Power Comm'n v. Hope Natural Gas Co*., 320 U.S. 591, 603 (1944).

24
25 In the Bluefield case, the Supreme Court stated:

26
27   A public utility is entitled to such rates as will permit it to earn a return
28   upon the value of the property which it employs for the convenience of
29   the public equal to that generally being made at the same time and in the
30   same general part of the country on investments in other business
31   undertakings which are attended by corresponding risks and
32   uncertainties; but it has no constitutional right to profits such as are
33   realized or anticipated in highly profitable enterprises or speculative
34   ventures. The return should be reasonably sufficient to assure

1   confidence in the financial soundness of the utility and should be
2   adequate, under efficient and economical management, to maintain and
3   support its credit, and enable it to raise the money necessary for the
4   proper discharge of its public duties.5
5
6   In the above finding, the Court found that utilities are entitled to earn a return on

7   investments of comparable risks and that corresponding return should be sufficient

8   enough to support credit activities and to raise funds to carry out its mission.

9

10   In the often-cited case of *Federal Power Commission v. Hope Natural Gas*

11   *Company*, 320 U.S. 591 (1944), the U.S. Supreme Court recognized that utilities

12   compete with other firms in the market for investor capital. Historically, this case

13   has provided legal and policy guidance concerning the return which public utilities

14   should be allowed to earn.

15

16   In *Hope Natural Gas*, the U.S. Supreme Court stated that the return to equity

17   owners (or shareholders) of a regulated public utility should be "commensurate" to

18   returns on investments in *other* enterprises whose "*risks* correspond" to those of the

19   utility being examined:

20

21   [T]he return to the equity owner should be commensurate with returns
22   on investments in other enterprises having corresponding risks. That
23   return, moreover, should be sufficient to assure confidence in the
24   financial integrity of the enterprise so as to maintain credit and attract
25   capital. (320 U.S. at 603).
26

27   **V.   Development of Proxy Group**

28

29   **Q.   PLEASE DESCRIBE HOW YOU SELECTED A PROXY GROUP FOR**

30   **ESTIMATING PEOPLES' RETURN ON EQUITY.**

31   A.   The number of available gas utilities needed to develop a reasonably reliable proxy

32   group is dwindling. Over the past three years, several gas utilities, such as AGL

33   Resources and Piedmont Natural Gas, have announced that they are being acquired

34   by large electric utility holding companies. These acquisitions make sense for the

1 electric utilities as they desire to grow their source of regulated earnings while, at

2 the same time, control the pipelines over which they can control future deliveries

3 of natural gas, which expects to be the predominant fuel choice of electric utilities

4 for many years to come.

5

6 I have chosen to use the companies used by Mr. Moul in his proxy group However,

7 in contrast to Mr. Moul, I did not remove UGI from my proxy group.

8

9 In addition, I see no benefit in a subgroup of natural gas companies as espoused by

10 Mr. Moul in his analysis.

11

12 **Q.** **PLEASE DESCRIBE YOUR CRITICISM OF MR. MOUL'S SUBGROUP**

13 **OF PROXY COMPANIES.**

14 A. All of the companies listed in Mr. Moul's subgroup of proxy companies are also

15 companies that are components of this primary gas group. As a result, Mr. Moul's

16 subgroup does not provide any new information in the analysis and is, essentially,

17 duplicative and unnecessary.

18

19 **Q.** **WHY DID YOU CHOOSE TO INCLUDE UGI WHEN MR. MOUL**

20 **OMITTED THE COMPANY FROM HIS ANALYSIS?**

21 A. On Exhibit PRM-1, Page 6 of 30, Schedule 3 [2 of 2], Mr. Moul states that he

22 omitted UGI because the company was a diversified business that, along with the

23 natural gas utility, contained propane, international liquid propane gas (LPG),

24 energy service, and electric generation. However, Chesapeake Utilities, which Mr.

25 Moul chose to include in his proxy group, operates a diverse set of businesses that

26 include natural gas distribution, natural gas transmission, electric distribution

27 operations, propane distribution, propane wholesale marketing and natural gas

28 marketing operations, and real estate operations. I do not feel it appropriate to

29 include one diverse company and exclude another.

30

1 **Q.** **WILL AN ANALYSIS OF A COMPANY WITH SEVERAL**
2 **UNREGULATED OPERATIONS RESULT IN HIGHER RATE OF**
3 **RETURN RESULTS THAN IF THE PROCEDURE HAD BEEN APPLIED**
4 **TO A STAND-ALONE GAS UTILITY OPERATING WITHOUT ANY**
5 **UNREGULATED BUSINESSES?**

6 A. A regulated utility faces significantly less risk than a typical unregulated company
7 and, as such, should derive a lower return for the lower risk. For the greatest part,
8 state legislatures grant regulated utilities a monopolistic service territory. Thus, for
9 example, if a home (or business) is located in Peoples service territory and they
10 decide to take natural gas service, then the occupants of that home (or the owners
11 of that business) must pay Peoples for the use of its gas distribution pipes. If that
12 regulated utility persuades its regulator that higher rates are required not only to
13 keep the utility solvent but also to provide it with the opportunity to earn a just and
14 reasonable return (or profit), then that rate increase will be granted and all of the
15 utility's customers will have to pay whatever is approved.

16

17 Additionally, gas utilities face less risk than other industries because the demand
18 for natural gas is relatively inelastic. By "inelastic," I mean that changes in the
19 price of gas distribution service are generally not considered to affect the demand
20 for this service to a noticeable degree. Here, this means that, consumers generally
21 do not limit their use of natural gas due to weather variations, for example when
22 the weather gets cold.

23

1
2
3   ## VI.   Capital Structure
4
5 **Q.   WHAT IS A CAPITAL STRUCTURE AND HOW WILL IT IMPACT THE**
6   **REVENUES THAT PEOPLES OR ANY OTHER UTILITY IS SEEKING IN**
7   **A RATE CASE?**

8 A.   The term "capital structure" refers to the relative percentage of debt, equity, and
9   other financial components that are used to finance a company's investments. For
10   simplicity, there are three financing methods. The <u>first</u> method is to finance an
11   investment with common equity, which essentially represents ownership in a
12   company and its investments. Returns on common equity, which in part take the
13   form of dividends to stockholders, are not tax deductible which, on a pre-tax basis
14   alone, makes this form of financing about 28% more expensive than debt financing.
15   The <u>second</u> form of corporate financing is preferred stock, which is normally used
16   to a much smaller degree in capital structures. Dividend payments associated with
17   preferred stock are not tax deductible. Corporate debt is the <u>third</u> major form of
18   financing used in the corporate world. There are two basic types of corporate debt:
19   long-term and short-term. Long-term debt is generally understood to be debt that
20   matures in a period of more than one year. Short-term debt is debt that matures in
21   a year or less. Both long-term debt and short-term debt represent liabilities on the
22   company's books that must be repaid prior to any common stockholders or
23   preferred stockholders receiving a return on their investment

24

25 **Q.   HOW IS A UTILITY'S TOTAL RETURN CALCULATED?**
26 A.   A utility's total return is developed by multiplying the component percentages of
27   its capital structure represented by the percentage ratios of the various forms of
28   capital financing relative to the total financing on the company's books by the cost
29   rates associated with each form of capital and then totaling the results over all of
30   the capital components. When these percentage ratios are applied to various cost
31   rates, a total after-tax rate of return is developed. Because the utility must pay

1   dividends associated with common equity and preferred stock with after-tax funds,

2   the post-tax returns are then converted to pre-tax returns by grossing up the

3   common equity and preferred stock dividends for taxes. The final pre-tax return is

4   then multiplied by the Company's rate base in order to develop the amount of

5   money that customers must pay to the utility for return on investment and tax

6   payments associated with that investment.

7

8 **Q.**   **HOW DOES CAPITAL STRUCTURE IMPACT THIS CALCULATION?**

9 A.   Costs to consumers are greater when the utility finances a higher proportion of its

10   rate base investment with common equity and preferred stock versus long-term

11   debt. However, long-term debt, which is first in line for repayment, imposes a

12   contractual obligation to make fixed payments on a pre-established schedule, as

13   opposed to common equity where no similar obligations exist.

14

15 **Q.**   **WHY SHOULD THIS COMMISSION BE CONCERNED ABOUT HOW**

16   **PEOPLES FINANCES ITS RATE BASE INVESTMENT?**

17 A.   There are two reasons that the Commission should be concerned about how Peoples

18   finances its rate base investment. First, Peoples' cost of common equity is higher

19   than the cost of long-term debt, meaning that an equity percentage above an optimal

20   level will translate into higher costs to Peoples' customers without any corresponding

21   improvement in quality of service. Long-term debt is a financial promise made by

22   the company and is carried as a liability on the company's books. Common stock is

23   ownership in the company. Due to the nature of this investment, common

24   stockholders require higher rates of return to compensate them for the extra risk

25   involved in owning part of the company versus having a more senior claim against

26   the company's assets.

27

28   The second reason the Commission should be concerned about Peoples' capital

29   structure is due to the tax treatment of debt versus common equity. Public

30   corporations, such as Peoples, can deduct payments associated with debt financing.

1   Corporations are not, however, allowed to deduct common stock dividend
2   payments for tax purposes. All dividend payments must be made with after-tax
3   funds, which are more expensive than pre-tax funds. Because the regulatory
4   process allows utilities to recover reasonable and prudent expenses, including taxes,
5   rates must be set so that the utility pays all its taxes and has enough left over to pay
6   its common stock dividend. If a utility is allowed to use a capital structure for
7   ratemaking purposes that is top-heavy in common stock, customers will be forced
8   to pay the associated income tax burden, resulting in unjust, unreasonable, and
9   unnecessarily high rates. Setting rates through the use of capital structure that is
10   top-heavy in common equity violates the fundamental principles of utility
11   regulation that rates must be just and reasonable and only high enough to support
12   the utility's provision of safe, adequate, and reliable service at a fair price.

13

14   **Q.   HOW IS SETTING A CAPITAL STRUCTURE FOR A RATE-**
15   **REGULATED GAS UTILITY COMPANY DIFFERENT THAN SETTING**
16   **A CAPITAL STRUCTURE FOR A NON-REGULATED COMPANY THAT**
17   **OPERATES IN A COMPETITIVE ENVIRONMENT?**

18   A.   Unregulated companies in competitive markets must carefully weigh the risk of
19   using lower cost debt that can be used to leverage profits versus the use of the more
20   expensive common equity that dilutes profits. Such a capital sourcing decision is
21   based, in large part, on the competitive nature of the business in which the entity
22   operates.

23

24   In the case of a rate-regulated gas utility with a licensed service territory that has
25   little-to-no competition in its service territory, there is a strong incentive for the
26   company to use common equity to build assets that can be placed in rate base. The
27   utility is guaranteed the opportunity to earn its allowed rate of return on plant
28   investment and, as such, can maximize profits by building plant and receiving
29   favorable regulatory treatment from state regulators. In essence, normal
30   competitive markets serve to lower capital costs through efficient capital cost

14

1   decisions whereas gas utility rate regulation can act as an incentive for plant

2   investment.

3

4   **Q.   PLEASE EXPLAIN HOW ONGOING CONSTRUCTION NEEDS ARE**

5   **IMPACTING UTILITIES AND THEIR CUSTOMERS.**

6   A.   Utilities finance construction with three primary sources of capital: retained

7   earnings; common equity issuances; and long-term debt issuances. Financing

8   construction with retained earnings is preferable to the utility because using funds

9   from ongoing operations does not dilute common equity (as would an equity

10   issuance) and does not add debt leverage to the utility's balance sheet. However,

11   in most cases, financing a large asset with only retained earnings may not be

12   possible due to sheer size of the plant investment. As a result, utilities undergoing

13   large construction projects often issue common equity or long-term debt to finance

14   these projects.

15

16   Selecting the ratio of equity to debt is important. Entities in more competitive

17   markets have a profit motive that provides an incentive for such entities to select

18   the most efficient capitalization ratio. However, gas utilities operating in exclusive,

19   rate-regulated service territories have an incentive to maximize the amount of

20   common equity in their capital structure so as to increase rates and,

21   correspondingly, the utility profit. Rate-regulated gas utilities should only be

22   allowed to recover in rates a revenue requirement derived from a capitalization ratio

23   that allows the utility to provide reliable service at the least cost. Finding the right

24   balance between debt and equity is critical.

25

26   **Q.   PLEASE EXPLAIN THE RAMIFICATIONS OF RATES BEING SET AT**

27   **AN UNBALANCED DEBT/EQUITY LEVEL.**

28   A.   If a utility issues too much common equity and not enough debt for a certain project,

29   the consuming public pays higher rates to support a capital structure that is neither

30   prudent nor reasonable. It is also important to recognize how rate levels affect

15

1   economic development. The reality in today's economy is that economic

2   development occurs in places where costs are lower. A utility with high rates will,

3   all else being equal, cause its service territory to lose out on economic development

4   opportunities.

5

6   If, on the other hand, the utility incurs too much debt, the utility's capitalization

7   ratios presents excess financial risk to the capital markets, thereby driving up the

8   costs required by the markets to compensate them for the added risk. In this case,

9   the consumer would also lose because the cost it must pay the utility for accessing

10   the capital markets is higher than it would pay using a less debt-leveraged capital

11   structure.

12

13   One role of regulation is to balance the needs of the capital markets, including

14   utility stockholders, with the needs of ratepayers. Too much equity or too much

15   debt can harm both the stockholders of the corporation as well as the consuming

16   public. Careful study of the risks and costs of various capitalization ratios is

17   important.

18

19   **Q.**   **HAVE YOU REVIEWED THE CAPITAL STRUCTURE REQUESTED BY**

20   **THE COMPANY IN THIS PROCEEDING?**

21   A.   Yes, I have.

22

23   **Q.**   **WHAT CAPITAL STRUCTURE IS SEEKING IN THIS CASE?**

24   A.   According to the pre-filed Direct testimony of Company Witness Moul, Peoples

25   Natural Gas is seeking the following capital structure:

26

1

2   Table 3: Peoples Requested Capital Structure

Component	Capital Structure Ratio (%)
Long-Term Debt	46.34%
Common Equity	<u>53.66%</u>
Total Capitalization	100.00%

3

4   **Q.   WHAT IS THE AVERAGE COMMON EQUITY RATIO OF THE**

5   **COMPANIES IN YOUR PROXY GROUP?**

6   A.   Table 4 below shows the average common equity ratio of each company in the

7   proxy group.

8

9   Table 4: Proxy Group Equity Ratio[8]

Company	2018E Ratio
Atmos	65.7%
Chesapeake	68.0%
NiSource	45.0%
New Jersey Nat Gas	54.6%
NWNG	52.5%
OneGas	61.5%
Peoples	50.0%
Southwest Gas	51.0%
Spire	54.3%
UGI	<u>44.6%</u>
Average	**54.7%**

10

11

12   As can be seen in the table above, the average common equity ratio in the proxy

13   group is 54.7%, which is above the requested equity ratio in this case of 53.66%.

---

[8] *The Value Line Investment Survey*, Dec 14, 2018; Jan. 25, 2019; and Feb. 15, 2019.

1

2 **Q.** **WHAT IS THE AVERAGE COMMON EQUITY RATIO GRANTED BY**

3 **UTIILTY REGULATORS ACROSS THE UNITED STATES IN 2018?**

4 A. The average common equity ratio granted by regulators in 2018 to gas utilities was

5 50.09%.[9]

6

7 **Q.** **WHAT COMMON EQUITY RATIO HAVE STATE REGULATORS**

8 **ACROSS THE UNITED STATES GRANTED TO NATURAL GAS**

9 **UTILITIES OVER THE PAST 15 YEARS?**

10 A. State regulators have been quite consistent in their rulings in natural gas cases over

11 the past 15 years. From 2004 through 2018, common equity ratios have ranged from

12 roughly 45% to 52%. The average common equity ratio for each year over the past

13 15 years can be seen in Chart 3 below.

14

15 Chart 3: Common Equity Ratio Granted by State Regulators (2004-2018)

16

17

18

---
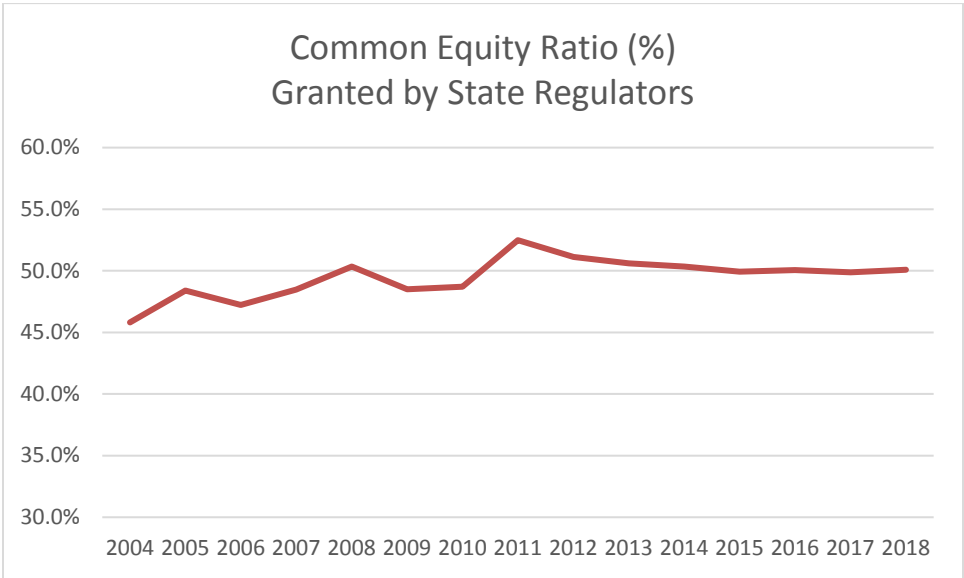
[9] S&P Global Market Intelligence, RRA Regulatory Focus Major Rate Case Decisions – January – December 2018, Jan. 31, 2019.

1   The data for Chart 3 is found in Table 5 below.

2

3   Table 5:   Common Equity Ratios

Year	Common Equity (%)
2004	45.81%
2005	48.40%
2006	47.24%
2007	48.47%
2008	50.35%
2009	48.49%
2010	48.70%
2011	52.49%
2012	51.13%
2013	50.60%
2014	50.35%
2015	49.93%
2016	50.06%
2017	49.88%
2018	50.09%
Average	**49.47%**

4

5   The average common equity ratio from 2004 through 2018 was slightly

6   below 50%, at 49.47%.

7

8   **Q**.   **PLEASE SUMMARIZE YOUR FINDINGS IN REGARD TO THE**

9   **REQUESTED EQUITY RATO IN THIS CASE RELATIVE TO THE**

10   **EQUITY RATIO OF OTHER GAS UTILITIES.**

11   A.   Table 6 below provides a summary of how Peoples' request in this case compares

12   to the following equity ratios: the equity ratio requested by the Company, the equity

13   ratio of the proxy group, and the average allowed equity ratio by state regulators

14   across the country in 2018.

15

1

Table 6: Common Equity Comparison	
Peoples Request	53.66%
Proxy Group Average	54.70%
2018 Average Reg Eq Ratio	50.09%

2

3 **Q.** **GIVEN THE ABOVE, DO YOU BELIEVE THAT THE CAPITAL**
4   **STRUCTURE BEING PROPOSED BY PEOPLES IN THIS CASE IS**
5   **APPROPRIATE FOR RATEMAKING PURPOSES?**

6 A.   No. The requested capital structure for Peoples is not reasonable for ratemaking
7   purposes. Companies in the proxy group are involved in a wide array of different
8   businesses that involve more business risk than the distribution of natural gas within
9   a monopoly service territory. As such, it makes sense to offset the higher business
10   risk with lower financial risk associated with a higher common equity ratio.
11   However, consumers of Peoples should not pay higher rates associated with a
12   capital structure that consists of so much common equity which, as previously
13   discussed, is much more expensive than debt.

14

15   The Peoples requested capital structure results in a revenue requirement that costs
16   Pennsylvania consumers $8.3 million more than if the Company had requested a
17   more reasonable capital structure, such as one with a common equity ratio
18   equivalent to 2018 national average granted by state regulators.

19

20 **Q.** **WHAT CAPITAL STRUCTURE DO YOU RECOMMEND THIS**
21   **COMMISSION ADOPT FOR USE IN SETTING THE REVENUE**
22   **REQUIREMENT IN THIS CASE?**

23 A.   My recommendation is the Commission employ a capital structure that contains an
24   equity ratio that is equivalent to the common equity ratio granted by state regulators

20

1 across the country in 2018. Specifically, my recommended capital structure and

2 embedded cost of debt is as follows:

3

4 Table 7:   OCA Recommended Capital Structure

Component	Capital Structure Ratio (%)	Cost Rate (%)	Wgtd. Cost Rate (%)
Long-Term Debt	49.91%	4.24%	2.12%
Common Equity	<u>50.09%</u>	8.75%	<u>4.38%</u>
Total Capitalization	100.00%		6.50%

5
6
7 **VII.   Cost of Common Equity**
8
9 **Q.   PLEASE   EXPLAIN   HOW   THE   ISSUE   OF   DETERMINING   AN**

10 **APPROPRIATE   RETURN   ON   A   UTILITY'S   COMMON   EQUITY**

11 **INVESTMENT   FITS   INTO   A   REGULATORY   AUTHORITY'S**

12 **DETERMINATION OF JUST AND REASONABLE RATES FOR THE**

13 **UTILITY.**

14 A. In Pennsylvania, as in virtually all regulatory jurisdictions, a utility's rates generally

15 must be "just and reasonable." Thus, regulation recognizes that utilities are entitled

16 to an opportunity to recover the reasonable and prudent costs of providing service,

17 and the opportunity to earn a fair rate of return on the capital invested in the utility's

18 facilities, such as gas distribution equipment, buildings, vehicles, and similar long-

19 lived capital assets.

20

21 Q. **HOW DOES THE MANNER IN WHICH UTILITIES OBTAIN CAPITAL**

22 **FUNDING RELATE TO THE COMMISSION'S DETERMINATION OF**

23 **THE APPROPRIATE COST OF CAPITAL FOR A SPECIFIC UTILITY?**

1   A.   Utilities obtain capital funding through a combination of borrowing (debt
2   financing) and issuing stock (equity financing). Unless in the very rare event a
3   company's borrowing is determined to be imprudent, the determination of
4   ratepayer reimbursement for debt financing is generally uncontroversial, as the
5   amount is simply the principal and interest repaid by the company to bondholders.
6

7   In contrast, the determination of the allowed ROE is where disputes often arise.
8   The allowed ROE is the amount that is determined to be appropriate for the utility's
9   common stockholders to earn on the capital that they invest in the utility when they
10   buy its stock. If the regulatory authority sets the ROE too low, the stockholders
11   will not have the opportunity to earn a fair return and this may either cause existing
12   shareholders to sell their shares or deter new investors from buying shares. If, on
13   the other hand, the regulatory authority sets the ROE too high, the ratepayers will
14   pay too much. Because ratepayers cannot choose a different utility due to the
15   monopolistic service territory restrictions, countervailing competitive market
16   forces are absent and the resulting rates will be unjust and unreasonable to the
17   ratepayer.
18

19   **Q.**   **HOW IS THE ESTIMATED SHARE PRICE USED IN DETERMINING**
20   **THE LEVEL OF A UTILITY'S ALLOWED EARNINGS?**
21   A.   The required equity return, which is based on the market value of a utility's stock,
22   is combined with the cost of debt to produce the a company's "overall rate of
23   return", which is then applied to the net book value of the utility's investment,
24   otherwise known as the rate base. Under this procedure, the market price of a stock
25   is used only to determine the return that investors expect from that stock. That
26   expectation is then applied to the book value of the utility's investment to identify
27   the level of earnings that regulation should allow the utility the opportunity to earn.
28

1 Q. **WHAT IS THE "COMPARABLE EARNINGS" TEST AND HOW DOES**

2 **THAT FACTOR IN TO DETERMINING THE APPROPRIATE RETURN**

3 **ON EQUITY?**

4 A. The "comparable earnings" standard, i.e., that the earnings must be "commensurate

5 with the returns on investments in other enterprises having corresponding risks," is

6 derived from the Supreme Court's ruling in the *Hope Natural Gas* case to which I

7 earlier referred. In my opinion, enterprises of "corresponding" or comparable risk

8 are companies that are engaged in the same activities as Peoples and are also

9 regulated like Peoples.

10

11 Q. **HOW DO REGULATORY AUTHORITIES GO ABOUT DETERMINING A**

12 **JUST AND REASONABLE RATE OF RETURN ON EQUITY FOR A**

13 **UTILITY COMPANY?**

14 A. Regulatory commissions and boards, as well as financial industry analysts,

15 institutional investors, and individual investors, use different analytical models and

16 methodologies to estimate/calculate reasonable rates of return on equity. Among

17 the measures used are Discounted Cash Flow analysis, the Capital Asset Pricing

18 Model, and Comparable Earnings Analysis ("CEA"). I believe the most useful

19 methodology is the DCF Analysis, but I am also presenting the CAPM and the

20 Comparable Earnings Model as checks for my DCF results.

21

22 Q. **CAN YOU EXPLAIN WHY REGULATORY AUTHORITIES AND**

23 **FINANCIAL ANALYSTS NEED TO USE THESE METHODOLOGIES TO**

24 **DERIVE A COMPANY'S ESTIMATED RATE OF RETURN ON EQUITY?**

25 A. Yes. There is no direct, observable way to determine the rate of return required by

26 equity investors in any company or group of companies. Investors must make do

27 with indications from market data and analysts' predictions to estimate the

28 appropriate price of a share. The principal and most reliable methodology for

29 obtaining these indications is the Discounted Cash Flow procedure. Other

1   procedures, such as the CAPM and the comparable earnings method, are less

2   reliable than the DCF procedure.

3

4 **Q.**   **PLEASE EXPLAIN WHY YOU BELIEVE THE DCF MODEL IS**

5   **SUPERIOR TO THE CAPM AND RISK PREMIUM APPROACHES.**

6 A.   The DCF is a pure investor-driven model that incorporates current investor

7   expectations based on daily and ongoing market prices. When a situation develops

8   in a company that affects its earnings and/or perceived risk level, the price of the

9   stock adjusts immediately. Since the stock price is a major component in the DCF

10   model, the change in risk level and/or earnings expectations is captured in the

11   investor return requirement with either an upward or downward movement to

12   account for the change in the company.

13

14   The comparable earnings model is based on earned returns from book equity, not

15   market equity. There is no direct and immediate stockholder input into the

16   comparable earnings model and, as a fault, that model lacks a clear and unmistaken

17   link to stockholder expectations.

18

19   The CAPM suffers, to a degree, from the same problem as the comparable earnings

20   model in that there is not a direct and immediate link from stock market prices to

21   the CAPM result. The beta in the CAPM can reflect changes in the ROE, but the

22   delay can, sometimes, make the CAPM results meaningless.

23

24   **A.**   **DCF Model**

25 **Q.**   **PLEASE EXPLAIN THE DISCOUNTED CASH FLOW MODEL.**

26 A.   The DCF method is a widely used method for estimating an investor's required

27   return on a firm's common equity. In my thirty-one years of experience, first with

28   the Public Staff of the North Carolina Utilities Commission and later as a

29   consultant, I have seen the DCF method used much more often than any other

30   method for estimating the appropriate return on common equity. Consumer

1   advocate witnesses, utility witnesses and other intervenor witnesses have used the

2   DCF method, either by itself or in conjunction with other methods such as the

3   Comparable Earnings Method or the CAPM, in their analyses.

4

5   The DCF method is based on the concept that the price which the investor is willing

6   to pay for a stock is the discounted present value (i.e. its present worth) of what the

7   investor *expects* to receive in the future as a result of purchasing that stock. This

8   return to the investor is in the form of future dividends and price appreciation.

9   However, price appreciation is only realized when the investor sells the stock, and

10   a subsequent purchaser presumably is also focused on dividend growth following

11   his or her purchase of the stock. Mathematically, the relationship is:

12

13   Let D   =   dividends per share in the initial future period
14   g   =   expected growth rate in dividends
15   k   =   cost of equity capital
16   P   =   price of asset (or present value of a future stream of
17   dividends)

18

19   $$\text{then } P = \frac{D}{(1+k)} + \frac{D(1+g)}{(1+k)^2} + \frac{D(1+g)}{(1+k)^3} + \dots + \frac{D(1+g)}{(1+k)^t}$$

20

21

22   This equation represents the amount (P) an investor will be willing to pay *today* for

23   a share of common equity with a given dividend stream over (t) periods.

24

25   Reducing the formula to an infinite geometric series, we have:

26   $$P = \frac{D}{k-g}$$
27

28

29   Solving for k yields:

30   $$k = \frac{D}{P} + G$$
31

32

33

25

1   **Q.   MR. O'DONNELL, DO INVESTORS IN UTILITY COMMON STOCKS**

2   **REALLY USE THE CONSTANT GROWTH DCF MODEL IN MAKING**

3   **INVESTMENT DECISIONS?**

4   A.   Yes, I believe that to be so. There are three primary reasons for my conclusion.

5   First, there is much literature that supports the fact that, while emotional or so-

6   called "irrational" behavior in the short term may affect (and has affected) share

7   prices, over the long term a company's financial fundamentals drives the market.[10]

8   Second, analysts give great weight to earnings, dividend, and book value growth in

9   formulating their recommendations to clients. Finally, even a casual search on the

10   internet produces hundreds of pages discussing the definition of the DCF

11   methodology and how to apply it for investment decisions, from which I infer that

12   general investor interest in DCF analysis is significant and widespread.

13

14   Thus, in today's investment environment, a stock investor will likely calculate (or

15   seek a calculation of) the amount of funds he/she will receive relative to the initial

16   investment, which is defined as the current dividend yield, as well as the amount of

17   funds that the investor can expect in the future from the growth in the dividend. The

18   combination of the current dividend yield and the future growth in dividends is

19   central to the basic tenet of the DCF model.

20

21   **Q.   IS THE DCF FORMULA EASY TO UNDERSTAND?**

22   A.   Yes. While the DCF formula stated above may appear complicated, it is intuitively

23   a very simple model to understand. To determine the total rate of return one expects

24   from investing in a particular equity security, the investor adds the dividend yield,

---

[10] See, for example, "Valuation: Measuring and Managing the Value of Companies," 4th Edition, McKinsey & Company Inc., Tim Koller, Marc Goedhart, David Wessels ("Provided that a company's share price eventually returns to its intrinsic value in the long run, managers would benefit from using a discounted-cash-flow approach for strategic decisions. What should matter is the long-term behavior of the share price of a company, not whether it is undervalued by 5 or 10 percent at any given time." http://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/do-fundamentalsor-emotionsdrive-the-stock-market (accessed March 2, 2016). See also, for example, http://www.businessinsider.com/what-drives-the-stock-market-2012-8 (Accessed March 2, 2016).

1   which he or she expects to receive in the future, to the expected growth in dividends
2   over time. If the regulatory authority sets the rate at a fair level, the utility will be
3   able to attract capital at a reasonable cost, without forcing the utility's customers to
4   pay more than necessary to attract needed capital.
5
6   **Q.   CAN YOU GIVE AN EXAMPLE?**
7   A.   Yes. If investors expect a current dividend yield of 5%, and also expect that
8   dividends will grow at 4%, then the Constant Growth DCF model indicates that
9   investors would buy the utility's common stock if it provided a return on equity of
10   9%.
11
12 **Q.   WHAT DIVIDEND YIELD DO YOU THINK IS APPROPRIATE FOR USE**
13 **IN THE DCF MODEL?**
14 A.   I have calculated the appropriate dividend yield by averaging the dividend yield
15   expected over the next 12 months for each proxy company, as reported by the Value
16   Line Investment Survey. The period covered is from January 11, 2019 through
17   April 5, 2019. To study the short-term as well as long-term movements in dividend
18   yields, I examined the 13-week, 4-week, and 1-week dividend yields for the proxy
19   group. My results appear in Exhibit KWO-1 and show a dividend yield range of
20   2.5% to 2.6% for the proxy group.
21
22 **Q   PLEASE EXPLAIN HOW YOU DEVELOPED THE DIVIDEND YIELD**
23 **RANGES DISCUSSED ABOVE.**
24 A.   I developed the dividend yield range for the proxy group by averaging each
25   Company's Value Line forecasted 12-month dividend yield over the above-stated
26   13-week, and 4-week periods as well as examining the most recent forecasted 12-
27   month dividend yield reported by Value Line for each company. I averaged the
28   dividend yield over multiple time periods in order to minimize the possibility of an
29   isolated event skewing the DCF results.
30

27

1   **Q.**   **HOW DID YOU DERIVE THE EXPECTED GROWTH RATE?**

2   A.   I used several methods in determining the growth in dividends that investors expect.

3   The first method I used was an analysis commonly referred to as the "plowback

4   ratio" method. If a company is earning a rate of return (r) on its common equity,

5   and it retains a percentage of these earnings (b), then each year the earnings per

6   share (EPS) are expected to increase by the product (br) of its earnings per share in

7   the previous year. Therefore, br is a good measure of growth in dividends per share.

8   For example, if a company earns 10% on its equity and retains 50% (the other 50%

9   being paid out in dividends), then the expected growth rate in earnings and

10   dividends is 5% (50% of 10%). To calculate a plowback for the proxy group, I

11   used the following formula:

12

13             $\underline{br(2017)\ +\ br(2018E)\ +\ br(2019E)\ +\ br(2022E\text{-}2024E\ Avg)}$

14   g =   4

15

16   The plowback estimates for all companies in the proxy group can be obtained from

17   <u>The Value Line Investment Survey</u> under the title "percent retained to common

18   equity." Exhibit KWO-2 lists the plowback ratios for each company in the proxy

19   group.

20

21   A key component in the DCF Method is the expected growth in dividends. In

22   analyzing the proper dividend growth rate to use in the DCF Method, the analyst

23   must consider how dividends are created. Since over the long term dividends cannot

24   be paid out without a corporation first earning the funds paid out, earnings growth

25   is a key element in analyzing what if any growth can be expected in dividends.

26   Similarly, what remains in a corporation after it pays its dividend is reinvested, or

27   "plowed back", into a corporation in order to generate future growth. As a result,

28   book value growth is another element that, in my opinion, must be considered in

29   analyzing a corporation's expected dividend growth. To analyze the expected

30   growth in dividends, I believe the analyst should first examine the historical record

1   of past earnings, dividends, and book value. Hence, the second method I used to

2   estimate the expected growth rate was to analyze the historical 10-year and 5-year

3   historical compound annual rates of change for earnings per share (EPS), dividends

4   per share (DPS), and book value per share (BPS) as reported by Value Line for each

5   of the relevant corporations.

6

7   Value Line is the most recognized investment publication in the industry and, as

8   such, is used by professional money managers, financial analysts, and individual

9   investors worldwide. A prudent investor tries to examine all aspects of an

10 enterprise's performance when making a capital investment decision. As such, it is

11 only practical to examine historical growth rates for the corporation for which the

12 analysis is being performed. The historical growth rates for the proxy group can be

13 seen in O'Donnell Exhibit KWO-1.

14

15 Some analysts do not present historical growth rates in their DCF analyses. I believe

16 analysts that do not present such available data fail to completely inform the

17 respective regulatory bodies of the full extent of information on which investors

18 base their expectations. In his analysis, Mr. Moul presents historical data, but he

19 opines that forecasted earnings should be provided more weight in the DCF

20 analysis.[11]

21

22 The third method I used was the Value Line forecasted compound annual rates of

23 change for earnings per share, dividends per share, and book value per share.

24

25 The fourth method I used was the forecasted rate of change for earnings per share

26 as recorded by CFRA, a publication of S&P Global Market Intelligence.

27

---

[11] Direct Testimony of Paul Moul, p. 32, l. 11-12.

1   The last method was another forecasted earnings growth rate as supplied to Charles

2   Schwab & Co. This forecasted rate of change is not a forecast supplied by Charles

3   Schwab & Co. but is, instead, a compilation of forecasts by industry analysts.

4

5   The details of my constant growth DCF analysis can be seen in Exhibit KWO-1.

6

7 **Q.** **SHOULD THE RESULTS REFLECTED IN EXHIBIT KWO-1 BE VIEWED**

8   **IN LIGHT OF FUNDAMENTAL DEVELOPMENTS IN THE NATURAL**

9   **GAS UTILITY INDUSTRY THAT HAVE OCCURRED DURING THE**

10   **PAST EIGHT YEARS?**

11 **A.** Yes. As the Commission is well aware, natural gas prices have plummeted since

12   2008. As a result of the drastically lower natural gas prices, many electric utilities

13   across the country are planning to meet their future electric load requirements

14   through the use of natural gas. Distribution utilities that derive profits from the

15   delivery of natural gas are now in high demand. For example, in 2016, AGL

16   Resources and Piedmont Natural Gas were both sold to their neighboring electric

17   utilities at sizable premiums. Remaining gas utilities are achieving solid growth as

18   natural gas is in high demand across the country.

19

20 **Q.** **WHAT IS THE INVESTOR RETURN REQUIREMENT FROM THE DCF**

21   **ANALYSIS?**

22 A.   As can be seen on Exhibit KWO-1, the dividend yield for the three timeframes

23   studied ranges from 2.5% to 2.6% for the proxy group.

24

25   In terms of the proper dividend growth rate to employ for the proxy group in the

26   DCF analysis, it is appropriate to examine the recent history of earnings and

27   dividend growth to assess and provide the best estimate of the dividend growth that

28   investors expect in the future. An examination of the 10-year and 5-year historical

29   growth rates for the proxy group show a change in the earnings and dividend growth

30   rates. For the 10-year history, on first review, earnings per share grew faster than

1   dividends per share. However, when the -11.5% growth rate for Northwest Natural

2   Gas is omitted, the earnings per share (4.6%) over the past 10 years is close to the

3   10-year historical dividends per share (4.9%). The same situation is also evident

4   in the 5-year historical growth rates. When the -22.0% for Northwest Natural Gas

5   is omitted, the average for the proxy group changes from 1.2% to 4.1%, which is

6   right in line with the 5-year average dividend growth rate of 4.9%. The forecast of

7   the proxy group's various growth rates is consistent with the understanding that

8   natural gas is growing in prominence in the energy industry around the country.

9   The forecasted growth rates from Value Line range from 5.1% to 10.0%. However,

10   the high end (10.0%) of the range is significantly influenced by the 25.5%

11   forecasted earnings per share for Northwest Natural Gas from Value Line.

12   Eliminating that one growth rate reduces the average Value Line forecasted

13   earnings per share from 10.0% to 8.1%.

14

15   In addition to the above forecasted Value Line growth rates, the plowback growth

16   rate for the proxy group is 4.5%, the CFRA forecasted EPS growth rate is 6.4%,

17   and the Schwab forecasted earnings growth rate is 6.2%.

18

19   The fact that the proxy group forecasted growth rates are all between roughly 5%

20   to 7% indicates that the natural gas utility industry is expecting solid and steady

21   growth in earnings, dividends, and book value in the future.

22

23   **Q.**   **IN ESTIMATING THE COST OF EQUITY AT THE PRESENT MOMENT,**

24   **SHOULD MORE WEIGHT BE PLACED ON FORECASTED GROWTH**

25   **RATES OR HISTORICAL GROWTH RATES AND HOW DOES YOUR**

26   **ANSWER AFFECT YOUR CONCLUSIONS AS TO THE PROPER**

27   **GROWTH RATE RANGE FOR PROXY GROUP OF COMPANIES IN THE**

28   **DCF ANALYSIS?**

29   **A.**   Due to the effects of the fundamental changes that have occurred in the natural gas

30   utility industry over the past eight years that I mentioned previously, I believe that

31

1   it is proper to place more weight on forecasted figures than historical figures in

2   estimating the cost of equity for the proxy group. As a result, I believe that the

3   proper growth rate range for the proxy group of companies to use in the DCF

4   analysis is 5.0% to 7.0%. This 5.0% to 7.0% growth rate range is in the center of

5   the Value Line forecasted growth rate range and is also above the plowback growth

6   rates and is slightly below the forecasted earnings growth rate of Schwab and

7   CFRA.

8

9 **Q.**   **SHOULD ONLY EARNINGS GROWTH RATES IN THE DCF**

10   **METHODOLOGY BE USED? IF NOT, WHAT DID YOU DO TO**

11   **MITIGATE THIS PROBLEM?**

12 **A.**   No. Since the DCF formula is dependent on future dividend growth, it would be

13   inaccurate to use only earnings growth rates in the DCF. Doing so produces

14   unrealistically high return on equity numbers that cannot be sustained in real life.

15   To mitigate this problem, I have presented EPS, DPS, and BPS figures to the

16   Commission and systematically explained my rationale for arriving at the above

17   stated growth rates. I believe it is incumbent upon every analyst presenting

18   testimony in this case to present such a robust analysis to the Commission.

19

20 **Q.**   **WHAT IS THE DCF RANGE THAT YOUR ANALYSES PRODUCED?**

21 **A.**   Combining the proxy group's dividend yield of 2.5% to 2.6% with the growth rate

22   range of 5.0% to 7.0% produces a DCF range of 7.5% to 9.6%. Based on this

23   analysis, the DCF results are in the range of 7.5% to 9.5%.

24

25

26   **B.**   **Comparable Earnings Analysis**

27

28 **Q.**   **PLEASE EXPLAIN HOW YOU PERFORMED THE COMPARABLE**

29   **EARNINGS ANALYSIS.**

30 A.   Exhibit KWO-3 presents a list of the earned returns on equity of the comparable

31   group over the period of 2017 through 2024. I picked this range to provide the

1   Commission with at least one historical return and five years of forecasted returns

2   (most 2015 returns are not yet final as of the date of this testimony). As can be seen

3   in this exhibit, the average earned returns on equity for the proxy group are all at-

4   or-below 9.5% until 2022-2024 when the average earned return is forecasted to

5   slightly increase to 10.6%.

6

7   **Q.   DO   YOU   HAVE   ANOTHER   COMPARABLE   EARNINGS**

8   **METHODOLOGY TO PRESENT IN THIS CASE?**

9   A.   Yes. It is important to understand what state regulatory commissions across the

10   country are allowing for earned ROEs. Allowed ROEs are widely known and

11   discussed in the financial community and investors take these regulatory decisions

12   into account when they set prices in the open market for which they are willing to

13   purchase the stock of a regulated utility.

14

15   As this Commission is likely aware, regulated ROEs have trended down over the

16   past 15 years. In Chart 4 below, I have provided a chart that shows the allowed

17   ROEs allowed for natural gas utilities by state regulators across the United States

18   from 2004 through 2018.

19

1

2 Chart 4: Allowed ROEs 2004 – 2018
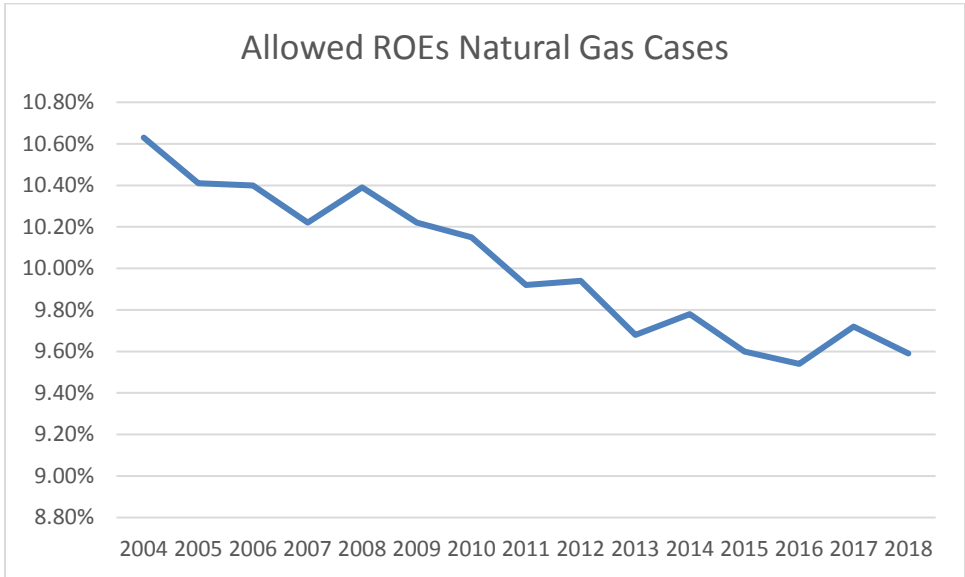
Allowed ROEs Natural Gas Cases

3

6

7

8 As for the most recent year, 2018, the overall allowed ROE for gas utilities was

9 9.59%, which was down from the 9.72% allowed by state regulators for gas utilities

10 in 2017.

11

12 **Q. WHAT CONCLUSIONS DO YOU DRAW FROM THE COMPARABLE**

13 **EARNINGS ANALYSIS?**

14 A. As noted previously, gas utilities are expected to have strong growth in the future

15 due to the abundance of natural gas now produced in the United States and the

16 increasing demand for natural gas services. Electric utilities, for example, are

17 turning almost entirely now to constructing natural gas generation plants as opposed

18 to nuclear and coal units. Hence, the strength in the natural gas industry should

19 continue unabated for several years to come.

20

1   Regulators across the United States have continued to recognize the decrease in

2   capital cost and, as found in Chart 4 above, steadily reduced the allowed returns of

3   utilities over the past 15 years.

4

5   Based on the above-stated findings, I believe the proper rate of return using a

6   comparable earnings analysis is in the range of 9.0% to 10.0%. This lower end of

7   this range is equal to the earned return of the proxy group in 2017 whereas the high

8   end of the range is at the midpoint between the Value Line forecasted earned return

9   on common equity for the proxy group in 2019 and 2022/2024. This average

10   allowed ROE for gas utilities, as reported by snl.com, is also in the midpoint of this

11   range of 9.0% to 10.0%.

12

13   **C.   Capital Asset Pricing Model (CAPM)**

14

15   **Q.   HAVE YOU PREVIOUSLY PRESENTED THE CAPM IN COST OF**

16   **EQUITY TESTIMONIES?**

17   A.   Yes, but I have not given it much weight. I have long maintained the application

18   of the CAPM can lead one to erroneous results when it is applied in an inaccurate

19   manner, such as when "forecasted" risk premiums or "forecasted" interest rates are

20   employed. For this reason, I have historically not used the CAPM in cost of equity

21   analyses. However, I am aware that this Commission relies primarily on the DCF

22   model, with consideration of other methods as a check. As a result, I am adding the

23   CAPM in my analysis to supplement my DCF analysis as well as my Comparable

24   Earnings analysis.

25   **Q.   PLEASE EXPLAIN THE CAPITAL ASSET PRICING MODEL.**

26   A.   The CAPM is a risk premium model that determines a firm's ROE relative to the

27   overall market return on equity. The formula for the CAPM is as follows:

28   $ROE = Rf + Beta [E(RM) – Rf]$

29   where ROE is the return on equity;

30   Rf is the risk-free rate;

35

1   Beta is the risk of the studied company relative to the overall market; and

2   E(RM) is the expected return on the market.

3

4   To be specific, the CAPM is a measure of firm-specific risk, known as unsystematic

5   risk and measured by beta, as well as overall market risk, otherwise known as

6   systematic risk and measured by the expected return on the market.

7   The CAPM calculates ROE based on a company's risk and can be restated as

8   follows:

9   ROE = Rf + (Beta * Risk Premium)

10   where Risk Premium represents the adjusted company-specific risk of the

11   company.

12

13   **Q.   HOW IS THE RISK-FREE RATE MEASURED?**

14   A.   The risk-free rate is designated as the yield on United States government bonds as

15   the risk of default is seen as highly unlikely. Utility witness and consumer

16   witnesses all use United States government bond yields as the risk-free rate in the

17   CAPM. However, what is often debated in the risk-free portion of the CAPM is the

18   term of those bonds. In my analysis for this case, I have developed risk premiums

19   relative to the 30-year US Treasury bonds as this time period is the longest available

20   in the marketplace, thereby affording consumers the longest protection at the risk-

21   free rate. Chart 1, which I provided earlier in this testimony, provides the yield on

22   30-year US Treasury bonds over the past year.

23

24   **Q.   IS THE CURRENT LEVEL OF INTEREST RATES EXPECTED TO**

25   **CHANGE MATERIALLY IN THE FORESEEABLE FUTURE?**

26   A.   No. Economic forecasters as well as the Federal Reserve all believe that the current

27   interest rate environment is expected to remain relatively stable for many years to

28   come. In fact, in June 16, 2016, Bloomberg published an article entitled "Yellen

1   Says Forces Holding Down Rates May Be Long Lasting." The key takeaway from

2   the article is the following statement:

3

4   In a press conference after the Fed held policy steady, Yellen spoke
5   of a sense that rates may be depressed by "factors that are not going
6   to be rapidly disappearing, but will be part of the new normal."[12]

7

8   The statement above is confirmed by the fact that the Federal Reserve recently

9   stated that it would not be increasing interest rates any further in 2019.[13]

10

11   **Q.   HOW IS BETA MEASURED IN THE CAPM?**

12   A.   Beta is a statistical calculation of a company's stock price movement relative to the

13   overall stock movement. A company whose stock price is less volatile than the

14   overall market will have a beta less than 1.0. A company whose stock price is more

15   volatile than the overall market will have a beta more than 1.0. Since utilities are

16   generally conservative equity investments, utility betas are almost always less than

17   1.0.

18

19   **Q.   WHAT IS THE CURRENT MARKET RISK PREMIUM APPROPRIATE**

20   **FOR USE IN THE CAPM?**

21   A.   The development of the current market risk premium is, undoubtedly, the most

22   controversial aspect of the CAPM calculations. To gauge the historical risk

23   premium, I turned to the Ibbotson database published by Morningstar. The long-

24   term geometric and arithmetic returns for both equities and fixed income securities

25   and the resulting risk premiums are as follows:

---

[12]https://www.bloomberg.com/news/articles/2016-06-15/yellen-seems-to-sign-on-to-summers-view-of-lingering-low-rates
[13] https://www.cnbc.com/2019/03/20/fed-leaves-rates-unchanged.html

1   Table 8:   Equity Risk Premium Calculations

Asset Class	Geometric Mean	Arithmetic Mean
Large Company Stocks	10.10%	12.10%
Long-Term Govt. Bonds	5.50%	5.90%
Resulting Risk Premium	4.60%	6.20%

Source: Ibbotson® SBBI®, 2014 Classic Yearbook:
Market Results for Stocks, Bonds, Bills, and Inflation,
1926–2013 (Chicago: Morningstar, 2014).

2

3 **Q.   WHAT MARKET RETURNS ARE WELL-KNOWN PROFESSIONAL**
4 **INVESTORS EXPECTING FOR THE FORESEEABLE FUTURE?**

5 A.   On January 10, 2019, Morningstar.com published an article entitled "Experts
6   Forecast Long-Term Stock and Bond Returns: 2019 Edition."[14] By future returns,
7   these market experts are discussing total market returns, and not just the equity risk
8   premium. Below are some of the market return forecasts from this article:

9   BlackRock Investment Institute
10 7% nominal (not inflation adjusted) return for US large caps over the next decade
11 and 9% for non-US large caps.
12
13 John Bogle, Founder of Vanguard Group
14 4% - 5% nominal equity returns during the next decade
15
16 Grantham, Mayo, & van Otterloo ("GMO")
17 -4.1% real (inflation adjusted) returns for US large caps over the next 7 years
18
19 JP Morgan Asset Management
20 5.25% nominal return for US equities over a 10-15 year horizon
21
22

---

[14]https://www.morningstar.com/articles/907378/experts-forecast-longterm-stock-and-bond-returns-2.html

1   Morningstar Investment Management
2   1.8% 10-year nominal returns for US stocks

3   Research Affiliates
4   0.7% real (inflation adjusted) returns for US large caps furring the next 10 years
5
6   Vanguard
7   Nominal equity market returns of 3% to 5% during the next decade

8

9   The above-stated equity returns display a very large range. On the low side is

10   GMO, which forecasts that US large caps will, after inflation, lose 4.1% of asset

11   value annually over the next seven years. On the more positive side is BlackRock

12   Investment that expects a nominal (before inflation adjustment) of 7% per year. Of

13   the above-stated returns, Vanguard, John Bogle, JP Morgan, and BlackRock all

14   forecast nominal (not inflation adjusted) returns in the range of 3% to 7%. A mid-

15   range estimate is 4% to 6% for the group.

16

17   In 2018, Duke University finance professors published their annual equity risk

18   premium estimates that stated the expected average risk premium exhibited by a

19   survey of U.S. Chief Financial Officers around the country is 4.42%. [15] The article

20   states as follows:

21

22   During the past 18 years, we have collected almost 25,000 responses
23   to the survey. Panel A of Table 1 presents the date that the survey
24   window opened, the number of responses for each survey, the 10-
25   year Treasury bond rate, as well as the average and median expected
26   excess returns. There is relatively little time variation in the risk
27   premium. This is confirmed in Fig. 1a, which displays the historical
28   risk premiums contained in Table 1. **The current premium, 4.42%,**
29   **is above the historical average of 3.64%**. The December 2017
30   survey shows that the expected annual S&P 500 return is 6.79%
31   (=4.42%+2.37%) which is slightly below the overall average of
32   7.11%. The total return forecasts are presented in Fig. 1b.2 [16]
33   (underline and bold added)

[15] "The Equity Risk Premium in 2018", John R. Graham and, Campbell R Harvey, Duke University, March 28, 2018, p. 3-4.
[16] Id, p. 3-4.

1

2 Q. **WHAT IS YOUR CONCLUSION AS TO THE ESTIMATED EQUITY RISK**
3   **PREMIUM FOR USE IN THE CAPM?**
4 A. Using historical data as well as ex ante (forecasts) data, the evidence suggests the
5   equity risk premium is clearly within the range of 4% to 6%.
6

7 Q. **HOW DID YOU DETERMINE THE BETA YOU USED IN THE CAPM?**
8 A. I used the Value Line derived beta that I found in the most recent Value Line
9   editions for each company in the proxy group.
10

11 Q. **WHAT WERE YOUR CAPM RESULTS?**
12 A. The actual calculations for the CAPM can be seen in Schedule KWO-4. The yield
13   on 30-year US Treasury yields (Rf) has ranged from 2.81% to 3.46% in the past
14   year. The average beta for the proxy group is 0.69 which, when multiplied by the
15   risk premium range of 4.0% to 6.0%, produces a beta-adjusted risk premium of
16   2.76% to 4.14%. The 30-year US Treasury yield (Rf) range of 2.81% to 3.46% is
17   next added to the beta-adjusted risk premium range of 2.76% to 4.14% to arrive at
18   the proxy group CAPM result range of 5.6% (2.81% + 2.76% = 5.57%, rounded up
19   to 5.6%) to 7.6% (3.46% + 4.14% = 7.60%).
20

21   Based on this range of results for the CAPM, I find the proper ROE derived from
22   the CAPM is in the range of 5.5% to 7.5%. The low-end (5.5%) of this range is at
23   the low-end of the proxy group CAPM results using the 4.0% of the equity risk
24   premium.   The high end (7.5%) of the range is approximately equal to the high end
25   of the proxy group CAPM results.
26

27   **D.   Return on Equity Summary**
28 Q. **MR. O'DONNELL, PLEASE SUMMARIZE THE RESULTS OF YOUR**
29   **ROE ANALYSIS IN THIS CASE.**

1   A.   Table 9 below lists the results of my DCF analysis, the comparable earnings

2   analysis, and CAPM analysis.

3

4   Table 9:   ROE Method Results

	ROE Results	
Method	Low	High
DCF	7.50%	9.50%
Comparable Earnings	9.0%	10.0%
CAPM	5.50%	7.50%

5

6   **Q.   WHAT IS YOUR RETURN ON EQUITY RECOMMENDATION IN THIS**

7   **PROCEEDING?**

8   A.   My recommendation in this case is for the Commission to grant Peoples Gas a

9   return on equity of 8.75%. This 8.75% ROE is slightly above the midpoint of the

10   DCF results for the proxy group, well above the CAPM results, and slightly below

11   the Comparable Earnings results.

12

13 **Q.   THE RANGE OF RESULTS FOR THE COMPARABLE EARNINGS ARE**

14 **HIGHER THAN THE RESULTS OF YOUR DCF ANALYSES. IS THERE**

15 **A REASON FOR THIS?**

16 A.   Yes. The stock market continues to be in a bullish position whereby stockholders

17   are paying strong premiums for equities that produce solid dividends. As a result,

18   investors are essentially saying that they are willing to pay more for stocks with

19   future strong dividend growth. When stockholders pay more for a security, the

20   dividend yield, which is roughly half of the DCF model goes down. Hence, when

21   investors pay more for a certain stock, the lower cost of equity is immediately

22   reflected in the DCF model.

1

2 **Q. WOULD YOU PLEASE PROVIDE THE REASONS FOR YOUR**

3 **RECOMMENDATION?**

4 **A.** In making this recommendation, I am herein recognizing the strength of the stock

5 market over the past two years and am actually recommending a ROE slightly

6 higher than midpoint of the DCF results which, in my opinion, is the most indicative

7 result of investor expectations for earned returns of Peoples and similar gas utilities.

8

9 As the Commission is aware, interest rates remain quite low relative to historic

10 levels. Individuals seeking an income stream see utility dividends as good

11 alternatives at the present time with the lack of adequate fixed income (bond)

12 opportunities. As a result, utility stock prices have soared in the past year. Chart 5

13 below shows the tremendous jump in the Dow Jones Utility Average over the past

14 year.

15

16 Chart 5: Dow Jones Utility Average

17

18 Source: Yahoo Finance accessed on 3-29-19.

19

20 When stock prices increase, dividend *yields* decrease even though the dollar amount

21 of the dividend remains the same or even increases. Hence, over the past years, the

22 increase in utility stock prices has driven dividend yields of utility stocks

42

1   downward. Thus, we cannot ignore the current low cost of capital environment. If

2   a utility's rates are set too high, the economy in its service territory will suffer and

3   stockholders will receive a windfall at the expense of captive ratepayers.

4

5   **Q.   WHAT IS YOUR OVERALL RECOMMENDED RATE OF RETURN IN**

6   **THIS PROCEEDING?**

7   A.   The overall rate of return I am recommending is 6.50% and can be seen in the table

8   below.

9

10   Table 10:   Recommended Overall Rate of Return

Component	Capital Structure Ratio (%)	Cost Rate (%)	Wgtd. Cost Rate (%)
Long-Term Debt	49.91%	4.24%	2.12%
Common Equity	50.09%	8.75%	4.38%
Total Capitalization	100.00%		6.50%

11

12

13 **VIII.   Review of Cost of Equity Analysis of Company Witness Moul**

14

15 **Q.   HOW DID MR. MOUL DEVELOP HIS LIST OF COMPARABLE**

16 **COMPANIES?**

17 A.   Mr. Moul used the S&P Utilities as a basis for developing his primary comparable

18 group. The companies he chooses from his S&P Utilities list are also followed by

19 The Value Line Investment Survey. Mr. Moul then developed a subgroup from his

20 primary group.

21

22 **Q.   WHAT METHODS DID MR. MOUL USE IN HIS ANALYSIS OF THE**

23 **COST OF EQUITY IN THIS PROCEEDING?**

24 A.   Mr. Moul used the Constant Growth Discounted Cash Flow (DCF) model, the

25 Comparable Earnings Method, the Capital Asset Pricing Model (CAPM), and the

43

1   Bond Yield Plus Risk Premium model in this case. Since the CAPM is a risk

2   premium model similar in nature to the Bond Yield Plus Risk Premium model, Mr.

3   Moul is essentially employing a risk-premium model in two forms in his cost of

4   equity analysis in this case.

5

6   Q.   **DO YOU AGREE WITH THE METHODS THAT MR. MOUL USED TO**

7   **ESTIMATE PEOPLES GAS' COST OF EQUITY?**

8   A.   No. I do not believe the Commission should rely upon Mr. Moul's risk-premium

9   models (*i.e.*, the CAPM and Bond Yield Plus Risk Premium model) for the reasons

10   discussed below. Instead, I recommend that the Commission rely on the results of

11   my application of the DCF model, with some consideration of the results of the

12   CAPM and Comparable Earnings method as I have set forth above, to estimate the

13   cost of equity for Peoples Gas.

14

15   **A.   Review of Moul DCF Analysis**

16 Q.   **WHAT   IS   THE   PRIMARY   DIFFERENCE   BETWEEN   YOUR**

17   **APPLICATION OF THE DCF MODEL AND MR. MOUL'S APPLICATION**

18   **OF THE DCF?**

19 A.   The primary difference between my application of the DCF model and Mr. Moul's

20   application of the Constant Growth DCF model is Mr. Moul's unique 142 basis

21   point financial risk adjustment. This adjustment stems from Mr. Moul's apparent

22   belief that investors are unaware of debt on the Company's books and, therefore,

23   they must be compensated for the additional risk. To this point, Mr. Moul states:

24

25   My point is that when we use a market-determined cost of equity
26   developed from the DCF Model, it reflects a level of financial risk
27   that is different (in this case, lower) from the capital structure stated
28   at book value. [17]
29

---

[17] Prefiled direct testimony of Paul Moul, p. 37

1 **Q.** **DO YOU AGREE WITH MR. MOUL'S STATEMENT THAT HIS 142**
2 **POINT LEVERAGE ADDER IS NOT A MARKET-TO-BOOK RATIO**
3 **ADJUSTMENT?**

4 A. No. Mr. Moul's leverage adjustment is a market-to-book ratio adder that inflates
5 his DCF results.

6

7 I have been providing ROE testimony to state regulatory bodies for over 33 years.
8 I have seen Mr. Moul's market-to-book ratios in years past. In these other
9 applications, the proposed ROE was adjusted upwards to account for a market value
10 that was less than the book value. In the current case, Mr. Moul proposes a similar
11 upward adjustment to his proposed ROE because utility market values are higher
12 than book values. Hence, I have seen this market-to-book adjustment used to raise
13 the recommended ROE in times when market values were above and below the
14 book values. Such an adjustment serves only one purpose and that is to raise the
15 recommended ROE for utility witness in general rate proceedings.

16

17 **Q.** **HAS THIS COMMISSION RULED ON MR. MOUL'S "LEVERAGE"**
18 **ADJUSTMENT?**

19 A. Many years ago, the Pennsylvania Public Utility Commission did accept Mr.
20 Moul's "leverage" adjustment. However, since that time, this Commission has
21 rejected this adjustment. Specifically, in the 2012 PPL rate case, the Commission
22 determined:

23

24   The fact that we have granted leverage adjustments in a few select
25   cases in the past as noted by PPL does not mean that such
26   adjustments are warranted in all cases. The award of such an
27   adjustment is not precedential but discretionary with the
28   Commission. In fact, the Commission has rejected
29   leverage/financial risk adjustments that are similar to the one
30   proposed by PPL in this proceeding. *See, e.g., Pa. PUC v. Aqua*
31   *Pennsylvania, Inc*., Docket No. R-00072711, at 38-39 (Order
32   entered July 31, 2008). Moreover, in the context of our
33   determination, *supra*, of a reasonable return on equity for PPL of

1   10.28%, we conclude that there is no need to have an artificial

2   upwards adjustment to compensate for any perceived risk related to

3   PPL's market-to-book ratio. Accordingly, we shall deny the

4   Exceptions of PPL and adopt the ALJ's recommendation to reject

5   PPL's requested leverage adjustment. (Final Order in 2012 PPL

6   General Rate Case, Order No. 1206360, p. 91,

7

8

9   **B.   Review of Moul CAPM Analysis**

10   **Q.   PLEASE EXPLAIN HOW MR. MOUL APPLIES THE CAPM.**

11   A.   In his analysis, Mr. Moul combines forecasted and historical values to apply his

12   CAPM. Mr. Moul's decision on when and where to use forecasted and historical

13   values results in a higher CAPM for his utility client(s).

14

15   **Q   PLEASE EXPLAIN HOW MR. MOUL CHOOSES THE RISK-FREE RATE**

16   **FOR USE IN THE CAPM.**

17   A.   On p. 45 of his prefiled testimony, Mr. Moul states that, for the twelve months

18   ending October, 2018, the average yield on 30-year US Treasury bonds was 3.04%.

19   Mr. Moul then claims that interest rates are going higher in the future due to actions

20   of the Federal Reserve. Mr. Moul concludes by stating that a 3.75% risk-free rate

21   is appropriate for use in the CAPM. Contrary to Mr. Moul's claim of impending

22   rate increases by the Federal Reserve, on March 20, 2019, the Federal Reserve

23   indicated that it would not be increasing rates any further in the current calendar

24   year.

25

26   **Q.   DO YOU AGREE WITH MR. MOUL'S FORECASTED RISK-FREE**

27   **RATE?**

28   A.   No. Mr. Moul's past forecasts have missed the mark badly.

29

30   Peoples' last rate case was in 2013 and Mr. Moul was the Company's rate of

31   return witness in that case. As in this case, Mr. Moul used a forecasted risk-free

32   rate in his CAPM. In 2013 Mr. Moul stated:

1

2   The longer-term forecasts described previously show that the yields
3   on 30-year Treasury bonds will average 4.7% from 2014 through
4   2018 and 5.5% from 2019 to 2023. [18]

5

6   In the application of the CAPM, Mr. Moul reduced his forecast to 3.50%. Even

7   this reduction in the forecast was grossly overly optimistic as evidenced by the

8   chart below.

9

10   Chart 6:   Moul Forecasts Compared to Actual

Comparison of Moul 2013 Peoples Gas Case Forecast to Actual
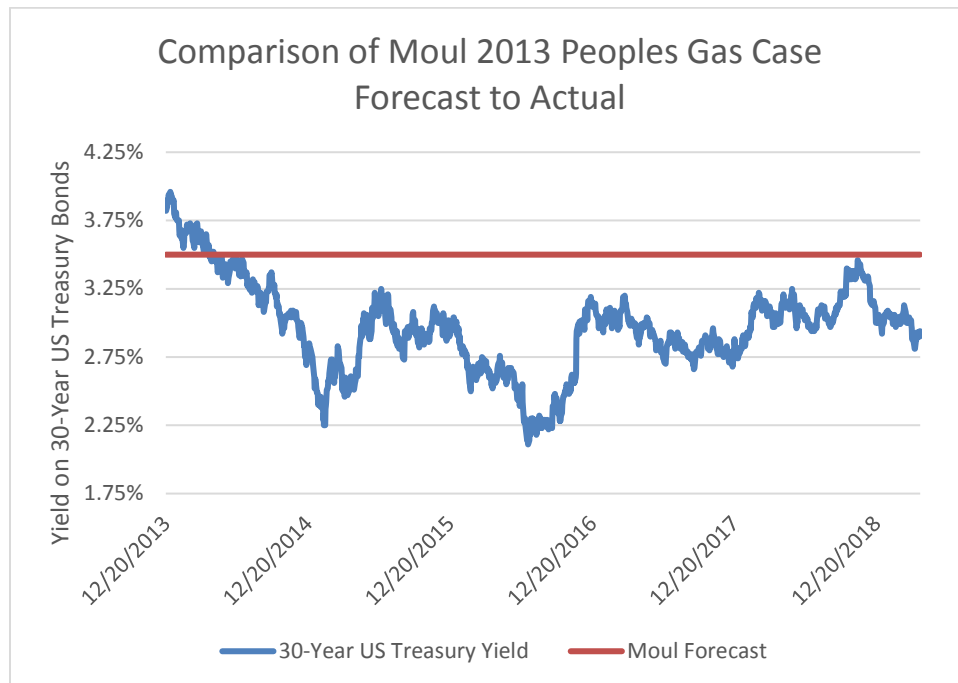
11

12

13   Mr. Moul's forecast from 2013 simply did not come close to reality. His current

14   forecast of 3.75% is, likewise, not credible.

15

16 **Q.**   **WHAT EXPECTED MARKET RETURN DOES MR. MOUL USE IN THE**

17   **CAPM ANALYSIS HE EMPLOYS IN THIS CASE?**

---

[18] Prefiled direct testimony of Paul Moul, Docket No. 2013-2355886, p. 41

1   A.   Mr. Moul states he uses an expected overall market return in the range of 11.96%

2   to 13.39%.[19] I urge the Commission to think about this forecast by Mr. Moul and

3   gather as much information from the markets as possible to determine if such a

4   range is logical. I contend that it is not.

5

6   Mr. Moul takes this range of 11.96% to 13.39% and calculates a risk premium for

7   use in the CAPM. He does so by subtracting his forecasted risk-free rate of 3.75%

8   from the 11.96% to 12.93% market forecast to arrive at a market premium for use

9   in the CAPM of 7.94% to 9.18%. Again, to put this premium in context, Mr. Moul

10   is telling this Commission that US Treasury bonds will, in the future, have a yield

11   of 3.75% and that the equity (stock market) will produce returns of 7.94% to 9.64%

12   greater than his forecasted US Treasury yield of 3.75%. Mr. Moul's forecasted US

13   Treasury yield and his forecasted risk premium are, both, exorbitantly high and

14   have no basis in reality.

15

16   Q.   **HOW DOES MR. MOUL'S EXPECTED MARKET RETURN COMPARE**

17   **TO FORECASTS FROM OTHER ANALYSTS?**

18   A.   As I indicated previously, well-known entities and people such as Black Rock

19   Investment, Jack Bogle from Vanguard, and JP Morgan are all forecasting market

20   returns from 0% to 7%. Mr. Moul's forecasted return of 11.96% to 13.39% is, to

21   say the least, unrealistic.

22

23   Q.   **HOW DOES MR. MOUL'S EXPECTED MARKET RETURN COMPARE**

24   **TO HISTORICAL RETURNS ON THE MARKET?**

25   A.   As noted in Table 8 above, the historical market return based on the period of 1926-

26   2013 was 10.10% on a geometric return and 12.10% on an arithmetic return basis.

27   Mr. Moul's forecast is far higher than even historical returns.

28

---

[19] Prefiled Direct Testimony (Moul), pp. 46-47.

1 Whether the comparison is to the forecasts used current day analysts or to historical

2 returns, Mr. Moul's forecasts are simply out of touch with reality and have no

3 underlying fundamental support or reasoning.

4

5 **Q.** **DO YOU AGREE WITH MR. MOUL'S CAPM SIZE ADJUSTMENT?**

6 A. No. As mentioned earlier, the CAPM is inferior to the DCF in determining the

7 market required return on equity. Without a direct and immediate link to current

8 stock market prices, the CAPM simply cannot reflect current investor sentiments

9 of the market.

10

11 To support his 1.02% adder, Mr. Moul cites a single article from *Public Utilities*

12 *Fortnightly* dating back 23 years ago to 1998 as a basis for adding this premium of

13 to his CAPM results. What Mr. Moul does not recognize is that investors already

14 know the size of UGI Corp. and similar utility holding companies. To the extent

15 investors feel these companies are a higher risk than larger entities, investors will

16 price that premium into the current stock price. Hence, Mr. Moul's 1.02% adder

17 simply double-counts any size premium, assuming one exists at all.

18

19

20 **C.** **Review of Moul Risk Premium Method**

21 **Q.** **MR. O'DONNELL, PLEASE EXPLAIN THE DIFFERENCE BETWEEN**

22 **THE RISK PREMIUM MODEL AND THE CAPM?**

23 A. Both the CAPM and the Risk Premium models are both essentially, risk premium

24 models. The primary difference is the CAPM is more company-specific due to its

25 use of beta to measure systematic risk. However, both models compare market

26 returns (either total market or utility markets) to bond yields.

27

28 **Q.** **PLEASE EXPLAIN MR. MOUL'S APPLICATION OF HIS RISK-**

29 **PREMIUM MODEL.**

1   A.   In his application of the Risk Premium model, Mr. Moul combines a forecasted

2   utility bond yield and his determination of an appropriate risk premium. To be

3   specific, Mr. Moul combines a forecasted A-rated bond yield of 5.0% to a risk

4   premium of 6.5% to derive a 11.5% risk premium result.

5

6   **Q.**   **DO YOU AGREE WITH MR. MOUL'S PRESENTATION OF THE RISK**

7   **PREMIUM MODEL?**

8   A.   No. First, I disagree with the use of forecasted bond yields. The best predictor of

9   future yields is the current yield curve. If the market feels interest rates are going

10   to increase in the future, it will bid down current bond prices so that yields

11   correspondingly increase. The reverse is also true in that, when the market feels

12   interest rates will soon fall, it will bid up bond prices thereby reducing bond yields.

13   However, Mr. Moul has ignored the most important predictor of future bond yields

14   and, instead, used his own estimate of future bond yields. As shown in Chart 6

15   above, Mr. Moul's forecasts of bond yields have simply been poor predictors of

16   actual results.

17

18   **D.**   **Other Observations on Moul Testimony**

19   **Q.**   **DO YOU AGREE WITH MR. MOUL'S 25 BASIS POINT ADJUSTMENT**

20   **FOR EXEMPLARY [20] MANAGEMENT PERFORMANCE?**

21   A.   No. I disagree with Mr. Moul's recommendation that Peoples Gas be rewarded a

22   25 basis point ROE adder for exemplary management performance.

23

24   I have reviewed the testimony of Mr. Morgan O'Brien, who cites several reasons,

25   such as customer service, pipeline replacement, and economic development as

26   reasons, in the Company's opinion, that merit a 25 basis point adder as requested

27   by Mr. Moul.[21] The Company has not shown that the endeavors have provided a

28   benefit to ratepayers well above the level of efficient and effective management and

---

[20] Prefiled Direct Testimony (Moul), p. 6
[21] id.

1   reasonable service which Peoples Gas is expected to provide. Ratepayers in

2   Pennsylvania are already paying Peoples Gas' management to perform their jobs to

3   the best of their abilities.

4

5 **Q.**   **HOW DO YOU RESPOND TO MR. MOUL'S DISCUSSION OF THE RISK**

6   **OF BYPASS HE CLAIMS FOR PEOPLES GAS?[22]**

7 A.   The threat of bypass has existed for natural gas distribution companies for decades.

8   This risk is already fully incorporated into investor expectations. In the current

9   Peoples Gas case, Mr. Moul cites the risk of bypass but then he fails to provide the

10   Commission with any comparison of the risk of bypass on the Peoples system in

11   relation to other gas utility systems. Hence, the Commission is left to wonder if the

12   risk of bypass is pertinent more or less for Peoples than for other gas utilities. The

13   Commission must make a determination based on evidence in the record. Mr. Moul

14   fails to provide such evidence in this testimony.

15

16   Furthermore, if the Company truly feels it is at-risk of losing industrial load via

17   bypass, it should not be seeking rate cases that will drive up rates and, potentially,

18   drive away its industrial load.

19

20 **Q.**   **PLEASE RESPOND TO MR. MOUL'S CONCERN REGARDING THE**

21   **TAX CUT AND JOBS ACT (TCJA).**

22 A.   The decrease in the corporate tax rate is, for current operations, just a flow-through

23   in rates. There is no issue associated with the fact that the Company is being charged

24   less and, therefore, so should the consumer.

25

26   The issue for regulators is in the treatment of excess deferred income taxes (EDIT)

27   which have developed as a result of the decrease in taxes.

28

---

[22] Prefiled Direct Testimony (Moul), p. 9.

1   **Q.**   **PLEASE EXPLAIN HOW EDIT HAS BEEN CREATED ON A**

2   **COMPANY'S BALANCE SHEET.**

3   A.   Excess deferred income taxes are created when utilities depreciate assets for tax

4   purposes at an accelerated rate as compared to the straight-line depreciation that is

5   typically used in ratemaking. Due to the accelerated depreciation, utilities pay less

6   taxes in the early years in the life of an asset. However, for ratemaking purposes,

7   utilities depreciate an asset on a straight-line basis (SL), thereby creating a situation

8   where consumers over-pay on actual taxes paid by Peoples Gas in the early years

9   in the life of an asset. This overpayment of taxes is referred to the excess deferred

10   income taxes (EDIT).

11

12   **Q.**   **DO YOU AGREE WITH MR. MOUL THAT THE TCJA REPRESENTS AN**

13   **INCREASE IN RISK FOR PEOPLES?**

14   A.   No. Normalization rules require that protected EDIT be flowed back to consumers

15   using the average rate assumption (ARAM) method. As a result, any uncertainty

16   or "risk" as it relates to this component of EDIT has already been addressed. The

17   only remaining part of EDIT for which a decision needs to be made is how to treat

18   unprotected EDIT, which is clearly consumer funds anyhow.

19

20   The "risk" as noted by Mr. Moul is no different than the risk faced by any other

21   utility in the country. However, due to the fact that normalization rules have

22   already addressed how to handle Peoples' protected EDIT, the risk as referred to

23   by Mr. Moul is a moot point.

24

25   In another part of his testimony, Mr. Moul states:

26

27   Economic growth has picked up with the implementation of the

28   new federal corporate income tax provisions. [23]

29

---

[23] Id, p. 33.

1   Mr. Moul notes that, economic circumstances and continued gas infrastructure
2   development spending merits a cost of equity in the high end of the range. I agree
3   with Mr. Moul that the economic growth has picked up. I do not agree that the
4   TCJA is the source of an increase in risk for which the Company must be
5   compensated. [24]

6

7   **IX. Summary**
8
9   **Q.   MR. O'DONNELL, PLEASE SUMMARIZE YOUR TESTIMONY.**
10 A.   Peoples Gas' requested rate increase in this case is excessive, unnecessary, and
11   burdensome on the ratepayers of Pennsylvania. My specific recommendations in
12   this case are as follows:

13

14   • the Company's capital structure for ratemaking purposes is too costly for
15   ratepayers;
16   • the capital structure used for ratemaking purposes should consist of 50.09%
17   common equity and 49.91% long-term debt;
18   • the embedded cost of debt should be set at the Company-recommended rate
19   of 4.24%;
20   • the Company's allowed return on equity should be set at 8.75%;
21   • the overall rate of return that Peoples Natural Gas should be allowed to earn
22   in this proceeding is 6.50%;
23   • the requested 25 basis point adder for "exemplary" performance is
24   unwarranted; and
25   • Mr. Moul's recommended rate of return is unreasonable, unnecessary, and
26   excessive.

27

28 **Q.   DOES THIS CONCLUDE YOUR TESTIMONY?**
29 A.   Yes.

---

[24] Prefiled Direct Testimony (Moul), p. 33
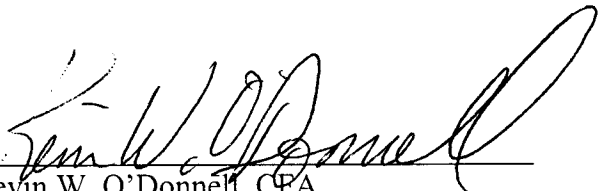
BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission :
      v.   : Docket No. R-2018-3006818
Peoples Natural Gas Company LLC :

VERIFICATION

I, Kevin W. O'Donnell, hereby state that the facts above set forth in my Direct Testimony

OCA Statement No. 2 are true and correct and that I expect to be able to prove the same at a hearing

held in this matter. I understand that the statements herein are made subject to the penalties of 18

Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

Signature: _____
Kevin W. O'Donnell, CFA
Nova Energy Consultants, Inc.
1350 SE Maynard Rd., Suite 101
Cary, NC 27511
kodonnell@novaenergyconsultants.com

DATED: April 29, 2019
*270932

Appendix A

Kevin W. O'Donnell, CFA
Nova Energy Consultants, Inc. (Nova)
1350-101 SE Maynard Rd.
Cary, NC
919-461-0270
919-461-0570 (fax)
kodonnell@novaenergyconsultants.com

Kevin W. O'Donnell, is the founder of Nova Energy Consultants, Inc. in Cary, NC. Mr. O'Donnell's academic credentials include a B.S. in Civil Engineering - Construction Option from North Carolina State University as well as a MBA in Finance from Florida State University. Mr. O'Donnell is also a Chartered Financial Analyst (CFA).

Mr. O'Donnell has over thirty-three years of experience working in the electric, natural gas, and water/sewer industries. He is very active in municipal power projects and has assisted numerous southeastern U.S. municipalities cut their wholesale cost of power by as much as 67%. On Dec. 12, 1998, *The Wilson Daily Times* made the following statement about O'Donnell.

> **Although we were skeptical of O'Donnell's efforts at first, he has shown that he can deliver on promises to cut electrical rates.**

Through 2018, Mr. O'Donnell has completed over 26 wholesale power projects for municipal and university-owned electric systems throughout North and South Carolina. In May of 1996 Mr. O'Donnell testified before the U.S. House of Representatives, Committee on Commerce, Subcommittee on Energy and Power regarding the restructuring of the electric utility industry.

Mr. O'Donnell has appeared as an expert witness in over 100 regulatory proceedings before the North Carolina Utilities Commission, the South Carolina Public Service Commission, the Virginia Corporation Commission, the Minnesota Public Service Commission, the New Jersey Board of Public Utilities, the Colorado Public Service Commission, Public Service Commission of the District of Columbia, the Maryland Public Service Commission, the Public Utility Commission of Texas, the Wisconsin Public Service Commission, the Oklahoma Public Utility Commission, and the Florida Public Service Commission. His area of expertise has included rate design, cost of service, rate of return, capital structure, creditworthiness issues, fuel adjustments, merger transactions, cogeneration studies, holding company applications, as well as numerous other accounting, financial, and utility rate-related issues.

Mr. O'Donnell is the author of the following two articles: "Aggregating Municipal Loads: The Future is Today" which was published in the Oct. 1, 1995 edition of *Public Utilities Fortnightly;* and "Worth the Wait, But Still at Risk" which was published in the May 1, 2000 edition of *Public Utilities Fortnightly.* Mr. O'Donnell is also the co-author of "Small Towns, Big Rate Cuts" which was published in the January, 1997 edition of *Energy Buyers Guide.* All of these articles discuss how rural electric systems can use the wholesale power markets to procure wholesale power supplies.

Regulatory Cases of Kevin W. O'Donnell, CFA
Nova Energy Consultants, Inc.

Year	Name of Applicant	State Jurisdiction	Docket No.	Client/ Employer	Case Issues
1985	Public Service Company of NC	NC	G-5, Sub 200	Public Staff of NCUC	Return on equity, capital structure
1985	Piedmont Natural Gas Company	NC	G-9, Sub 251	Public Staff of NCUC	Return on equity, capital structure
1986	General Telephone of the South	NC	P-19, Sub 207	Public Staff of NCUC	Return on equity, capital structure
1987	Public Service Company of NC	NC	G-5, Sub 207	Public Staff of NCUC	Return on equity, capital structure
1988	Piedmont Natural Gas Company	NC	G-9, Sub 278	Public Staff of NCUC	Return on equity, capital structure
1989	Public Service Company of NC	NC	G-5, Sub 246	Public Staff of NCUC	Return on equity, capital structure
1990	North Carolina Power	NC	E-22, Sub 314	Public Staff of NCUC	Return on equity, capital structure
1991	Duke Energy	NC	E-7, Sub 487	Public Staff of NCUC	Return on equity, capital structure
1992	North Carolina Natural Gas	NC	G-21, Sub 306	Public Staff of NCUC	Natural gas expansion fund
1992	North Carolina Natural Gas	NC	G-21, Sub 307	Public Staff of NCUC	Natural gas expansion fund
1995	Penn & Southern Gas Company	NC	G-3, Sub 186	Public Staff of NCUC	Return on equity, capital structure
1995	North Carolina Natural Gas	NC	G-21, Sub 334	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1995	Carolina Power & Light Company	NC	E-2, Sub 680	Carolina Utility Customers Assoc.	Fuel adjustment proceeding
1995	Duke Power	NC	E-7, Sub 559	Carolina Utility Customers Assoc.	Fuel adjustment proceeding
1996	Piedmont Natural Gas Company	NC	G-9, Sub 378	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1996	Piedmont Natural Gas Company	NC	G-9, Sub 382	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1996	Public Service Company of NC	NC	G-5, Sub 356	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1996	Cardinal Extension Company	NC	G-39, Sub 0	Carolina Utility Customers Assoc.	Capital structure, cost of capital
1997	Public Service Company of NC	NC	G-5, Sub 327	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1998	Public Service Company of NC	NC	G-5, Sub 386	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1998	Public Service Company of NC	NC	G-5, Sub 386	Carolina Utility Customers Assoc.	Natural gas transporation rates
1999	Public Service Company of NC/SCANA	NC	G-5, Sub 400	Carolina Utility Customers Assoc.	Merger case
1999	Public Service Company of NC/SCANA	NC	G-43	Carolina Utility Customers Assoc.	Merger Case
1999	Carolina Power & Light Company	NC	E-2, Sub 753	Carolina Utility Customers Assoc.	Holding company application
1999	Carolina Power & Light Company	NC	G-21, Sub 387	Carolina Utility Customers Assoc.	Holding company application
1999	Carolina Power & Light Company	NC	P-708, Sub 5	Carolina Utility Customers Assoc.	Holding company application
2000	Piedmont Natural Gas Company	NC	G-9, Sub 428	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
2000	NUI Corporation	NC	G-3, Sub 224	Carolina Utility Customers Assoc.	Holding company application
2000	NUI Corporation/Virginia Gas Compan	NC	G-3, Sub 232	Carolina Utility Customers Assoc.	Merger application
2001	Duke Power	NC	E-7, Sub 685	Carolina Utility Customers Assoc.	Emission allowances and environmental compliance costs
2001	NUI Corporation	NC	G-3, Sub 235	Carolina Utility Customers Assoc.	Tariff change request.
2001	Carolina Power & Light Company/Prog	NC	E-2, Sub 778	Carolina Utility Customers Assoc.	Asset transfer case
2001	Duke Power	NC	E-7, Sub 694	Carolina Utility Customers Assoc.	Restructuring application
2002	Piedmont Natural Gas Company	NC	G-9, Sub 461	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
2002	Cardinal Pipeline Company	NC	G-39, Sub 4	Carolina Utility Customers Assoc.	Cost of capital, capital structure
2002	South Carolina Public Service Commiss	SC	2002-63-G	South Carolina Energy Users Committee	Rate of return, accounting, rate design, cost of service
2003	Piedmont Natural Gas/North Carolina N	NC	G-9, Sub 470	Carolina Utility Customers Assoc.	Merger application
2003	Piedmont Natural Gas/North Carolina N	NC	G-9, Sub 430	Carolina Utility Customers Assoc.	Merger application
2003	Piedmont Natural Gas/North Carolina N	NC	E-2, Sub 825	Carolina Utility Customers Assoc.	Merger application
2003	Carolina Power & Light Company	NC	E-2, Sub 833	Carolina Utility Customers Assoc.	Fuel case
2004	South Carolina Electric & Gas	SC	2004-178-E	South Carolina Energy Users Committee	Return on equity, capital structure, rate design, cost of service
2005	Carolina Power & Light Company	NC	E-2, Sub 868	Carolina Utility Customers Assoc.	Fuel case

Regulatory Cases of Kevin W. O'Donnell, CFA
Nova Energy Consultants, Inc.

Year	Name of Applicant	State Jusrisdiction	Docket No.	Client/ Employer	Case Issues
2005	Piedmont Natural Gas Company	NC	G-9, Sub 499	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
2005	South Carolina Electric & Gas	SC	2005-2-E	South Carolina Energy Users Committee	Fuel application
2005	Carolina Power & Light Company	SC	2006-1-E	South Carolina Energy Users Committee	Fuel application
2006	IRP in North Carolina	NC	E-100, Sub 103	Carolina Utility Customers Assoc.	Submitted rebuttal testimony in investigation of IRP in NC.
2006	Piedmont Natural Gas Company	NC	G-9, Sub 519	Carolina Utility Customers Assoc.	Creditworthiness issue
2006	Public Service Company of NC	NC	G-5, Sub 481	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
2006	Duke Power	NC	E-7, 751	Carolina Utility Customers Assoc.	App to share net revenues from certain wholesale pwr trans
2006	South Carolina Electric & Gas	SC	2006-192-E	South Carolina Energy Users Committee	Fuel application
2007	Duke Power	NC	E-7, Sub 790	Carolina Utility Customers Assoc.	Application to construct generation
2007	South Carolina Electric & Gas	SC	2007-229-E	South Carolina Energy Users Committee	Rate of return, accounting, rate design, cost of service
2008	South Carolina Electric & Gas	SC	2008-196-E	South Carolina Energy Users Committee	Base load review act proceeding
2009	Western Carolina University	NC	E-35, Sub 37	Western Carolina University	Rate of return, accounting, rate design, cost of service
2009	Duke Power	NC	E-7, Sub 909	Carolina Utility Customers Assoc.	Cost of service, rate design, return on equity, capital structure
2009	South Carolina Electric & Gas	SC	2009-261-E	South Carolina Energy Users Committee	DSM/EE rate filing
2009	Duke Power	SC	2009-226-E	South Carolina Energy Users Committee	Return on equity, capital structure, rate design, cost of service
2009	Tampa Electric	FL	080317-EI	Florida Retail Federation	Return on equity, capital structure
2010	Duke Power	SC	2010-3-E	South Carolina Energy Users Committee	Fuel application - assisted in settlement
2010	South Carolina Electric & Gas	SC	2009-489-E	South Carolina Energy Users Committee	Return on equity, capital structure, rate design, cost of service
2010	Virginia Power	VA	PUE-2010-00006	Mead Westvaco	Rate design
2011	Duke Energy	SC	2011-20-E	South Carolina Energy Users Committee	Nuclear construction financing
2011	Northern States Power	MN	E002/GR-10-971	Xcel Large Industrials	Return on equity, capital structure
2011	Virginia Power	VA	PUE-2011-0027	Mead Westvaco	Capital structure, revenue requirement
2011	Duke Energy	NC	E-7, Sub 989	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2011	Duke Energy	SC	2011-271-E	South Carolina Energy Users Committee	Accounting, cost of service, rate design, ROE, capital structure
2011	Dominion Virginia Power	VA	PUE-2011-00073	Mead Westvaco	Rate design
2012	Town of Smithfield/Partners Equity Gr.	NC	ES-160, Sub 0	Partners Equity Group	Rate design, asset valuation
2012	Florida Power & Light	FL	120015-EI	Florida Office of Public Counsel	Capital structure
2012	South Carolina Electric & Gas	SC	2012-218-E	South Carolina Energy Users Committee	Accounting, cost of service, rate design, ROE, capital structure
2013	Progress Energy Carolinas	NC	E-2, Sub 1023	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2013	Duke Energy Carolinas	NC	E-7, Sub 1026	Carolina Utility Customers Assoc.	Rate design
2013	Jersey Central Power & Light	NJ	BPU ER12111052	Gerdau Ameristeel	Return on equity, capital structure
2013	Duke Energy Carolinas	SC	2013-59-E	South Carolina Energy Users Committee	Accounting, cost of service, rate design, ROE, capital structure
2013	Tampa Electric	FL	130040-EI	Florida Office of Public Counsel	Capital structure and financial integrity
2013	Piedmont Natural Gas	NC	G-9, Sub 631	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2014	Dominion Virginia Power	VA	PUE-2014-00033	Mead Westvaco	Recoverable fuel costs, hedging strategies
2014	Public Service Company of Colorado	CO	14AL-0660E	Colorado Healthcare Electric Coordinating Council	Return on equity, capital structure
2015	WEC Acquisition of Integrys	WI	9400-YO-100	Staff of Wisconsin Public Service Commission	Merger analysis
2015	Dominion Virginia Power	VA	PUE-2015-00027	Federal Executive Agencies	Return on equity
2015	South Carolina Electric & Gas	SC	2015-103-E	South Carolina Energy Users Committee	Return on equity
2015	Western Carolina University	NC	E-35, Sub 45	Western Carolina University	Accounting, cost of service, rate design, ROE, capital structure
2016	Sandpiper Energy	MD	9410	Maryland Office of People's Counsel	Return on equity, capital structure
2016	Washington Gas Light	DC	FC 1137	Washington, DC Office of People's Counsel	Return on equity, capital structure

Regulatory Cases of Kevin W. O'Donnell, CFA
Nova Energy Consultants, Inc.

Year	Name of Applicant	State Jusrisdiction	Docket No.	Client/ Employer	Case Issues
2016	Florida Power & Light	FL	160021-EI	Florida Office of Public Counsel	Capital Structure
2016	Jersey Central Power & Light	NJ	EM15060733	NJ Division of Rate Counsel	Asset valuation
2016	Rockland Electric Company	NJ	ER16050428	NJ Division of Rate Counsel	Rate design
2016	Dominon NC Power	NC	E-22, Sub 532	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2017	Potomac Electric Power	DC	FC 1139	Healthcare Council of the National Capitol Area (HCNCA)	ROE and capital structure
2017	Columbia Gas of Maryland	MD	FC 9447	Maryland Office of People's Counsel	ROE and capital structure
2017	Washington Gas Light	DC	FC 1142	Washington, DC Office of People's Counsel	Merger analysis
2017	Duke Energy Progress	NC	E-2, Sub 1142	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2018	Public Service Electric & Gas	NJ	GR17070776	NJ Division of Rate Counsel	ROE and capital structure
2018	Duke Energy Carolinas	NC	E-7, Sub 1146	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2018	Elkton Gas/SJI	MD	FC 9475	Maryland Office of People's Counsel	Merger analysis
2018	Entergy Texas	TX	PUC 48371	Public Utilities Commission of Texas	ROE
2018	Duke Energy Carolinas	SC	2018-3-E	South Carolina Energy Users Committee	Fuel case
2018	Elkton Gas Company	MD	FC 9488	Maryland Office of People's Counsel	Accounting, ROE, capital structure
2018	Baltimore Gas & Electric	MD	FC9484	Maryland Office of People's Counsel	ROE, capital structure
2018	South Carolina Electric & Gas	SC	2017-370-E	South Carolina Energy Users Committee	Creditworthiness issue
2018	Jersey Central Power & Light	NJ	EO18070728	NJ Division of Rate Counsel	ROE and capital structure
2019	Duke Energy Carolinas	SC	2018-319-E	South Carolina Energy Users Committee	Accounting, rate design
2019	Duke Energy Progress	SC	2018-318-E	South Carolina Energy Users Committee	Accounting, rate design
2019	Public Service Electric and Gas	NJ	EO18060629	NJ Division of Rate Counsel	ROE and capital structure
2019	Potomac Electric Power	MD	FC 9602	Maryland Office of People's Counsel	ROE, capital structure
2019	Oklaahoma Gas and Electric	OK	PUD 201800140	Sierra Club	Creditworthiness issue

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No. R-2018-3006818
	:	
Peoples Natural Gas Company, LLC	:	

EXHIBITS ACCOMPANYING
Direct Testimony of
Kevin W. O'Donnell

On Behalf of:
Office of Consumer Advocate

Pennsylvania Public Utility Commission
Docket No. 2018-3006818
DCF Results

Company	13 Wk. Avg. Dividend Yield	4 Wk. Avg. Dividend Yield	Current Dividend Yield	Value Line 10 Year EPS	10 Year DPS	10 Year BPS	5 Year EPS	5 Year DPS	5 Year BPS	Forecasted EPS	Forecasted DPS	Forecasted BPS	Plowback Growth Rate	CFRA Forecasted EPS	Schwab Forecasted EPS
Atmos	2.2%	2.1%	2.1%	6.5%	3.5%	5.5%	10.0%	5.5%	7.0%	7.5%	7.0%	7.0%	4.8%	6.0%	6.4%
Chesapeake	1.7%	1.7%	1.7%	8.5%	4.5%	9.5%	7.5%	5.5%	10.0%	9.0%	9.0%	9.0%	5.6%	NA	7.2%
NiSource	3.0%	2.9%	2.8%	-5.0%	-2.5%	-4.0%	-10.5%	-5.0%	-7.0%	15.0%	7.5%	5.0%	3.1%	6.0%	5.3%
New Jersey Resources	2.5%	2.4%	2.3%	7.0%	7.5%	7.0%	5.5%	6.5%	8.0%	2.5%	4.0%	6.5%	6.3%	6.0%	6.0%
NWNG	3.1%	3.0%	2.9%	-11.5%	3.0%	2.5%	-22.0%	1.5%	1.0%	25.5%	2.5%	0.5%	2.5%	4.0%	6.0%
OneGas	2.4%	2.3%	2.3%	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.8%	6.0%	5.0%
South Jersey	4.0%	3.9%	3.7%	2.5%	8.5%	7.5%	-1.5%	7.0%	8.0%	9.5%	4.0%	4.0%	3.0%	9.0%	5.9%
Southwest Gas	2.7%	2.6%	2.6%	6.5%	8.0%	5.5%	5.0%	11.0%	5.5%	8.5%	5.5%	6.0%	4.3%	6.0%	6.3%
Spire	3.1%	3.0%	2.9%	4.0%	4.0%	7.5%	7.5%	5.0%	8.0%	5.5%	4.0%	2.5%	4.0%	NA	NA
UGI	1.9%	1.9%	1.8%	6.5%	7.5%	9.0%	9.0%	7.0%	7.0%	7.0%	2.5%	9.5%	8.0%	8.0%	8.0%
Average	**2.6%**	**2.6%**	**2.5%**	**2.8%**	**4.9%**	**5.6%**	**1.2%**	**4.9%**	**5.3%**	**10.0%**	**5.1%**	**5.6%**	**4.5%**	**6.4%**	**6.2%**

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission   :

                                            :

              v.   :   Docket No. R-2018-3006818

                                            :

Peoples Natural Gas Company, LLC   :

EXHIBIT KWO-2

Peoples Natural Gas Company
Pennsylvania Public Utility Commission
Docket No. 2018-3006818

Company	% Retained to Common Equity				
	2017	2018E	2019E	2022E/2024E	Average
Atmos	4.9%	4.8%	4.5%	5.0%	**4.8%**
Chesapeake	4.9%	6.0%	5.5%	6.0%	**5.6%**
NiSource	NMF	3.2%	3.2%	3.0%	**3.1%**
New Jersey Nat Gas	5.0%	10.3%	5.0%	5.0%	**6.3%**
NWNG	NMF	1.0%	2.0%	4.5%	**2.5%**
OneGas	3.7%	3.5%	3.5%	4.5%	**3.8%**
South Jersey	0.9%	3.0%	3.0%	5.0%	**3.0%**
Southwest Gas	4.5%	4.0%	4.0%	4.5%	**4.3%**
Spire	3.3%	4.7%	3.0%	5.0%	**4.0%**
UGI	7.5%	8.4%	8.0%	8.0%	**8.0%**
Average					**4.5%**

Source: The Value Line Investment Survey, March 1, 2019

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission　　　:

　　　　　　　　　　　　　　　　　　　　:

　　　　　　v.　　　　　　　　　:　　　　Docket No. R-2018-3006818

　　　　　　　　　　　　　　　　　　　　:

Peoples Natural Gas Company, LLC　　　:

EXHIBIT KWO-3

Peoples Natural Gas Company
Pennsylvania Public Utility Commission
Docket No. 2018-3006818

Company	% Return on Common Equity			
	2017	2018E	2019E	2022E/2024E
Atmos	9.8%	9.3%	9.0%	10.0%
Chesapeake	9.0%	10.0%	10.0%	10.0%
NiSource	3.0%	8.0%	8.0%	9.0%
New Jersey Nat Gas	12.1%	17.1%	11.5%	11.0%
NWNG	NMF	8.5%	9.0%	12.0%
OneGas	8.2%	8.5%	8.5%	10.0%
South Jersey	8.2%	10.5%	10.0%	12.0%
Southwest Gas	9.6%	9.0%	8.5%	9.5%
Spire	8.1%	0.5%	8.0%	10.5%
UGI	12.9%	13.2%	12.5%	11.5%
Average	9.0%	9.5%	9.5%	10.6%

Source: The Value Line Investment Survey, March 1, 2019

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission   :

    :

v.   :   Docket No. R-2018-3006818

    :

Peoples Natural Gas Company, LLC   :

EXHIBIT KWO-4

CAPM Results

Comparable Group

	Risk-Free Rate	Beta	Equity Risk Premium	Equity Cost Rate
Treasury - Maximum	3.46%	0.69	4.0%	6.2%
Treasury - Average	3.10%	0.69	4.0%	5.8%
Treasury - Minimum	2.81%	0.69	4.0%	5.6%

	Risk-Free Rate	Beta	Equity Risk Premium	Equity Cost Rate
Treasury - Maximum	3.46%	0.69	6.0%	7.6%
Treasury - Average	3.10%	0.69	6.0%	7.2%
Treasury - Minimum	2.81%	0.69	6.0%	6.9%