CLARK HILL

Clark Hill PLC
151 S. Old Woodward
Suite 200
Birmingham, MI 48009
T 248.642.9692
F 248.642.2174

clarkhill.com

Robert A. W. Strong
T 248.988.5861
F 248.988.2323
Email: rstrong@clarkhill.com

December 4, 2015

VIA ELECTRONIC CASE FILING

Ms. Mary Jo Kunkle
Executive Secretary
Michigan Public Service Commission
6545 Mercantile Way
Lansing, Michigan 48909-7721

Re: ***MPSC Case No. U-17882: Consumers Energy Company's Gas General Rate Case***

Dear Ms. Kunkle:

Enclosed for filing are the ***Direct Testimony and Exhibits of Nicholas Phillips, Jr. and the Direct Testimony and Exhibits of Christopher C. Walters***, both on behalf of ABATE, as well as a ***Proof of Service*** in the above-referenced case.

Very truly yours,

CLARK HILL PLC

Robert A. W. Strong

Digitally signed by: Robert A. W. Strong
DN: CN = Robert A. W. Strong C = US O = Clark Hill PLC
Date: 2015.12.04 15:56:14 -05'00'

Robert A. W. Strong

RAWS:lllm

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

*** * * * ***

In the matter of the application of CONSUMERS ENERGY COMPANY for authority to increase its rates for the distribution of natural gas and for other relief.	)))))	Case No. U-17882 ALJ Mark D. Eyster

PROOF OF SERVICE

STATE OF MICHIGAN)
)
COUNTY OF OAKLAND)

Robert A. W. Strong, being first duly sworn, deposes and says that on December 4, 2015, he did cause to be served the **Direct Testimony and Exhibits of Nicholas Phillips, Jr.** and the **Direct Testimony and Exhibits of Christopher C. Walters**, both on behalf of ABATE, as well as this **Proof of Service**, in the above docket, via electronic mail, to the persons identified on the attached service list.

Robert A. W. Strong

Digitally signed by: Robert A. W. Strong
DN: CN = Robert A. W. Strong C = US O = Clark Hill PLC
Date: 2015.12.04 15:56:40 -05'00'

Subscribed and sworn to before me this 4th day of December, 2015.

Linda L. McCauley, Notary Public
Oakland County, MI
My Commission expires: October 18, 2019
Acting in Oakland County

Linda McCauley

Digitally signed by: Linda McCauley
DN: CN = Linda McCauley C = US O = Clark Hill PLC
Date: 2015.12.04 15:57:07 -05'00'

SERVICE LIST
MPSC Case No. U-17882

Administrative Law Judge
Mark D. Eyster
eysterm@michigan.gov

Counsel for MPSC Staff
Lauren D. Donofrio
Bryan A. Brandenurg
Meredith R. Beidler
donofriol@michigan.gov
brandenburhb@michigan.gov
beidlerm@michigan.gov

Counsel for Consumers Energy Company
H. Richard Chambers
Bret A. Totoraitis
Robert W. Beach
Kelly M. Hall
James D. W. Roush
Anne M. Uitvlugt
Gary A. Gensch, Jr.
Consumers Energy Company
One Energy Plaza
Jackson, MI 49201
Rick.chambers@cmsenergy.com
Bret.totoraitis@cmsenergy.com
Robert.beach@cmsenergy.com
Kelly.hall@cmsenergy.com
James.roush@cmsenergy.com
Anne.uitvlugt@cmsenergy.com
Gary.genschjr@cmsenergy.com
mpscfilings@cmsenergy.com

Counsel for Attorney General Bill Schuette
John Janiszewski
Janiszewskij2@michigan.gov

Consultant for ABATE:
Nicholas Phillips
Brubaker & Associates, Inc.
P.O. Box 412000
St. Louis, MO 63141-2000
nphillips@consultbai.com

Co-Counsel for ABATE:
Leland R. Rosier
lrrosier@clarkhill.com

Counsel for Midland Cogeneration Venture Limited Partnership
David R. Whitfield
dwhitfield@wnj.com

Counsel for Retail Energy Supply Association
Jennifer U. Heston
Michael S. Ashton
jheston@fraserlawfirm.com
mashton@fraserlawfirm.com

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of CONSUMERS ENERGY COMPANY for authority to increase its rates for the distribution of natural gas and for other relief	)	**Case No. U-17882**

Direct Testimony and Exhibits of

Nicholas Phillips, Jr.

On behalf of

Association of Businesses Advocating Tariff Equity ("ABATE")

December 4, 2015

BRUBAKER & ASSOCIATES, INC.

Project 10127

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of CONSUMERS ENERGY COMPANY for authority to increase its rates for the distribution of natural gas and for other relief	)))))))	**Case No. U-17882**

Direct Testimony of Nicholas Phillips, Jr.

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Nicholas Phillips, Jr. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q WHAT IS YOUR OCCUPATION?

A I am a consultant in the field of public utility regulation and a managing principal with Brubaker & Associates, Inc., a firm specializing in energy, economic and regulatory consulting. Our firm and its predecessor firms have consulted in this field since 1937 and have participated in more than 1,000 proceedings in 40 states and several Canadian provinces. We have experience with more than 350 utilities, including many electric utilities, gas pipelines, and local distribution companies ("LDCs").

Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A This information is included in Appendix A to my testimony.

Q ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A I am testifying on behalf of the Association of Businesses Advocating Tariff Equity ("ABATE"), a group of businesses including many of Michigan's largest employers and energy users.

Q HAVE YOU PRESENTED TESTIMONY IN PRIOR CONSUMERS ENERGY COMPANY ("CONSUMERS" OR "COMPANY") PROCEEDINGS BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION ("COMMISSION" OR "MPSC")?

A Yes. I have been involved in many prior Consumers proceedings before this Commission. I presented testimony in Case No. U-13000, which developed and established Rate XLT. I also presented testimony in Case No. U-13730, Case No. U-14547, Case No. U-15190, Case No. U-15506, Case No. U-15986, Case No. U-16418, Case No. U-16855, and reviewed Case No. U-17197 before it was withdrawn. I was recently involved in Case No. U-17643 which resulted in the currently approved rates.

Q WHAT IS THE SUBJECT MATTER OF YOUR TESTIMONY?

A My testimony is directed toward Consumers' natural gas cost of service study and the allocation of any allowed gas distribution rate increase. I have examined the testimony and exhibits presented by Consumers in this (and previous) proceedings with respect to cost of service and revenue allocation, and I will comment on the propriety of these proposals, and make certain comments and recommendations. Another topic I address is Consumers' proposed increase to the Lost and Unaccounted for ("LAUF") Company Use gas factor, which is used for the "Gas-in-Kind" ("GIK") factor applied to transportation volumes. Finally, I urge the

Commission to reject Consumers' proposed Investment Recovery Mechanism ("IRM").

Q DOES YOUR TESTIMONY ADDRESS THE NECESSITY OF A RATE INCREASE FOR CONSUMERS?

A My testimony addresses only the relative need for rate adjustments among the various customer classes, within the context of a given total dollar amount of increase. In order to make my presentation consistent with the revenue levels requested by Consumers, I have used its numbers for revenues under its proposed rates. Use of these numbers should not be interpreted as an endorsement of them for purposes of determining the total dollar amount of any rate increase authorized for Consumers.

Summary of Conclusions and Recommendations

Q PLEASE BRIEFLY SUMMARIZE YOUR CONCLUSIONS AND RECOMMENDATIONS IN THIS PROCEEDING.

A The summary of my conclusions and recommendations is listed below:

1. Consumers presents two versions of its test year cost of service study. Version 2 corrects some of the over-allocations to large transportation customers and is a step toward correcting the cost of service allocations to transportation customers.

2. Consumers has appropriately allocated storage costs based on 100% storage utilization in its Version 2 cost of service study.

3. Consumers' Version 2 cost of service study uses the peak and average method to allocate demand related costs. The peak and average method (which can more accurately be called the average and average method since the peak is yet another average) is at odds with system design and cost causation. By way of example, if the system was designed to meet average load, Consumers could not deliver gas on cold days.

4. I recommend that a peak day demand allocation method be used in place of the current peak and average method. In that process, the practice of using peak

month average usage divided by the number of days in the month should be corrected by developing a design day peak demand allocator. Design day peak demand by class, best reflects the actual design of the system.

5. Consumers' neighbor to the south, Northern Indiana Public Service Company ("NIPSCO") correctly performs its gas cost of service study based on a peak allocation method. The resulting transportation rates for large customers (200,000 Mcf/month) are approximately 11.7¢ per Mcf compared to Consumers current rate of approximately 53.1¢ per Mcf under current rates and 58.9¢ per Mcf under proposed rates.

6. Correcting Consumers' cost of service shows that current transportation rates should be reduced by 5.5% in this proceeding. As a result, I recommend no increase in Consumers' current transportation rates.

7. Consumers' request to further increase the LAUF and Company use percentage should be rejected. The existing factor more than adequately reflects the appropriate LAUF and Company use level.

8. The Commission should instruct Consumers to begin taking measures to lower its LAUF and Company use percentage in future rate proceedings.

9. Consumers' proposed IRM should be rejected.

Cost of Service and Rate Design Principles

Q COULD YOU PLEASE EXPLAIN THE RATEMAKING PROCESS AND THE DESIGN OF RATES?

A The ratemaking process has three steps. First, we must determine the utility's total revenue requirement and whether an increase or decrease in revenues is necessary. Second, we must determine how any increase or decrease in revenues is to be distributed among the major customer classes. A determination of how many dollars of revenue should be produced by each major class is essential for obtaining the appropriate level of rates. Finally, individual tariffs must be designed to produce the required amount of revenues for each class of service and to reflect the cost of serving customers within the class.

The guiding principle at each step should be cost of service. In the first step – determining revenue requirements – it is universally agreed that the utility is entitled to an increase only to the extent that its actual cost of service has increased. If current rate levels exceed the utility's revenue requirement, a rate reduction is required. In short, overall rate revenues should equal actual cost of service. The same principle should apply in the next two steps. Each major customer class should, to the extent practicable, produce revenues equal to the cost of serving that particular class, no more and no less. This may require a rate increase for some classes and a rate decrease for other classes. The standard tool for determining this is a class cost of service study which shows the rates of return for each major class of service. Rate levels should be modified so that each major class of service provides approximately the same rate of return. Finally, in designing individual tariffs, the goal should also be to relate the rate design of each major class to the cost of service so that each customer's rate tracks, to the extent practicable, the utility's cost of providing service to that customer.

Q WHY IS IT IMPORTANT TO ADHERE TO BASIC COST OF SERVICE PRINCIPLES IN THE RATEMAKING PROCESS?

A The basic reasons for using cost of service as the primary factor in the ratemaking process are equity and stability.

Q HOW IS THE EQUITY PRINCIPLE ACHIEVED BY BASING RATES ON COSTS?

A When rates are based on cost, each customer (to the extent practicable) pays what it costs the utility to serve him, no more and no less. If rates are not based on cost of

service, then some customers contribute disproportionately to the utility's revenues by subsidizing service provided to other customers. This is inherently inequitable.

Q PLEASE DISCUSS THE STABILITY CONSIDERATION.

A When rates are closely tied to costs, the earnings impact on the utility associated with changes in customer usage patterns will be minimized as a result of rates being designed in the first instance to track changes in the level of costs. Thus, cost-based rates provide an important enhancement to a utility's earnings stability, reducing its need to file for future rate increases.

From the perspective of the customer, cost-based rates provide a more reliable means of determining future levels of costs. If rates are based on factors other than costs, it becomes much more difficult for customers to translate expected utility-wide cost changes (*i.e.*, expected increases in overall revenue requirements) into changes in the rates charged to particular customer classes (and to customers within the class). From the customer's perspective, this situation reduces the attractiveness of expansion, as well as of continued operations, because of the lessened ability to plan.

Q WHEN YOU SAY "COST," TO WHAT TYPE OF COST ARE YOU REFERRING?

A I am referring to the utility's "embedded" or actual accounting costs of rendering service; that is, those costs which are used by the Commission in establishing the utility's overall revenue requirement.

Q WOULD YOU PLEASE COMMENT ON THE BASIC PURPOSE OF A COST OF SERVICE STUDY?

A After determining the overall cost of service or revenue requirement, a cost of service study is used to allocate the cost of service among customer classes. A cost of service study shows how each major customer class contributes to the total system cost. For example, when a major class produces the same rate of return as the total system, it is returning to the utility revenues just sufficient to cover the costs incurred in serving it (including a reasonable authorized return on investment). If a major class produces a below-average rate of return, it may be concluded that the revenues are insufficient to cover all relevant costs. On the other hand, if a major class produces an above-average rate of return, it is paying revenues sufficient to cover the cost attributable to it, and in addition, is paying part of the cost attributable to other major classes which produce a below-average rate of return. The class cost of service study is important because it shows the class revenue requirement, as well as the rate of return under current and any proposed rates.

Q WOULD YOU PLEASE COMMENT ON THE PROPER FUNDAMENTALS OF A COST OF SERVICE STUDY?

A Yes. Cost of service is a basic and fundamental ingredient to proper ratemaking. In all class cost of service studies, certain fundamental concepts should be recognized. Of primary importance among these concepts is the functionalization, classification, and allocation of costs. Functionalization is the determination and arrangement of costs according to major functions, such as transmission, distribution and storage. Classification involves identifying the nature of these costs as to whether they vary with the quantity of gas consumed, the demand placed upon the system or the

number of customers being served. Fixed costs are those costs, which tend to remain constant over the short run irrespective of changes in gas deliveries and are generally considered to be demand-related. Fixed costs include those costs which are a function of the size of the investment in utility facilities, and those costs necessary to keep the facilities "on-line." Variable costs, on the other hand, are basically those costs which tend to vary with throughput and are generally considered to be commodity-related.

Customer-related costs are those which are closely related to the number of customers served, rather than the quantity of gas consumed or the demands placed upon the system. An understanding of these concepts is essential to the proper development of a cost of service study, as well as appropriate rate design within the customer class.

Consumers' Gas Cost of Service Study

Q HAVE YOU REVIEWED THE GAS COST OF SERVICE STUDIES PERFORMED BY CONSUMERS IN THIS PROCEEDING?

A Yes. Consumers witness Josnelly C. Aponte submitted two 2016 test year gas cost of service studies and a historic cost study in this proceeding. I will focus on the test year studies used for revenue allocation of any increase that might be granted in this case.

Consumers presents two versions of its 2016 test year study. Version 1 reflects the historic allocations while Version 2 has three enhancements to the historic approach which corrects some of the over-allocations of cost to the transportation class. These enhancements include a change to the allocation factor used for

uncollectible expense, a weighting of 100% storage capacity to allocate storage cost, and the use of design peak day to develop the average and peak allocation factors.

Q DO YOU AGREE WITH THE ALLOCATION METHODS UTILIZED BY CONSUMERS IN ITS 2016 TEST YEAR GAS COST OF SERVICE STUDIES?

A While Version 2 is an improvement over Version 1 and it appears that Consumers is taking certain small steps to lessen the over-allocation of cost to the transportation class, significant over-allocations to transportation class continue. Consumers and the Commission should take this opportunity to stop the over-allocation of cost to the large transportation customers. Specifically, I take issue with the use of the average and peak method to allocate fixed costs of the gas delivery system. Elimination of the average and peak method would make Michigan more attractive to energy-intensive industries through more competitive gas transportation rates.

Q FOR ITS VERSION 2 CLASS COST OF SERVICE STUDY, PLEASE EXPLAIN HOW CONSUMERS HAS MODIFIED THE ALLOCATION OF THE COST OF ITS GAS STORAGE SYSTEM?

A Consumers appropriately proposes to allocate storage related costs based on 100% storage utilization.

Q HOW DOES CONSUMERS USE ITS GAS STORAGE SYSTEM AND WHO PREDOMINATELY BENEFITS FROM ITS USE?

A According to a statement from Consumers' website, its gas storage system is used to economically purchase and store gas during warm months, for eventual use in the winter heating season.

> "Consumers Energy buys gas during warmer months when it costs less and stores it in 15 underground storage fields located throughout Michigan. As temperatures cool down and furnaces heat up, the gas is pumped out to city gates for use by our customers. Storage fields hold about 45 percent of the supply needed to get our customers through a typical winter."

Since Consumers' transportation service rate does not provide the ability for transportation customers to purchase and store gas during the summer months for consumption in the winter, this means that Consumers' sales customers are the primary beneficiaries of the storage system.

Q CAN YOU PLEASE EXPLAIN WHY THE SALES CUSTOMERS ARE THE PRIMARY BENEFICIARIES OF CONSUMERS' STORAGE SYSTEM?

A Yes. Historically, gas commodity prices tend to be cheaper during the shoulder and summer months when demand for natural gas is low and higher in the winter months when natural gas demand is at its peak. In order to take advantage of this scenario, Consumers, on behalf of its sales customers, purchases gas commodity in the shoulder and summer months and puts this gas into storage for consumption during the winter months. This type of strategy tends to result in a lower gas cost recovery ("GCR") factor for Consumers' sales customers.

Q DO YOU HAVE ANY INFORMATION THAT SHOWS HOW CONSUMERS ACTUALLY OPERATES ITS STORAGE SYSTEM?

A Table 1 below identifies the total gas delivered and withdrawn from Consumers' storage system in 2014. Between the shoulder and summer months of April through October, Consumers purchased and injected a significant amount of gas into storage on behalf of its sales customers. Conversely, during the winter months of November

through March, Consumers used the gas purchased in the shoulder and summer months primarily to service the gas consumption requirements of its sales customers.

TABLE 1

Total Gas Delivered & Withdrawn from Storage in 2014 (Mcf)

Month	Gas Delivered To Storage	Gas Withdrawn From Storage
January	39,861	36,791,724
February	30,690	24,707,339
March	1,215,957	14,021,422
April	11,846,676	1,190,898
May	20,781,698	47,809
June	23,041,722	19,118
July	21,801,528	22,663
August	22,009,945	44,606
September	15,618,896	30,099
October	5,466,151	1,809,314
November	179,423	20,427,067
December	135,735	17,372,625
TOTAL	122,168,282	116,484,684

Source: MPSC Form P-522, Rate Year 2014, Page 512

Q HOW DOES CONSUMERS PROPOSE TO ALLOCATE STORAGE RELATED COSTS TO THE MAJOR CUSTOMER CLASSES?

A Consumers develops a storage allocator based on each individual class's storage utilization estimate. Consumers assigns a 100% weighting to storage utilization. Consumers states that it is appropriate to allocate all storage cost on the storage utilization factor because that allocation method reflects the actual use of the system.

Q DO TRANSPORTATION CUSTOMERS DERIVE ANY BENEFIT FROM CONSUMERS' STORAGE FACILITIES?

A Possibly, but its benefit would only be limited to the handling of customer imbalances. In order to understand why this could be the case, it is necessary to understand how transportation customer imbalances on the system are handled.

Q WHAT ARE THE MECHANICS OF HANDLING AN IMBALANCE ON A UTILITY SYSTEM?

A The most basic method by which imbalances may be accommodated is by line pack. This term refers to the ability of the system of mains to act as a buffer by holding a little more or a little less gas from day-to-day. Of course, this ability will be dependent upon the system. On some systems, line pack may be able to accommodate a substantial portion of the system's daily imbalances.

Another way that imbalances can be accommodated is by some form of accounting – either borrowing or lending. Suppose, for example, that the utility nominates 100,000 Mcf on a given day and the transporters, as a group, nominate 50,000 Mcf on the same day. If the pipeline needs to deliver 160,000 Mcf on that day (in order to meet the LDC's system requirements), we can say that the pipeline has "loaned" the system 10,000 Mcf. If, on the following day, nominations are the same but the pipeline only delivers 140,000, it will have been repaid. The physical integrity of the system has not been compromised and no real costs have been incurred. Physically, the system was in balance. The potential difference was accounted for only on the books of the pipeline. Of course, if there is a difference between the price of gas when the "loan" was made and the time when it was repaid, it is possible that additional costs were involved. The point I wish to emphasize is that the shorter the

time between when the imbalance was incurred and the time when it was made up, the less likely it is for any costs to be incurred.

Another means by which imbalances are accommodated is diversity. Diversity refers to the phenomenon that when some transporters have positive imbalances, others will have negative imbalances. Thus, although each individual end-user may be out of balance, the system will be more nearly in balance. One consequence of this is that even if a system can physically accommodate only a 10% imbalance using line pack, the tolerance level for each individual imbalance can be far greater. Obviously, the more transporters, the more diversity comes into play.

Yet another means of controlling imbalances on an LDC system is by the use of storage. Excess gas is injected into storage and deficiencies are made up by withdrawing gas from storage. Obviously, this method is only open to an LDC having a storage option available.

Q CAN TRANSPORTATION CUSTOMERS SECURE STORAGE SERVICE, WHICH IS SIMILAR TO SERVICE PROVIDED TO SALES CUSTOMERS?

A In prior years, transportation customers could purchase storage from Consumers under Rate CS – Contract Storage Service at an additional cost. However, the Rate CS tariff specifically states that this service is available to transportation customers **only** if it is not needed to serve Consumers' sales customers. The tariff states in this respect that this service is available "provided the Company has determined that it has sufficient available and uncommitted storage capacity to perform the service requested." Now, Rate CS specifically states that "This rate is not open to new business." It is clear that storage function is only used to provide service to sales customers.

Q BASED ON THIS INFORMATION, HOW SHOULD STORAGE COSTS BE ALLOCATED IN THIS PROCEEDING?

A They should be allocated entirely on the storage utilization factor as proposed by the Company. This factor identifies each individual customer class's projected utilization of Consumers' storage system based on actual historic utilization of the storage system.

Q DO YOU HAVE ANY OTHER COMMENTS WITH REGARD TO CONSUMERS' PROPOSED COST OF SERVICE STUDY AND ALLOCATION FACTORS?

A Yes. In the development of its "Peak and Average" allocation factor, which is used to allocate fixed delivery related costs, Consumers uses peak month throughput divided by the days in the month as opposed to design peak day usage. This approach dilutes the peak day demand concept by averaging all days of the peak month. Therefore, the peak (*i.e.*, demand) portion of Consumers' "Peak and Average" allocator is based on average usage for the entire peak month, whereas, the average portion of Consumers' "Peak and Average" allocator is based on total annual throughput.

Q HOW DOES CONSUMERS DETERMINE WHAT PORTION OF FIXED RELATED COSTS SHOULD BE ALLOCATED ON THE PEAK BASIS (PEAK MONTHLY THROUGHPUT) AND WHAT PORTION ON THE AVERAGE BASIS (TOTAL ANNUAL THROUGHPUT)?

A Consumers develops an average system load factor based on projected annual system throughput and a system design peak day requirement. The calculated average system load factor represents the amount that is allocated on the average basis (total annual throughput) while the formula, one minus the average system load factor, is used to determine the amount to allocate on the peak basis (peak monthly throughput).

Q WAS THE DEVELOPMENT OF THE AVERAGE SYSTEM LOAD FACTOR DISCUSSED IN PREVIOUS CONSUMERS' PROCEEDINGS?

A Yes. Staff has argued for the use of an historical peak day demand approach as opposed to the design peak day demand approach recommended by Consumers.

Q IN YOUR OPINION IS THE "PEAK AND AVERAGE" APPROACH APPROPRIATE TO ALLOCATE FIXED RELATED DELIVERY SYSTEM COSTS?

A No. The design peak day demand approach is most reflective of cost. As previously stated by Mr. Yehl in direct testimony filed on behalf of Consumers Energy, the design peak day "is a very significant component in the planning activities for system design and operations..." (Thomas Yehl direct testimony, U-16418, Page 8). This is very important for system operation and expansion purposes. Further, the design peak day demand approach incorporates weather normalization, whereas the historical peak day demand approach is based on historical weather conditions that

may not be reflective of future usage. Certainly, the peaks that occurred during the extreme weather conditions associated with the polar vortex during the winter of 2014 cannot be considered normal or appropriate for ratemaking.

I further recommend that the design day demand be utilized to allocate fixed delivery costs. Currently, Consumers uses the peak month sales divided by the days in the month. The current approach of allocating the calculated peak portion on peak monthly throughput dilutes the peak day demand concept by averaging all days of the peak month. . This average is not the actual design day and its use erroneously shifts costs away from the heating load that requires the investment in additional capacity to other classes, including the transportation class.

Q IS THE ALLOCATION OF FIXED DELIVERY COSTS BASED ON DESIGN DAY DEMAND DISCUSSED IN THE NATIONAL ASSOCIATION OF REGULATORY COMMISSIONERS ("NARUC")?

A Yes. NARUC recognizes that distribution mains should be allocated to customer classes based on: (1) design peak day demands for the demand component; and (2) the number of customers for the customer component. In that regard, the NARUC Gas Distribution Rate Design Manual states the following:

> Demand or capacity costs vary with the size of plant and equipment. They are related to maximum system requirements which the system is designed to serve during short intervals and do not directly vary with the number of customers **or their annual usage**. Included in these costs are: the capital costs associated with production, transmission and storage plant and their related expenses; the demand cost of gas; and most of the capital costs and expenses associated with that part of the distribution plant not allocated to customer costs, such as the costs associated with distribution mains in excess of the minimum size. (pages 23-24; emphasis added)

Q ARE YOU AWARE OF ANY OTHER AUTHORITATIVE AGENCY'S POSITION ON THE CLASSIFICATION AND ALLOCATION OF GAS DISTRIBUTION MAIN COSTS?

A Yes. In Order 636, the Federal Energy Regulatory Commission ("FERC") endorsed the straight fixed-cost variable ("SFV") cost methodology, which allocates fixed pipeline cost 100% on a demand basis. In this regard, FERC states:

> The Commission believes that requiring SFV comports with and promotes Congress' goal of a national gas market as discussed above and goes hand-in-hand with the equity principle.
>
> ********
>
> Moreover, the Commission's adoption of SFV should maximize pipeline throughput over time by allowing gas to compete with alternative fuels on a timely basis as the prices of alternate fuels change. The Commission believes it is beyond doubt that it is in the national interest to promote the use of clean and abundant natural gas over alternate fuels such as foreign oil. SFV is the best method for doing that. (FERC Order 636, pp. 127-129 (footnote omitted))

The FERC SFV allocation method appropriately treats fixed pipeline costs as demand-related costs. Similarly, distribution main costs not classified as customer-related on Consumers' system should be treated as demand-related costs to achieve the goals and benefits outlined by FERC and in accordance with NARUC guidance.

Q CAN YOU PROVIDE AN EXAMPLE OF A GAS UTILITY THAT USES THESE TECHNIQUES?

A Yes. NIPSCO, just to the south of the Consumers' territory, uses these techniques for cost allocation. The resulting cost based transportation rate for NIPSCO is significantly lower than the current Rate XLT offered by Consumers. A firm transportation rate for an industrial load of 200,000 Mcf/month would cost 11.7¢ per

Mcf (NIPSCO's Rate 428). The Rate XLT cost would be 53.1¢ per Mcf based on current rates and increase to 58.9¢ per Mcf under Consumers' proposed rates, excluding any additional costs associated with Consumers' proposed IRM. The proposed IRM would add an additional 14.75¢ per Mcf, or 27.8%, and result in a rate of 73.7¢ per Mcf for Rate XLT customers.

With respect to loss factors, NIPSCO's loss factor for the system is 0.93%. The gas in kind factor for large transportation customers is 0.53% reflecting that high pressure customers have lower losses than low pressure customers (NIPSCO Appendix E). This compares to Consumers' current loss factor of 1.83% and its request to increase its loss factor to 2.43%.

Consumers' rates and loss factor are significantly higher than those of its neighbor, NIPSCO, and would become even less competitive under Consumers' request in this case.

Q HAVE YOU PERFORMED A STUDY USING THE PEAK MONTH TO ALLOCATE FIXED COSTS TO CLASSES?

A Yes. The results are shown in Exhibit AB-1. Peak month throughput is used to allocate fixed delivery costs in place of the peak and average method. This method continues to over allocate cost to transportation customers compared to a peak day method, but to a lesser extent than the peak and average method. Utilizing a peak month continues to provide an allocation based on average throughput, but to a lesser extent than the peak and average.

My alternative analysis shows that transportation customers are continuing to provide the above average rates of return. It is important to note that this peak month

study supports a sizeable revenue decrease to the transportation service class, at proposed rate levels.

Distribution of Revenue Increase

Q HAVE YOU CALCULATED HOW THE INCREASE WOULD BE ALLOCATED TO CLASSES BASED ON YOUR ADJUSTMENTS TO CONSUMERS' 2016 COST OF SERVICE STUDY?

A Yes. The revenue allocation shown in Exhibit AB-2 is based on Consumer's Version 2 cost study, corrected with the peak month allocation as opposed to a peak and average allocation of demand related costs.

Q WHAT IS YOUR RECOMMENDATION CONCERNING THE ALLOCATION OF REVENUES TO THE CUSTOMER CLASSES IN THIS CASE?

A For this case, I recommend no increase to transportation customers, but continue to request that Consumers be instructed to provide design day peak data in its next filing.

LAUF and Company Use Percentage

Q IS CONSUMERS PROPOSING TO INCREASE THE LAUF AND COMPANY USE PERCENTAGE?

A Yes. Consumers is again proposing that its current LAUF and Company Use percentage of 1.83% be increased to 2.43% -- an additional increase of 0.60%, which represents an increase of approximately 33% over the current factor.

Q WHAT CUSTOMER RATE CLASSES ARE IMPACTED BY AN INCREASE IN THE LAUF AND COMPANY USE PERCENTAGE?

A An increase in the LAUF and Company use percentage significantly impacts all customers, including transportation customers that are subject to this percentage as a "retainage" or GIK factor. Obviously, lost gas helps no one and any increase in LAUF and Company use gas is a cause for concern.

Q DOES CONSUMERS FREQUENTLY, IN THE CONTEXT OF HISTORICAL RATE PROCEEDINGS, REQUEST AN INCREASE IN THE LEVEL OF LAUF AND COMPANY USE PERCENTAGE?

A Yes. Consumers' response to AB-CE-21, and a similar response supplied by Consumers in Case No. U-16418, attached as Exhibit AB-3, identifies its requested level of LAUF and Company use percentage and the Commission's approved level since 2004. In Case No. U-13730, in 2004, Consumers requested a LAUF and Company use percentage of 0.89% and the Commission approved a level of 0.82%. Compared with Consumers' Commission approved LAUF and Company use percentage in 2004, Consumers' requested LAUF and Company use percentage of 2.43% is almost triple the level of losses in 2004. This dramatic increase is cause for major concern.

Q SHOULD A NATURAL GAS UTILITY'S LEVEL OF LOSSES CONTINUE TO INCREASE EACH AND EVERY YEAR AS CONSUMERS' HISTORICAL RATE CASE FILINGS HAVE SHOWN?

A No. Increased maintenance and replacement of older facilities should actually decrease losses in the future. Leak detection, increased maintenance and the

replacement of older lines should cause a reduction in gas losses. A utility that has increased spending on the maintenance of its system should be expected to decrease, not increase losses in the future.

Q WHAT DO YOU RECOMMEND?

A I recommend that the present LAUF and Company use percentage level of 1.83% remain unchanged in this proceeding. Further, I recommend that the Commission instruct Consumers to begin taking action to lower its LAUF and Company use percentage in future rate proceedings. As I pointed out above, a utility that has increased spending on the maintenance of its system and the replacement of older facilities should be expected to decrease losses in the future.

Investment Recovery Mechanism ("IRM")

Q HAVE YOU REVIEWED CONSUMERS' PROPOSED IRM?

A Yes. Consumers is proposing an IRM that provides for recovery of the incremental annual revenue requirement associated with the 2017, 2018 and 2019 average incremental rate base and the associated direct expenses, beyond the level ultimately approved in test year 2016 rates, with the assurance that the incremental capital expenditures will either be made or the associated revenue requirement recovered from customers will be refunded. The proposed IRM will operate through an annual surcharge effective January 1, 2017 until rates are changed in the subsequent rate case. The surcharge is designed to recover the incremental revenue requirement associated with the annual projected increase in rate base for the years 2017, 2018 and 2019.

It should be noted that the costs reflected in the proposed IRM occur after the twelve consecutive months Consumers chose as its test year. This essentially means that Consumers is proposing four test years: (1) calendar year 2016; (2) calendar year 2017; (3) calendar year 2018; and (4) calendar year 2019. Section 6(a) of Public Act 286 only refers to using projected costs in one test year "for a future 12-month period in developing its requested rates and charges." The first year of Consumers' proposed IRM for 2017 is clearly outside its chosen test year.

Q WOULD THE RECOVERY OF THESE COST AND REVENUE FLUCTUATIONS THROUGH TRACKING MECHANISMS UNREASONABLY SHIFT RISK FROM UTILITY INVESTORS TO CUSTOMERS?

A Yes. A policy that permits a utility to adjust its rates for individual cost or revenue items outside of a base rate case shifts regulatory risk from utility investors to customers by providing investors with accelerated recognition of specific cost and revenue adjustments in utility rates. Moreover, this change in the Company's risk profile would occur without a corresponding reduction to its rate of return to recognize the reduced business risks faced by the utility.

A utility's allowed return on rate base is established to compensate the utility's investors for the various business risks incurred, among them the risk that regulatory lag will delay the recognition of cost increases or revenue fluctuations in utility rates between base rate cases. Therefore, utility investors are compensated for bearing the risk that the utility's costs or sales revenues could fluctuate between rate cases relative to the levels embedded in the utility's base rates.

Tracking mechanisms shift much of this risk to customers by allowing Consumers to adjust its rates between base rate cases to recover increases in costs

or to offset reductions in bundled sales revenues. Thus, Consumers' investors would be granted expedited rate recognition for these items, without the need to petition for a change in base rates. The Commission should reject the Company's efforts to transfer the traditional utility business risk associated with regulatory lag from investors to customers.

Q WHAT ARE THE RAMIFICATIONS OF TRANSFERRING THIS REGULATORY RISK FROM INVESTORS TO RATEPAYERS?

A When investors bear the risk of regulatory lag, the utility's management has a strong incentive to control cost escalations. This is the case because any cost increases damage the utility's bottom line until the next base rate case. The existing regulatory framework also gives Consumers a strong incentive to control its costs in order to avoid upward pressure on rates.

Q ARE THERE ANY OTHER POLICY CONSIDERATIONS THAT ARE SPECIFIC TO MICHIGAN THAT JUSTIFY A DECISION TO REJECT TRACKER MECHANISMS?

A Yes. The passage of PA 286 has significantly diminished the need for trackers and true-up mechanisms by requiring a utility to receive a final order within 12 months of the filing date. Also PA 286 allows a utility to implement interim rate relief within six months of the filing date.

Consumers has filed rate cases on a regular basis and has received interim and final rate relief in those cases. This has enabled Consumers to adjust its base rate either through interim or final rate relief more frequently than once a year.

Q HAS THE COMMISSION AGREED WITH THE COMMISSION STAFF'S POLICY ARGUMENTS WITH RESPECT TO THE NEED FOR TRACKERS?

A Yes. In a Consumers rate case, the Commission terminated the Company's UETM tracker and rejected the implementation of two other tracking mechanisms. In its Order in that case, the Commission stated as follows:

> "The Staff argues that Act 286, with its generous provisions for the filing of rate cases every 12 months (using projected costs and revenues for a future 12-month period), followed quickly by the self-implementation of unapproved new rates, has rendered tracking and true-up mechanisms largely unnecessary… The Commission agrees with the Staff and finds that, after almost two years of experience with carrying out the mandates of Act 286, ***trackers have become unnecessary.***" [Emphasis added.][1]

The Commission reaffirmed its position in Consumers last electric rate case, Case No. U-16794, and stated that because of Act 286 "tracking mechanisms are unnecessary."[2]

Also, the Commission issued Orders in DECo's rate cases, Case Nos. U-16472 and U-16489. In those Orders, the Commission found that DECo's proposed trackers should be eliminated. The Commission found that with the passage of PA 286, trackers or reconciliation mechanisms were no longer needed.[3]

Q DO YOU HAVE ANY CONCERNS ABOUT CONSUMERS' PROPOSED IRM?

A Yes. The rate increase that Consumers is seeking through the IRM will be larger than the total rate increase that Consumers is seeking in this case. In the rate case, Consumers is seeking a rate increase of $84.7 million (Exhibit A-7, Schedule A1). Under the IRM, Consumers is seeking an increase of approximately of $47 million in 2017, $50 million in 2018, and $50 million in 2019 for a total increase of

[1]Consumers Energy Company, Case No. U-16191, Order, November 4, 2010, pp. 53-54.
[2]Consumers Energy Company, Case No. U-16794, Order, page 99.
[3]Case Nos. U-16472 and U-16489, Michigan Public Service Commission Order, dated October 20, 2011, page 88.

$146.7 million. As a result, the increase proposed by Consumers through the IRM is larger than the increase Consumers is actually seeking in base rates. To put this in perspective, Consumers' allowed increase in its most recent case, U-17643, was $45 million. It should be noted that the transportation customers (specifically Rate XLT) under Consumers' proposal will receive a total rate increase in delivery charges of approximately 39% through 2019.

Q HAS THE COMMISSION RECENTLY REJECTED A SIMILAR PROPOSAL FROM CONSUMERS?

A Yes. Consumers made a similar request in its recent electric rate increase application, Case No. U-17735. The Commission rejected Consumers' requested IRM and stated the following:

> The Commission agrees with the ALJ that policy considerations alone necessitate a decision declining to adopt Consumers' IRM proposal in this case. The IRM proposal appears to constitute a substantial single-issue rate case addressing a future period, without the benefit of accounting for cost reductions which will undoubtedly have occurred, or the benefit of reviewing expenditures for reasonableness and prudence. The Commission finds that the IRM proposal should be rejected.[4]

Q WHAT DO YOU RECOMMEND?

A I recommend that the IRM be rejected in this proceeding.

Q ARE THERE ANY TARIFF CHANGES THAT YOU WOULD LIKE TO COMMENT ON?

A Yes, Consumers is proposing to change Tariff Sheet No. E-4.00 "**E4. SERVICE REQUIREMENTS, E4.1 Quantities, E.** and **F.**" These provisions deal with the

[4]Consumers Energy Company, Case No. U-17735, Order, November 19, 2015, page 87.

termination of transportation contracts and would modify the current practice of allowing customers to remove their gas from storage within 60 days and replace it with a 30-day withdrawal requirement. In addition, Consumers is requesting to change the cash-out provision from the cost of gas billed to sales customers to $1.00/Mcf. These two changes are unreasonable and punitive and should be rejected by the Commission.

Q WHY ARE THESE CHANGES UNREASONABLE?

A A 60-day withdrawal period is reasonable in order to allow customers to orderly sell any stored gas into the market or use that gas in their operations. 60 days will provide customers with flexibility if, for example, their operations were not consuming gas at their normal pace for whatever reason. Consumers' Witness Swank has really not provided any credible reasons why these changes are necessary, stating only that they are a "customer focused resolution." Swank, Direct at 5.

DO YOU HAVE ANY COMMENTS ON THE CASH OUT PRICE?

A The $1.00/Mcf cash out price is punitive to customers and provides a windfall to Consumers. There is no reason that the compensation to transportation customers for gas kept by Consumers should not be at the rate billed to sales customers. There is no compelling reason to penalize gas transportation customers by changing the cash out price to $1.00/Mcf.

Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A Yes, it does.

Qualifications of Nicholas Phillips, Jr.

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Nicholas Phillips, Jr. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q PLEASE STATE YOUR OCCUPATION.

A I am a consultant in the field of public utility regulation and a Managing Principal with the firm of Brubaker & Associates, Inc. ("BAI"), energy, economic and regulatory consultants.

Q PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EMPLOYMENT EXPERIENCE.

A I graduated from Lawrence Institute of Technology in 1968 with a Bachelor of Science Degree in Electrical Engineering. I received a Master's of Business Administration Degree from Wayne State University in 1972. Since that time I have taken many Masters and Ph.D. level courses in the field of Economics at Wayne State University and the University of Missouri.

I was employed by The Detroit Edison Company in June of 1968 in its Professional Development Program. My initial assignments were in the engineering and operations divisions where my responsibilities included the overhead and underground design, construction, operation and specifications for transmission and distribution equipment; budgeting and cost control for operations and capital expenditures; equipment performance under field and laboratory conditions; and

emergency service restoration. I also worked in various districts, planning system expansion and construction based on increased and changing loads.

Since 1973, I have been engaged in the preparation of studies involving revenue requirements based on the cost to serve electric, steam, water and other portions of utility operations.

Other responsibilities have included power plant studies; profitability of various segments of utility operations; administration and recovery of fuel and purchased power costs; sale of utility plant; rate investigations; depreciation accrual rates; economic investigations; the determination of rate base, operating income, rate of return; contract analysis; rate design and revenue requirements in general.

I held various positions at Detroit Edison, including Supervisor of Cost of Service, Supervisor of Economic studies and Depreciation, Assistant Director of Load Research, and was designated as Manager of various rate cases before the Michigan Public Service Commission and the Federal Energy Regulatory Commission. I was acting as Director of Revenue Requirements when I left Detroit Edison to accept a position at Drazen-Brubaker & Associates, Inc., in May of 1979.

The firm of Drazen-Brubaker & Associates, Inc. was incorporated in 1972 and has assumed the utility rate and economic consulting activities of Drazen Associates, Inc., active since 1937. In April 1995, the firm of Brubaker & Associates, Inc. was formed. It includes most of the former DBA principals and staff.

Our firm has prepared many studies involving original cost and annual depreciation accrual rates relating to electric, steam, gas and water properties, as well as cost of service studies in connection with rate cases and negotiation of contracts for substantial quantities of gas and electricity for industrial use. In these cases, it was necessary to analyze property records, depreciation accrual rates and

reserves, rate base determinations, operating revenues, operating expenses, cost of capital and all other elements relating to cost of service.

In general, we are engaged in valuation and depreciation studies, rate work, feasibility, economic and cost of service studies and the design of rates for utility services. In addition to our main office in St. Louis, the firm also has branch offices in Phoenix, Arizona and Corpus Christi, Texas.

Q WHAT ADDITIONAL EDUCATIONAL, PROFESSIONAL EXPERIENCE AND AFFILIATIONS HAVE YOU HAD?

A I have completed various courses and attended many seminars concerned with rate design, load research, capital recovery, depreciation, and financial evaluation. I have served as an instructor of mathematics of finance at the Detroit College of Business located in Dearborn, Michigan. I have also lectured on rate and revenue requirement topics.

Q HAVE YOU PREVIOUSLY APPEARED BEFORE A REGULATORY COMMISSION?

A Yes. I have appeared before the public utility regulatory commissions of Arkansas, Delaware, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Michigan, Missouri, Montana, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, South Dakota, Virginia, West Virginia, and Wisconsin, the Lansing Board of Water and Light, the District of Columbia, and the Council of the City of New Orleans in numerous proceedings concerning cost of service, rate base, unit costs, pro forma operating income, appropriate class rates of return, adjustments to the income statement, revenue requirements, rate design, integrated resource planning, power plant operations, fuel cost recovery, regulatory issues, rate-making issues,

environmental compliance, avoided costs, cogeneration, cost recovery, economic dispatch, rate of return, demand-side management, regulatory accounting and various other items.

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Consumers Energy Company

Adjusted 2016 Test Year Gas Cost of Service Study
Using Peak Month Allocator
(Thousands of Dollars)

Line	Description	Total	Residential	Rate GS-1	Rate GS-2	Rate GS-3	Total General Commercial Service	Rate ST	Rate LT	Rate XLT	Total Transp. Service
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Total Revenue	**$1,758,956**	$ 1,285,716	$ 151,341	$ 206,698	$ 55,440	$ 413,479	$ 22,803	$ 16,598	$ 20,361	$ 59,761
2	Total Expenses	**1,560,763**	1,149,911	135,167	183,590	50,176	368,933	14,195	10,864	16,860	41,919
3	Net Operating Income	**198,193**	135,804	16,174	23,108	5,264	44,546	8,608	5,734	3,501	17,842
4	Test Year AFUDC	**7,611**	5,218	669	1,016	302	1,986	108	104	194	406
5	Adjusted Net Operating Income	**205,804**	141,023	16,842	24,124	5,566	46,533	8,716	5,838	3,695	18,248
6	Rate Base	**$4,014,528**	$ 2,877,523	$ 326,661	$ 443,181	$ 117,786	$ 887,628	$ 74,684	$ 62,920	$ 111,772	$ 249,377
7	Calculated Rate of Return	**5.13%**	4.90%	5.16%	5.44%	4.73%	5.24%	11.67%	9.28%	3.31%	7.32%
8	Requested Rate of Return	**6.42%**	6.42%	6.42%	6.42%	6.42%	6.42%	6.42%	6.42%	6.42%	6.42%
9	Revenue Deficiency/(Sufficiency)	**$ 84,687**	$ 71,328	$ 6,734	$ 7,050	$ 3,258	$ 17,041	$ (6,423)	$ (2,948)	$ 5,688	$ (3,682)

MICHIGAN PUBLIC SERVICE COMMISSION

MPSC Case No.: U-17882
Exhibit AB-2
Consumers Energy Company
Date: December 4, 2015
Summary of Present and Proposed Revenue by Rate Schedule
Witness: Nicholas Phillips, Jr.
Total Revenue

Line No.	Description	(a) Monthly Cust. Count	(b) Annual Consumption	(c) Present Revenues	(d) Proposed Revenues	(e) Difference Revenues	(f) Difference Percent
			MMcf	$000	$000	$000	%
	Gas Sales [1]						
	Residential Service						
1	Single Family Dwelling A	1,601,924	151,950	$ 1,174,869	$ 1,240,307	$ 65,437	5.6
2	Multifamily Dwelling A-1	9,124	6,794	44,526	46,175	1,649	3.7
3	Total Residential Service	1,611,048	158,744	1,219,395	1,286,481	67,086	5.5
	General Service						
4	Small Service GS-1	101,561	21,455	142,688	150,879	8,191	5.7
5	Medium Service GS-2	26,582	34,111	194,023	204,010	9,986	5.1
6	Large Service GS-3	912	10,533	51,752	54,082	2,331	4.5
7	Outdoor Lighting GL	8	2	13	10	(3)	(23.4)
8	Total General Service	129,063	66,101	388,476	408,981	20,505	5.3
9	Total Gas Sales	1,740,111	224,844	1,607,871	1,695,463	87,592	5.4
	Transportation						
10	Small Transport ST	1,370	18,695	22,270	20,349	(1,921)	(8.6)
11	Large Transport LT	558	19,873	16,126	14,573	(1,553)	(9.6)
12	Extra-large Transport XLT	254	37,887	19,539	19,792	253	1.3
13	Total Transportation	2,182	76,455	57,935	54,714	(3,222)	(5.6)
14	Total Service (Delivery & Fuel)	1,742,293	301,300	$ 1,665,806	$ 1,750,176	$ 84,370	5.1
15	Additional Late Payment Charge Revenues					315	
16	Revenue increase/(decrease) due to rounding					2	
17	Total Revenue (Sufficiency)/Deficiency					$ 84,687	

Note
[1] Includes aggregate billed transportation accounts.

17882-AB-CE-21

Question:

20. Provide the level of loss and Company use percentages requested by Consumers and the level granted by the Commission in the last five cases before the MPSC.

Response:

20. See below.

MPSC Case Nos. U-15506, U-16418, U-16855 and U-17643 were MPSC orders approving settlement agreements. Therefore, the MPSC-approved gas-in-kind percentages coming out of those four cases does not represent a litigated result in which the Commission made a factual determination based on record evidence regarding the appropriate level of LAUF and Company Use Gas. The current gas-in-kind percentage is simply a continuation of levels set in the Commission's order in Case No. U-15986 on May 17, 2010.

Case Number	Order		Allowance for Use and Losses Percentage	
	Year	Month	Company Filed	MPSC Approved
U-17643	2015	January	2.40%	1.83%
U-16855	2012	June	2.41%	1.83%
U-16418	2011	May	2.12%	1.83%
U-15986	2010	May	1.86%	1.83%
U-15506	2008	December	1.58%	1.09%

Sarah H. Bowers
September 22, 2015

Geospatial and Gas Asset Management Department

16418-AB-CE-210

Question:

47. Provide the level of loss and Company use percentages requested by Consumers Energy and the level granted by the Commission in the last five cases before the MPSC.

Response:

47. See below. Cases U-15506 and U-15190 were orders approving settlement agreements.

Case Number	Order		Allowance for Use and Losses Percentage	
	Year	Month	Company Filed	MPSC Approved
U-15986	2010	May	1.860%	1.830%
U-15506	2008	December	1.584%	1.090%
U-15190	2007	August	1.438%	1.200%
U-14547	2006	November	1.122%	1.180%
U-13730	2004	October	0.890%	0.820%

Steven B. Beachum
November 29, 2010

Gas Asset Management Department

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of CONSUMERS ENERGY COMPANY for authority to increase its rates for the distribution of natural gas and for other relief	)))))))	**Case No. U-17882**

Direct Testimony and Exhibits of

Christopher C. Walters

On behalf of

Association of Businesses Advocating Tariff Equity ("ABATE")

December 4, 2015

BRUBAKER & ASSOCIATES, INC.

Project 10127

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of CONSUMERS ENERGY COMPANY for authority to increase its rates for the distribution of natural gas and for other relief	)	**Case No. U-17882**

Direct Testimony of Christopher C. Walters

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Christopher C. Walters. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q WHAT IS YOUR OCCUPATION?

A I am a consultant in the field of public utility regulation at Brubaker & Associates, Inc., energy, economic and regulatory consultants.

Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A This information is included in Appendix A to my testimony.

Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

A I am testifying on behalf of the Association of Businesses Advocating Tariff Equity ("ABATE"). ABATE's members are customers of Consumers Energy Company ("Consumers" or "Company").

Q WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A My testimony will address Consumers' proposed rate of return on common equity ("ROE").

Q PLEASE BRIEFLY SUMMARIZE YOUR CONCLUSIONS AND RECOMMENDATIONS IN THIS PROCEEDING.

A My conclusions and recommendations are as follows:

1. Consumers' proposed ROE of 10.70% is excessive and significantly exceeds its current cost of equity.

2. Mr. Rao's inclusion of National Fuel Gas ("NFG") in his comparable utility company proxy group is inappropriate. NFG is a diversified company whose utility operations provided less than 25% to its 2014 consolidated earnings. NFG is not risk comparable to Consumers or the remaining proxy group companies, is an overwhelmingly non-rate regulated company, and should be excluded from the proxy group.

3. Consumers' proposed ROE of 10.70% is more than 120 basis points higher than current industry average authorized ROEs. The average authorized ROEs for gas utilities in 2013 and 2014 have been 9.68% and 9.78%, respectively. The average authorized ROE through September 2015 was 9.49%. During that time, utilities were able to access large amounts of capital and support strong credit ratings.

4. Mr. Rao's Capital Asset Pricing Model ("CAPM") is overstated because his use of the historical risk-free rate of 5.07% for the period 1926 through 2014 is inappropriate and inconsistent with the forward nature of the CAPM analysis. In the current market, a projected risk-free rate of 3.62% through 2016 should be used in the CAPM analysis.

5. Mr. Rao's Empirical Capital Asset Pricing Model ("ECAPM") is flawed and overstated. His use of an adjusted beta in his ECAPM analysis is not supported by academic research. The ECAPM was designed to use an unadjusted, or raw, beta estimate.

6. Correcting the deficiencies in Mr. Rao's studies (use of historical risk-free rates, taking into consideration national average authorized returns and correcting severe deficiencies in his CAPM, and ECAPM models) shows that a fair and balanced ROE for Consumers is in the range of 9.1% to 9.8%, with a midpoint of 9.5%.

7. I recommend an ROE of 9.50% for Consumers. My recommended ROE of 9.50% is in-line with the current trend of authorized ROEs being awarded to gas utilities and is within my recommended range.

8. Awarding a fair and balanced ROE is needed to achieve just and reasonable rates. Reducing Consumers' return on equity to 9.5% from its requested 10.7% lowers its claimed revenue deficiency by $32.8 million, or 38.7%.

Return on Equity

Q WHAT ROE IS CONSUMERS PROPOSING FOR THIS PROCEEDING?

A Consumers is proposing an ROE of 10.70% based on the testimony of Consumers' witness Mr. Dhenuvakonda Rao. His proposed ROE is the midpoint of his recommended range of 10.50% to 10.90%.[1]

Q WHAT IS THE COMPANY'S CURRENT AUTHORIZED ROE?

A On January 13, 2015, the Commission issued its Final Order approving a Settlement Agreement filed by the Parties in Consumers' last rate case (Michigan Public Service Commission, Case No. U-17643), which included an authorized ROE of 10.30%. This is the same ROE that was authorized by the Commission on June 7, 2012 in Case No. U-16855.

Q HAVE REGULATORY COMMISSIONS RECOGNIZED THE DECLINE IN CAPITAL COSTS IN THE AUTHORIZED RETURNS ON EQUITY?

A Yes. Table 1 shows the average authorized ROE for gas utilities over the last five years. As Table 1 shows, there has been a downward trend in the level of authorized returns on equity by regulatory commissions. Regulators have appropriately captured the gas utility industry and capital market trends in authorizing lower returns on

[1] Rao Direct Testimony at 4.

equity. In fact, since 2011, authorized returns on equity for gas utilities have continued to decline well below 10%.

TABLE 1

Gas Utilities'
Authorized ROE

Line	Year	ROE
1	2010	10.08%
2	2011	9.92%
3	2012	9.94%
4	2013	9.68%
5	2014	9.78%
6	2015*	9.49%

Source:
Regulatory Research Associates, "Major Rate Case Decisions -- January - September 2015," October 13, 2015.

*Through September 30, 2015.

The Company's proposed ROE is substantially overstated as evidenced by Industry authorized ROEs. It does not reflect the current market and regulatory environment, and unnecessarily increases Consumers' claimed revenue deficiency in this proceeding. If the Company's proposed ROE of 10.70% is adopted, the resulting gas rates will be unjust and unreasonable.

In fact, the U.S. Supreme Court has held that a just and reasonable ROE should be "commensurate with returns on investments in other enterprises having corresponding risks . . . [and] sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.[2] An allowed ROE or capital structure in excess of that standard exploits consumers and produces tariff rates that are not just and reasonable.

[2] *Federal Power Comm'n v. Hope Natural Gas Co.,* 320 U.S. 591, 603 (1944); *Bluefield Water Works & Improvement Co. v. Public Serv. Comm'n. of W. Va.,* 262 U.S. 679, 692-93 (1923).

Q HAVE UTILITIES HAD ACCESS TO CAPITAL AND STRONG CREDIT RATINGS DURING THIS TIME PERIOD WHILE REGULATORS HAVE LOWERED AUTHORIZED RETURNS ACROSS THE INDUSTRY?

A Yes. As discussed in more detail below, regulated utilities have been able to fund a robust capital program and strengthen their credit ratings during this period.

Q THE COMPANY IS REQUESTING A 10.70% RETURN ON EQUITY IN THIS PROCEEDING. WHEN WAS THE LAST TIME THE GAS UTILITY INDUSTRY AVERAGE AUTHORIZED RETURN ON EQUITY REACHED 10.70%?

A The last time the industry was authorized an average return on equity near 10.7% was in 2004. In 2004, the average authorized return on equity was 10.6%.

Q WILL YOU PLEASE GENERALLY DESCRIBE CAPITAL MARKET CONDITIONS DURING 2004?

A Yes. In 2004, capital costs were significantly higher than they are today. Below in Table 2, I compare the average yields on 10-Year Treasury securities, as well as A and Baa rated utility bonds from 2004 and 2015. I also show the projected 10-Year Treasury yield for 2016.

As shown in Table 2 below, capital costs in 2004 were significantly higher than they are today. In fact, 10-year Treasury yields, year-to-date through September, are approximately 50% lower than in 2004. The consensus projected 10-Year Treasury yield is also 157 basis points lower than the yield in 2004.

TABLE 2

Yield Comparison

Year	10-Year Treasury	A-Rated Utility	Baa-Rated Utility	Authorized ROE
2004	4.27%	6.16%	6.40%	10.59%
2015	2.12%	4.04%	4.86%	9.49%
2016	2.70%			

Q DO YOU BELIEVE THIS TO BE RELEVANT INFORMATION?

A Absolutely. This shows just how far out of line the Company's request is. As I discuss in detail later in this testimony, Consumers is not an above-average risk utility and therefore should not be awarded an above-average return on equity.

Regulated Utility Industry Market Outlook

Q PLEASE DESCRIBE REGULATED UTILITIES' CREDIT RATING OUTLOOK.

A Over the recent past, the utility industry's credit ratings have improved and the credit outlook has improved and is now Stable. Further, credit analysts have observed that utilities currently have strong access to capital at attractive pricing (i.e., low capital costs).

Standard & Poor's ("S&P") recently published a report titled "The Outlook For U.S. Regulated Utilities Remains Stable On Increasing Capital Spending And Robust Financial Performance." S&P noted the following:

> **Capital Spending Will Grow**
>
> Consistent with the trend over the past 10 years, we expect that utility company capital spending will continue to grow (see related article "U.S. Regulated Electric Utilities' Annual Capital Spending Is Poised To Eclipse $100 Billion," July 29, 2014). We project that capital spending will reach an all-time high of about $95 billion in 2014, reflecting growing funding needs for environmental compliance projects and new transmission investments. For 2015-2016, we

> expect capital spending overall to slow somewhat, but transmission investments to continue to grow to address reliability, accommodate new generation, and integrate renewable energy projects into the grid. The slowdown in the next few years is due to environmental compliance-related capital spending that reflects the completion of of [sic] the necessary projects for much of coal-fired generation to meet the existing U.S. Environmental Protection Agency's (EPA) Mercury and Air Toxics Standards (MATS). Beginning in 2017, we expect the industry's generation and overall capital spending needs to pick up significantly, consistently exceeding $100 billion annually. This hike reflects some utilities' decisions to proactively boost lower carbon-intensive generation capital spending in order to meet the EPA's recently announced proposed carbon pollution rules.

* * *

INDUSTRY RATINGS OUTLOOK: STABLE

> Our outlook on the regulated utility sector, which encompasses electric, natural gas, and water companies, is stable with a slightly positive bias, with about 20% of companies in the sector having a positive outlook. The positive bias is not industry wide, rather it is the result of certain issuers undertaking actions that can benefit their credit profiles, a trend that has been making its way through the industry over the past few years. We have seen companies, when opportune, endeavor to reduce business risk while maintaining or slightly enhancing their financial profiles. Overall, our fundamental view of the sector is a stable one, supported by the essential nature of the services provided, making the companies somewhat insensitive to economic fluctuations; the rate-regulated nature of the business, which lends a measure of stability and predictability to cash flow generation; and the <u>generally supportive posture of regulators</u> toward cost recovery of incremental investments facilitated by the ongoing low power prices.[3]

Similarly, Fitch states:

> **Stable Sector Outlook:** Fitch Ratings' stable outlook for the U.S. Utilities, Power and Gas (UPG) sector reflects modest recovery in electricity sales after three years of stagnant growth. The recently observed positive momentum in industrial sales could sustain in line with the broader economic recovery and potentially spill over to other sectors. This is welcome news for electric utilities wrestling with structural headwinds posed by energy efficiency and distributed generation, and pressure on retail prices as costs are spread over declining units of sales.

[3] *Standard & Poor's RatingsDirect*: "Industry Report Card: The Outlook For U.S. Regulated Utilities Remains Stable On Increasing Capital Spending And Robust Financial Performance," December 16, 2014 at 4, emphasis added.

* * *

> **Divergence in Subsector Rating Outlook**
> The outlook for electric and gas utilities and utility parent companies is stable given the backdrop of gradual economic recovery, low inflation and subdued interest rates, and stable commodity prices. Issuer Default Ratings should remain on the cusp of 'BBB+' to 'A–', with more than 90% of debt issuances being rated in the 'A' category. Long-term debt instrument ratings of Fitch's entire universe of regulated utilities carry investment-grade ratings, a testament to the sound credit profile of the industry. The outlook for gencos is negative, reflecting poor sector fundamentals, including weak electricity demand and low power prices. Affiliated gencos generally have investment-grade ratings and may be under greater rating pressure. Recent consolidation among independent gencos has added scale and diversity, and is a credit positive.[4]

Moody's recent comments on the U.S. Utility Sector state as follows:

> Our outlook for the US regulated utilities industry is stable. This outlook reflects our expectation for the fundamental business conditions in the industry over the next 12 to 18 months.
>
> » **Regulatory support is the most important driver of our stable outlook**. Our stable outlook for the US regulated utility industry is based on our expectation that regulators will continue to help utilities recover costs and maintain stable cash flow, such that the ratio of cash flow from operations (CFO) to debt will remain close to 20%, on average, for the industry.[5]

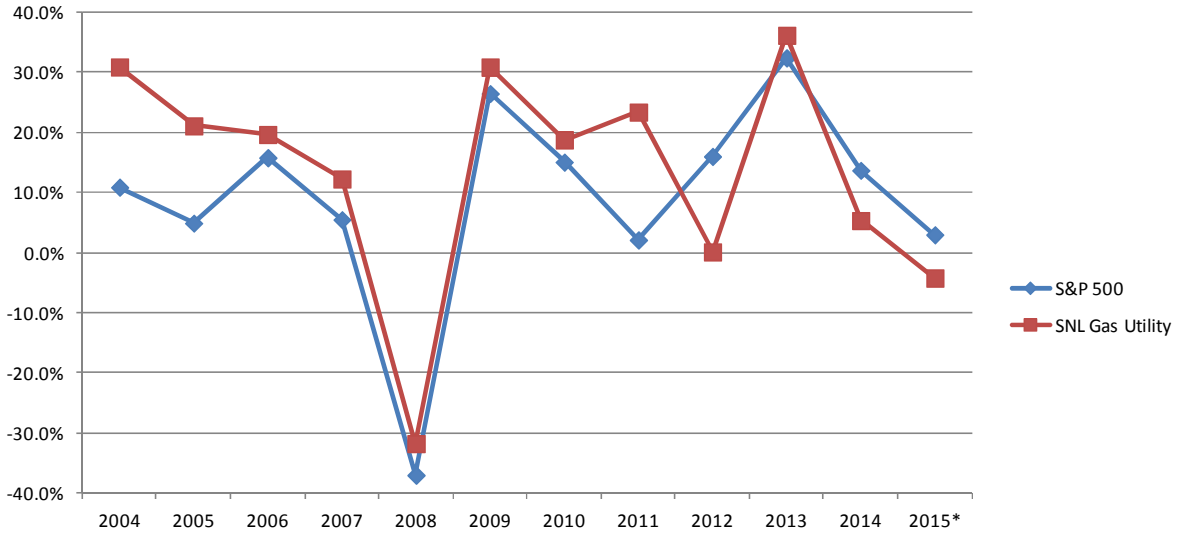
Q PLEASE DESCRIBE UTILITY STOCK PRICE PERFORMANCE OVER THE LAST SEVERAL YEARS.

A As shown in the graph below, the SNL Financial ("SNL") has tracked utility stock price performance compared to the market. The SNL data shows its Gas Utility Index has outperformed the market in all but three years over the near 12-year span. This supports my conclusion that gas utility stock investments are regarded by market participants as a moderate- to low-risk investment.

[4] *FitchRatings*: "2015 Outlook: U.S. Utilities, Power and Gas," December 16, 2014 at 1-2, emphasis added.

[5] *Moody's Investors Service*: "2015 Outlook – US Regulated Utilities: Regulatory Support Drives Our Stable Outlook," December 15, 2014 at 1, emphasis added.

Figure 1
Index Comparison



*Through November 19, 2015.
Source: SNL Financial, Downloaded on November 20, 2015.

Q WHAT ARE THE IMPORTANT TAKEAWAY POINTS FROM THIS ASSESSMENT OF UTILITY INDUSTRY CREDIT AND INVESTMENT RISK OUTLOOKS?

A Credit rating agencies consider the regulated utility industry to be stable and also believe investors will continue to provide an abundance of capital to support utilities' large capital programs at moderate capital costs. This supports the continued belief that utility investments are generally regarded as safe-haven or low-risk investments, and the market embraces low-risk investments, such as utility investments. The demand for low-risk investments will provide funding for regulated utilities in general.

Consumers' Investment Risk

Q PLEASE DESCRIBE THE MARKET'S ASSESSMENT OF THE INVESTMENT RISK OF CONSUMERS.

A The market assessment of Consumers' investment risk is best described by credit rating analysts' reports. Consumers' current senior secured credit ratings from S&P and Moody's are "A" and "A1," respectively, with a "Stable" outlook from both rating agencies.

Specifically, S&P states the following:

> **Business Risk: Excellent**
>
> We view Consumers Energy's business risk as "excellent" incorporating our assessment of the regulated utility industry risk as "very low" and country risk as "very low" based on the company's focus on U.S. operations and markets. The business risk profile reflects a competitive position of "excellent," which incorporates the utility's lower-risk, rate-regulated electric and natural gas distribution operations that provide essential services. The company's business risk profile is bolstered by the strength of regulatory support in Michigan where the utility has been able to earn, on average, its allowed return on equity by managing costs, filing forward-looking rate cases, using a six-month self-implementation, and various riders that enhances cash flow predictability. The Michigan economy has generally been improving since the recession and we continue to expect that economic growth within the utility's service territories will generally perform slightly better than the U.S. average.
>
> **Financial Risk: Significant**
>
> We view Consumers' financial risk profile as "significant" using our medial volatility table. We apply the medial volatility table given that the company's cash flows mostly come from vertically integrated electric operations. Given various rate mechanisms that allow for timely cost recovery, coupled with effective cost controls, we expect Consumers' key measures of bondholder protection to remain commensurate with our significant financial risk profile category.[6]

S&P views Consumers as being a low-risk utility. The ratemaking factors such as six month self-implementation of rates, forward looking test years and automatic

[6] *Standard & Poor's RatingsDirect*: "Consumers Energy," April 15, 2015 at 3-4.

adjustment clauses reduce its risk. These factors should be reflected in any authorized ROE.

Q HAS S&P TAKEN A RATINGS ACTION ON CONSUMERS RECENTLY?

A Yes. On December 3, 2014, S&P announced that it will be upgrading CMS Energy Corp. and its utility subsidiary, Consumers.

Specifically, S&P states the following:

Overview:

- We are raising our issuer credit ratings on CMS Energy Corp. and its utility subsidiary Consumers Energy Co. to 'BBB+' from 'BBB' based on the continued focus on the regulated utility business model and supportive cost recovery that we believe will support profit stability and strengthening financial measures.

- We also are raising our ratings on all Consumers' first-mortgage bonds to 'A' from 'A-.' The '1+' recovery ratings on the first-mortgage bonds remain unchanged.

- The rating outlooks are stable based on our expectation that CMS Energy Corp. will continue to effectively manage its regulatory risk, thereby supporting consistent operating results and a financial profile in line with expectations at the current ratings.

***

Rationale:

The upgrade on CMS Energy and Consumers Energy reflects our assessment of CMS Energy's improved business risk profile stemming from its continuing strategy to focus on its regulated utilities, effective management of regulatory risk, and strengthening cost recovery through the regulatory process. Profitability has subsequently stabilized and financial measures have strengthened. We expect that CMS Energy will continue to favor moderate financial policies that support the company's credit measures.[7]

[7] *Standard and Poor's RatingsDirect*. "Research Update: CMS Energy Corp. and Subsidiary Issues Credit Rating Raised to 'BBB+, "Outlook Stable; Other Ratings Action Taken." December 3, 2014. [Emphasis added.]

Q DO YOU HAVE ANY FURTHER COMMENTS IN REGARDS TO CONSUMERS' LOW OPERATING RISK?

A On January 7, 2014, S&P issued a revised assessment of the regulatory environment rankings for investor-owned utilities. The revised regulatory environment methodology assesses regulatory jurisdictions on both quantitative and qualitative factors, focusing on four main categories:

- The stability of the regulatory framework in the jurisdiction;
- Ratemaking procedures;
- Political influence; and
- Financial stability.

In its revised assessment, S&P used a five notch scale to rank the regulatory jurisdictions. The revised rankings are as follows:

- Strong;
- Strong Adequate;
- Adequate;
- Adequate Weak; and
- Weak.

The vast majority of regulatory jurisdictions fall under the "strong adequate" category, two jurisdictions fall under the "adequate" category and 10 jurisdictions fall under the "strong" category. The Michigan regulatory jurisdiction is ranked as "strong," the highest ranking under the revised methodology.

Similarly, Regulatory Research Associates ("RRA"), a division of SNL Financial, maintains three rating categories for regulatory climates: Above Average, Average, and Below Average, where within these categories the numbers from 1 to 3 maintain relative position, with 1 being the strongest and 3 being the weakest. The

evaluations are assigned from an investor prospective and indicate relative regulatory risk and reflect the quality of earnings as a result of regulatory, legislative, and court decisions.

Specifically, RRA states:

> **RRA Evaluation**
>
> Despite the pressures presented by a lackluster (but notably improving) state economy, Michigan regulation has been constructive over the last few years. In the rate cases that have been decided during this time frame, the PSC has generally adopted equity returns that were slightly or modestly above the prevailing industry averages. Several innovative practices have been in place for the last few years: a streamlined rate case process; a framework for the utilization of forecasted test years; the self-implementation of interim rate increases to reduce regulatory lag; and, a PSC review process for significant new infrastructure projects that permits a cash return on construction work in progress and reduces the uncertainty of cost recovery. An electric restructuring framework implemented in 2000 provided the utilities a reasonable opportunity to recover stranded costs; this process has been completed. Current statutes limit the amount of sales that may be procured competitively, and recent attempts to raise this limit have not been successful. Electric utilities have retained their generation assets, and customers who do not select a competitive supplier receive service on a regulated, traditional cost-of-service basis. Adjustment mechanisms are in place for fuel costs for customers served under bundled service. While the PSC had approved revenue decoupling mechanisms for certain electric utilities, a 2012 Court of Appeals ruling overturned the Commission. In the gas industry, the major local distribution companies have instituted programs that allow all retail customers to choose their gas supplier, and modest small-customer switching has occurred. The gas companies utilize periodic gas cost recovery mechanisms, and the PSC has authorized revenue decoupling mechanisms for certain gas utilities. We continue to accord Michigan regulation an Average/1 rating.[8]

Q WHAT ARE THE IMPORTANT TAKEAWAYS FROM YOUR REVIEW OF THE OVERALL INVESTMENT RISK OF CONSUMERS?

A As described in the reports above, Consumers has low business risk and it operates in a credit supportive regulatory environment. Therefore, the Commission should

[8]RRA, Regulatory Focus: "Michigan Regulatory Review – February 13, 2014." [Emphasis added.]

reflect the Company's low risk in the current regulatory proceeding and authorize a fair ROE that will balance the risk of the investors and ratepayers.

Response to Consumers' Witness Mr. Dhenuvakonda Rao

Q PLEASE DESCRIBE MR. RAO'S METHODOLOGY SUPPORTING HIS ROE RECOMMENDATION.

A Mr. Rao supported his ROE recommendation of 10.70% using a discounted cash flow model ("DCF"), a traditional and ECAPM, a RP model and a comparable earnings analysis. He performed these models on a gas company proxy group consisting of nine companies.

Q PLEASE DESCRIBE MR. RAO'S PROCESS OF SELECTING A GROUP OF PROXY COMPANIES.

A Mr. Rao lays out the process of selecting a list of proxy group companies on page 10 of his direct testimony. He starts the process by observing all natural gas companies followed by the *Value Line Investment Survey*. Once the initial universe of companies have been identified, he applies four additional screening criteria. The additional criteria are as follows:

- Each company must be paying current common stock dividends;
- Have bonds with at least of minimum investment grade bond rating of Baa3 by Moody's and BBB- by S&P;
- Have 35% or more of its operating revenues from regulated gas operations; and
- The Company cannot be planning to merge with another company.

After applying these criteria, Mr. Rao developed a proxy group of nine companies.

Q WHAT ISSUES DO YOU HAVE WITH MR. RAO'S PROXY GROUP?

A My primary issue with Mr. Rao's proxy group is his inclusion of NFG. NFG is a diversified oil and gas company. NFG has five main segments including 1) Exploration and Production; 2) Gathering; 3) Pipeline and Storage: 4) Utility; and 5) Energy Marketing. Of all NFG's business segments, Exploration and Production as well as Pipeline and Storage dominate the consolidated Company's earnings and asset base.

Based on this asset and earnings composition, NFG does not reflect the investment risk of a regulated utility company.

Q DO YOU HAVE ANY EVIDENCE TO PROVE THAT NFG IS OVERWHELMINGLY NON-RATE REGULATED AND SHOULD NOT BE IN THE PROXY GROUP?

A Yes. On my Exhibit AB-4, page 1, I show several statistics about NFG from its 2015 10-K. On that exhibit, I show that the Utility segment made up less than 30% of NFG's consolidated assets during 2014 and 2015, in NFG's fiscal year 2014, Utility operations made up less than 25% of NFG's consolidated earnings, and that in its fiscal year 2015, NFG had to write down, or take an impairment charge to its oil and gas producing properties, of approximately $1.13 billion against its earnings.

On page 2 of my Exhibit AB-4, I show each segment's contribution to consolidated Earnings Before Interest Taxes Depreciation and Amortization ("EBITDA"). Over half of NFG's consolidated EBITDA came from one segment, Exploration and Production. Less than 20% of consolidated EBITDA came from the Utility segment.

On that same page, I also show historical and forecasted capital expenditures for each of NFG's business segments. Excluding its Energy Marketing segment,

NFG has, and plans on, investing the least in its Utility segment. Both historically and going forward, NFG will have spent between 8% and 9% of all its consolidated capital expenditures on the Utility segment. Once again, NFG's Pipeline and Storage, and Exploration and Production segments dominate NFG's capital expenditures, collectively making up more than 78% over the 2014-2016 period.

Q DO YOU HAVE ANY ADDITIONAL EVIDENCE TO PROVE THAT NFG IS NOT A RISK COMPARABLE COMPANY AND SHOULD NOT BE IN THE PROXY GROUP?

A Yes. It is obvious that investors view NFG as a much riskier company relative to that of the proxy group when you look at the betas Mr. Rao provided. NFG's beta of 1.15 is significantly higher than that of the proxy group. Beta measures a stock's volatility relative to the overall market. The market has a beta of 1.0. A beta greater than 1.0, such as NFG's, signifies more market risk or price volatility than that of the market. A beta less than 1.0, such as the rest of the proxy group, signifies less market risk and price volatility. For all the reasons enumerated above, NFG is a diversified company that is overwhelmingly non-rate regulated, and should not be included in the proxy group.

Q DO YOU HAVE ANY ADDITIONAL COMMENTS CONCERNING MR. RAO'S SCREENING CRITERIA FOR HIS PROXY GROUP?

A Yes. Mr. Rao's screening criteria requiring 35% or more of a Company's consolidated revenues come from regulated gas utility operations is a poor screening criteria. Revenues can drastically fluctuate due to commodity prices, weather,

consumer demand, and other externalities. Rather, Mr. Rao should use a more meaningful measure such as regulated assets.

Q PLEASE SUMMARIZE YOUR RESPONSE TO MR. RAO'S PROPOSED ROE ESTIMATE FOR CONSUMERS.

A As shown below in Table 3, Mr. Rao is proposing an ROE for Consumers of 10.70%. Mr. Rao's recommendation is excessive. With reasonable and appropriate adjustments to Mr. Rao's proxy group and analyses, his own studies would support an ROE below 10%.

TABLE 3

Summary of Rao's ROE Estimates

Description	Average Rao ROE (1)	Adjusted (2)
CAPM (Projected)	9.53%	9.26%
CAPM (Historical)	10.98%	Reject
Average		9.26%
ECAPM (Projected)	9.76%	9.10%
ECAPM (Historical)	11.22%	Reject
Average		9.10%
Risk Premium (Projected)	9.03%	9.03%
Risk Premium (Historical)	10.48%	10.48%
Average		9.76%
DCF	9.10%	8.94%
Comp. Earnings	12.19%	Reject
Recommended Range	**10.50% - 10.90%**	**9.10% - 9.80%**
Recommended ROE	**10.70%**	**9.50%**

Source:
Exhibit A-10 (DVR-1).

Q DO MR. RAO'S FINDINGS AS SHOWN IN TABLE 3, COLUMN 1, ABOVE, SUPPORT HIS RECOMMENDED ROE OF 10.70%?

A No. It is obvious that Mr. Rao relies heavily on the results of his historical models, which provide no insight to the current market cost of equity. With sound and reasonable corrections to Mr. Rao's studies, a cost of equity below 10% is supported for Consumers in this proceeding.

Mr. Rao's CAPM Analysis

Q PLEASE DESCRIBE MR. RAO'S CAPM ANALYSIS.

A The results of Mr. Rao's CAPM analysis are detailed on Exhibit A-10 (DVR-1), page 3. Mr. Rao performed two different CAPM calculations.

In his calculations, Mr. Rao utilized a combination of two different risk free rates. Of his two risk free rate estimates, one of them is historical and one is projected. The historical risk free rate is measured over the 1926 through 2014 time period (5.07%). His forward looking risk free rate of 3.62% is the average of Global Insight US Economic Outlook and Blue Chip Financial Forecasts projections.

His risk premium estimate measures the historical risk premium over the 1926 through 2014 time period (7.00%).

The results of his CAPM analysis range from 9.53% (projected) to 10.98% (historical). However, Mr. Rao only relies upon the highest estimate of 10.98%. The return estimate of 10.98% relies on the historical risk free rate and historical risk premium. In determining his cost of equity estimate for Consumers, Mr. Rao disregarded the CAPM result utilizing the forward looking risk free rate.

Q WHAT ISSUES DO YOU HAVE WITH MR. RAO'S CAPM RESULTS?

A My major issue with Mr. Rao's CAPM results concerns his use of historical risk free rates. This is wrong because the model is designed to measure the current market cost of equity based on the current market environment. Mr. Rao's use of a historical risk-free rate fails to produce a CAPM result that measures the current cost of equity for Consumers.

Q WHY DO YOU BELIEVE IT IS INAPPROPRIATE TO RELY ON HISTORICAL INTEREST RATES TO MEASURE THE CURRENT MARKET COST OF EQUITY?

A The purpose of the CAPM model is to capture the current market cost of equity, or required rate of return. There is nothing current about Mr. Rao's historical measures of long-term Treasury yields over his historical time period of 1926 to 2014. In fact, current 30-year Treasury yields are approximately 2.9%. By using his historical risk free rate of 5.07%, Mr. Rao is implying Treasury yields are going to increase by approximately 220 basis points in the near term and revert to the historical mean. The most recent consensus projection published in the *Blue Chip Financial Forecasts* is predicting an average 30-year Treasury yield of approximately 3.4% in 2016, with the fourth quarter projection being 3.6%.[9] Mr. Rao's use of historical Treasury yields in his CAPM analysis is simply without merit, produces unreliable results, and should be disregarded.

Q HAS MR. RAO RECENTLY PROPOSED TO SOLELY RELY ON A CAPM ANALYSIS THAT WAS DEVELOPED WITH A HISTORICAL AVERAGE TREASURY YIELD?

A Yes, he has. In Consumers' recent electric rate case, Case No. U-17735, Mr. Rao made a similar proposal to disregard his projected risk-free rate CAPM analysis in favor of only relying on his historical risk-free rate CAPM analysis.

Q WAS MR. RAO'S PROPOSED CAPM ANALYSIS ACCEPTED IN THAT CASE?

A No, it was not accepted. The ALJ stated that Mr. Rao's historical risk-free rate CAPM analysis "appeared to be based, in part, on questionable assumptions" pointing out

[9] *Blue Chip Financial Forecast*, November 1, 2015 at 2.

Mr. Rao's use of a historical average risk-free rate.[10] The Commission did not refute the ALJ's finding with regards to Mr. Rao's historical risk-free rate CAPM analysis in its Order.

Q CAN MR. RAO'S CAPM ANALYSIS BE CORRECTED TO PRODUCE MORE RELIABLE RETURN ESTIMATES?

A Yes. As shown on my Exhibit AB-5, by excluding NFG and applying the revised proxy group beta of 0.81 to his risk premium estimate of 7.00%, and using Mr. Rao's projected risk free rate of 3.62%, the CAPM return estimate would be approximately 9.26%.

Mr. Rao's Empirical CAPM ("ECAPM") Analysis

Q PLEASE DESCRIBE MR. RAO'S ECAPM ANALYSIS.

A Mr. Rao relied on an ECAPM formula which is defined as follows:

$R_i = R_f + \alpha + B_i (R_p - \alpha)$ where:

R_i = Required return for stock i
R_f = Risk-free rate
R_p = Market risk premium
B_i = Beta - Measure of the risk for stock
α = Alpha of the risk-return line

In his book, *New Regulatory Finance*, Dr. Morin reduces this formula to its more pragmatic form to show the math that produces the alpha of 1% to 2%[11] as follows:

$R_i = R_f + 0.25 (R_m - R_f) + 0.75 B_i (R_m - R_f)$ where:

R_i = Required return for stock i
R_f = Risk-free rate
R_m = Return on the market

[10]Case No. U-17735, Proposal for Decision, September 16, 2015, page 86.
[11]Roger A. Morin, Ph.D., *New Regulatory Finance*, page 190.

B_i = Beta - Measure of the risk for stock

In its reduced form, the ECAPM analysis modifies the traditional CAPM equation by including a risk premium weighted by the utility beta, and the overall market beta of 1.0. The original ECAPM analysis was designed to use unadjusted regression betas. In Mr. Rao's ECAPM analysis, rather than making the adjustments to the average utility beta and market beta, he adds the midpoint of Dr. Morin's prescribed range of alpha of 1% to 2%, or 1.5%. By choosing this alpha of 1.5%, Mr. Rao effectively uses a market beta weighting factor of 0.22 and a utility beta weighting factor of 0.78, rather than the 0.25 and 0.75 weighting factors shown above.

Q WHAT ISSUES DO YOU TAKE WITH MR. RAO'S ECAPM ANALYSIS?

A The ECAPM analysis presented by Mr. Rao should be rejected for several reasons. First, the practical result of Mr. Rao's ECAPM is that the CAPM return is based on a beta estimate of 0.88,[12] instead of his actual *Value Line* utility beta of 0.84. The ECAPM analysis significantly overstates a utility company-specific risk premium for use in a risk premium analysis.

Second, Mr. Rao incorrectly applies an adjusted beta in his ECAPM analysis. The ECAPM was developed to adjust the traditional CAPM return estimate if an unadjusted beta is used. Theoretical constructs of the ECAPM are based on a raw beta or unadjusted betas. Using a raw beta, the ECAPM will increase the CAPM return estimate when the raw betas are less than 1.0, and decrease the CAPM return estimate when the raw betas are greater than 1.0.

[12]Weighted at 78% utility proxy beta of 0.84, plus the market beta of 1.0 weighted at 22%.

Q WHAT HAPPENS IF YOU USE AN ADJUSTED BETA IN AN ECAPM ANALYSIS?

A If an adjusted beta is used in the ECAPM, you double-count the adjustment to the return on equity estimate. Value *Line*'s adjusted beta creates the same impact on a CAPM return estimate as the ECAPM. Specifically, *Value Line*'s beta adjustment when used in a traditional CAPM return estimate, will increase a CAPM return estimate when the beta is less than 1.0, and decrease the CAPM return estimate when the beta is greater than 1.0. Therefore, an ECAPM with a raw beta produces the same impact on the CAPM return estimate as does a traditional CAPM using an adjusted beta estimate.

Importantly, I am not aware of any research that was subjected to peer review that supports Mr. Rao's proposed use of an adjusted beta in an ECAPM study. Therefore, Mr. Rao's proposal to use an "adjusted" beta, such as those provided by *Value Line*, in an ECAPM analysis is not based on sound academic principles, is not supported by the academic community, and should be rejected.

Further, using an adjusted beta in an ECAPM analysis, as Mr. Rao proposes, double-counts the increase in the CAPM return estimates for betas less than 1.0, and correspondingly would decrease the CAPM return estimates for companies that have betas greater than 1.0. Since utility companies have betas less than 1.0, Mr. Rao's application of an ECAPM with adjusted beta estimates overstates a CAPM return estimate for a utility company.

For all these reasons, Mr. Rao's ECAPM analysis should be rejected.

Q CAN MR. RAO'S ECAPM ANALYSIS BE MODIFIED TO PRODUCE A MORE REASONABLE RESULT?

A The only acceptable method of producing a reasonable ECAPM result would be using raw beta estimates (i.e., unadjusted) rather than the *Value Line* "adjusted" beta estimates. *Value Line*'s adjusted beta estimates are produced using the equation of giving 35% weight to the market beta of 1, and 67% weight to the raw beta estimate. Using this estimate, *Value Line*'s raw beta estimate based on a proxy group adjusted beta estimate of 0.84 would be 0.74. Using the 0.25 and 0.75 beta weighting factors described in the formula above, using a raw beta estimate of 0.74, Mr. Rao's risk-free estimate of 3.62% and his market risk premium of 7.00%, produces a correct ECAPM estimate of 8.95% (excluding NFG from the proxy group) and 9.24% (including NFG in the proxy group).

My ECAPM estimates range from 8.95% to 9.24%, with a midpoint of 9.10%, as shown on my Exhibit AB-5.

Q HAS MR. RAO PREVIOUSLY PROPOSED A SIMILAR ECAPM ANALYSIS?

A Yes, he has. In Consumers' recent electric rate case, Case No. U-17735, Mr. Rao proposed a similar ECAPM analysis.

Q WAS MR. RAO'S ECAPM ANALYSIS ACCEPTED IN THAT CASE?

A No, it was not accepted. The ALJ rejected Mr. Rao's ECAPM for the very reasons I have explained above.[13] The Commission did not refute the ALJ's finding with regards to Mr. Rao's ECAPM analysis in its Order.

[13]Case No. U-17735, Proposal for Decision, September 16, 2015, pages 86-87.

Mr. Rao's Risk Premium Analysis

Q PLEASE DESCRIBE MR. RAO'S RISK PREMIUM ANALYSIS.

A Mr. Rao performed two risk premium analyses which are developed on pages 5-7 of his Exhibit A-10 (DVR-1). His first analysis measures the historical spread of gas utility common stock returns over utility bonds. That risk premium is measured at 3.95%. He then adds corporate-to-utility bond spreads ranging from 1.14% to 1.77% to a projected long-term Treasury bond yield of 3.62% to develop a projected utility bond yield range of 4.76% to 5.39%. He then adds his 3.95% historical risk premium to his projected utility bond yields to develop a cost of equity estimate that ranges from 8.71% to 9.34%, with an average of 9.03%.

Mr. Rao's second risk premium analysis utilizes the same historical risk premium of gas utility common stock returns over utility bonds of 3.95%. He then measures the historical long-term government bond return as 5.07%. He then adds the same corporate utility credit spreads from his prior risk premium analysis to the historical long-term Treasury yields to develop an estimated bond yield that ranges from 6.21% for an A+ rated utility bond to 6.84% for a BBB utility bond. This produces a cost of equity estimate range of 10.17% to 10.80%, with an average of 10.48%.

Mr. Rao contends that his risk premium estimates developed using the historical risk-free rate of 5.07% "provide a better indication of current investor expectations […]."[14] Because of this opinion, Mr. Rao awards zero weight to his risk premium estimates that were developed using a projected risk-free weight of 3.62%.[15]

[14]Rao Direct Testimony at 17.
[15]Exhibit A-10 (DVR-1), page 14.

Q DO YOU HAVE ANY COMMENTS WITH REGARDS TO MR. RAO'S RISK PREMIUM ANALYSIS?

A Mr. Rao's sole reliance on the historical average Treasury yield to develop a risk premium analysis and complete disregard of projected rates is without merit. Observable market evidence of current capital market costs is not used in his historical risk premium study. Mr. Rao has provided no evidence to suggest that investors are using a 78-year old average yield to make investment decisions. Mr. Rao has provided no evidence to suggest that investors are not using current consensus economists' projected yields to make investment decisions. Rather, he chooses to ignore the consensus estimate of the risk-free rate provided by well-known economic publications that are likely to be relied on by investors in favor of a historical average yield.

At a minimum, Mr. Rao should apply equal weight to his risk premium estimates developed using the projected risk-free rate of 3.62%. Had Mr. Rao given equal weight to both of his risk premium studies, the averages would have been in the range of 9.03% to 10.48% with a point estimate of 9.76%.

I should note that I do not endorse the use of developing a risk premium cost estimate using a historical equity risk premium added to a historical bond yield. This measure tells us nothing about the expected cost of equity over the rate period.

Mr. Rao's DCF Analysis

Q PLEASE DESCRIBE MR. RAO'S DCF ANALYSIS.

A Mr. Rao performed a constant growth DCF model as part of his analysis to estimate the cost of equity for Consumers. In his analysis, Mr. Rao relied upon an average long-term growth rate of 5.51% and expected dividend yield of 3.59%. The average

cost of equity estimate produced by his DCF study is 9.10% as shown on his Exhibit A-10 (DVR-1), page 8.

Q DOES MR. RAO EXPRESS ANY CONCERNS ABOUT THE RESULTS OF HIS DCF ANALYSIS?

A Yes. At page 21 of his direct testimony, Mr. Rao states that the use of short-term growth rates such as those provided by *Value Line*, *Zacks*, and *Yahoo* results in understating the true investor required return in its current environment.

Q PLEASE RESPOND TO MR. RAO'S CONCERN ABOUT THE GROWTH RATES HE RELIED ON IN HIS DCF ANALYSIS.

A While it is true that if current short-term growth estimates provided by the sources listed above are abnormally low, the DCF result would produce a low estimate of the true cost of equity under the constant growth stage form of the DCF model. If Mr. Rao believed that to be the case, he should have performed a multi-stage growth DCF analysis to develop a more appropriate cost of equity estimate.

Q ARE MR. RAO'S SHORT-TERM GROWTH RATES ABNORMALLY LOW?

A No, quite the opposite actually. In the multi-stage form of the DCF model, it is widely accepted to use the projected nominal GDP growth rate as the third stage growth estimate. At this time, projected nominal GDP growth is expected to be approximately 4.4% into the future.[16] If anything, the results of Mr. Rao's constant growth DCF analysis are overstated since his average growth estimate used in

[16]Blue Chip Economic Indicators, October 10, 2015, page 14.

perpetuity of 5.51% is higher than that of projected nominal GDP growth by approximately 110 basis points, all else constant.

Therefore, at this time, Mr. Rao's constant growth DCF analysis does not produce an understated estimate of the cost of equity because of the use of short-term growth rates in perpetuity.

Q DO YOU BELIEVE GROWTH RATES CAN CHANGE OVER TIME?

A Analyst projected growth rates over the next three to five years will change as utility earnings growth outlooks change. Utility companies go through cycles in making investments in their systems. When utility companies are making large investments, their rate base grows rapidly, which in turn accelerates earnings growth. Once a major construction cycle is completed or levels off, growth in the utility rate base slows, and its earnings growth slows from an abnormally high three- to five-year rate to a lower sustainable growth rate.

As major construction cycles extend over longer periods of time, even with an accelerated construction program, the growth rate of the utility will slow simply because rate base growth will slow, and the utility has limited human and capital resources available to expand its construction program. Therefore, the three- to five-year growth rate projection should be used as a long-term sustainable growth rate but not without making a reasonable informed judgment to determine whether it considers the current market environment, the industry, and whether the three- to five-year growth outlook is sustainable.

Q WHY IS THE GDP GROWTH PROJECTION A REASONABLE PROXY FOR THE MAXIMUM SUSTAINABLE LONG-TERM GROWTH RATE?

A Utilities cannot indefinitely sustain a growth rate that exceeds the growth rate of the economy in which they sell services. Utilities' earnings/dividend growth is created by increased utility investment or rate base. Such investment, in turn, is driven by service area economic growth and demand for utility service. In other words, utilities invest in plant to meet sales demand growth, and sales growth, in turn, is tied to economic growth in their service areas.

Q IS THERE RESEARCH THAT SUPPORTS YOUR POSITION THAT, OVER THE LONG TERM, A COMPANY'S EARNINGS AND DIVIDENDS CANNOT GROW AT A RATE GREATER THAN THE GROWTH OF THE U.S. GDP?

A Yes. This concept is supported in published analyst literature and academic work. Specifically, in a textbook entitled "Fundamentals of Financial Management," authored by Eugene Brigham and Joel F. Houston, the writers state as follows:

> The constant growth model is most appropriate for mature companies with a stable history of growth and stable future expectations. Expected growth rates vary somewhat among companies, but **dividends for mature firms are often expected to grow in the future at about the same rate as nominal gross domestic product (real GDP plus inflation)**.[17]

[17] *"Fundamentals of Financial Management*," Eugene F. Brigham and Joel F. Houston, Eleventh Edition 2007, Thomson South-Western, a Division of Thomson Corporation at 298, emphasis added.

Q IS THERE ANY ACTUAL INVESTMENT HISTORY THAT SUPPORTS THE NOTION THAT THE CAPITAL APPRECIATION FOR STOCK INVESTMENTS WILL NOT EXCEED THE NOMINAL GROWTH OF THE U.S. GDP?

A Yes. This is evident by a comparison of the compound annual growth of the U.S. GDP compared to the geometric growth of the U.S. stock market. Morningstar measures the historical geometric growth of the U.S. stock market over the period 1926-2014 to be approximately 5.9%. During this same time period, the U.S. nominal compound annual growth of the U.S. GDP was approximately 6.2%.[18]

As such, the compound geometric growth of the U.S. nominal GDP has been higher but comparable to the nominal growth of the U.S. stock market capital appreciation. This historical relationship indicates the U.S. GDP growth outlook is a conservative estimate of the long-term sustainable growth of U.S. stock investments.

Mr. Rao's Comparable Earnings Analysis

Q PLEASE DESCRIBE MR. RAO'S COMPARABLE EARNINGS ANALYSIS.

A Mr. Rao performs a comparable earnings analysis using his proxy group of electric utility companies. Mr. Rao asserts that he uses the comparable earnings analysis in determining a fair cost of equity for Consumers because, most of the time, utilities are awarded returns on book equity values rather than market values. To perform this analysis, Mr. Rao relies on the projections of returns on book equity from *Value Line* over the period of 2017 through 2019.

[18] *Morningstar, Inc., Ibbotson SBBI 2015 Classic Yearbook* inflation rate of 3.0%, and U.S. Bureau of Economic Analysis, August 27, 2015.

Q DO YOU HAVE ANY ISSUES WITH MR. RAO'S COMPARABLE EARNINGS ANALYSIS?

A Yes. The comparable earnings analysis is a flawed method of estimating a fair ROE for Consumers. A comparable earnings analysis does not measure the return an investor demands in order to assume the risk of an investment opportunity. As such, it does not measure a fair rate of return to allow the utility to make incremental plant investments that are in line with the same return investors would expect by making another investment of comparable risk. Rather, a comparable earnings analysis simply observes historical actual earnings, or projected earnings for the companies, with no consideration of the risk or stability of the earnings.

It is simply inappropriate to rely on an actual earned return as a means of estimating a fair rate of return. An illustration can help make this point clear.

Assume a utility issued a bond 10 years ago at a coupon rate of 7%. The accounting cost of a bond a utility sold years ago is 7%. The cost of this bond can be observed on the utility's books and records in a test year. However, if a utility went to the market in the test year to issue bonds, it would pay the prevailing market rate on the bond – say, 5%. That means a utility's cost of debt capital in the test year is 5% based on the test year market cost of a bond.

The same is true for common equity investments. A utility issues common equity over time to fund capital investments in plant and equipment. A utility has added to its equity base by retaining earnings to grow its invested capital. A fair rate of return on that invested capital should be set equal to the rate of return a utility investor can earn by using its capital to invest in other enterprises of comparable risk. That opportunity cost is based on market factors which relate to the market value of stock, the investment risk, and the expected return of the investment.

Another reason a comparable earnings analysis should be rejected is it could provide misleading results, even if the methodology were reasonable. Specifically, there can be accounting differences between companies which make an earned return on book equity for one company not necessarily comparable to that of another company. For example, differences in accounting for inventory measures, differences for regulatory treatment of construction work in progress, and other investments in working capital accounts may result in earned ROE not being directly comparable between companies. This is in stark contrast to the comparability of required returns based on market information. As such, comparable earnings based on book returns on equity simply do not produce a reliable estimate of a fair ROE.

Q WHAT IS YOUR RECOMMENDED RETURN ON EQUITY?

A Based on the analyses I have described above, I estimate that a fair return on equity for Consumers in the proceeding falls in the range of 9.1% to 9.8%. The low-end of my range is based on results of the DCF and CAPM models, and the high-end of my range is based on the results of the risk premium analysis. I recommend the Commission award Consumers a fair return on equity of 9.5%.

Mr. Rao's Additional Considerations

Q PLEASE DESCRIBE THE ADDITIONAL CONSIDERATIONS MR. RAO REVIEWED IN DETERMINING A FAIR COST OF EQUITY.

A At pages 36-38 of his Direct Testimony, Mr. Rao attempts to make the case for a return on equity of 10.7% because the Company's current and projected "higher level of investment is due to significant under-investing in the past compared to its peers."

He goes on to state that as "the Company tries to "catch-up" on the needed investment […], the capital expenditure program will be larger than its peers."

Mr. Rao asserts that such an ROE is necessary to keep Consumers healthy and in attracting large amounts of capital. Mr. Rao then states that an authorized return on equity below investor expectations could inhibit the Company's access to new external capital.

Q PLEASE RESPOND TO MR. RAO'S ADDITIONAL CONSIDERATIONS.

A I agree with Mr. Rao that a fair return on equity is required to maintain access to capital and that an insufficient authorized return on equity could potentially prohibit the Company from accessing external capital at reasonable costs.

However, I disagree with Mr. Rao that a 10.70% authorized return on equity is necessary to attract capital. In fact, the Company's currently authorized 10.30% return on equity is higher than necessary considering today's current market costs of capital. As I have detailed above, when Mr. Rao's analyses are properly applied, a fair return on equity falls in the range of 9.10% to 10.0%. Both the 10.3% and 10.7% fall outside of this range. It is also obvious that both the Company's current and proposed returns on equity of 10.30% and 10.70%, respectively, are too high when authorized returns on equity around the country are taken into consideration.

Consumers has been awarded the highest return on equity for both gas and electric utilities in 2015.[19] Outside of the 10.3% return on equity Consumers reached in a Settlement and authorized in January 2015, no other gas utility in the country has been awarded a return on equity above 9.80% this year.[20]

[19]Regulatory Research Associates, "Major Rate Case Decisions -- January - September 2015," October 13, 2015.
[20]*Id.*

Q DO YOU AGREE WITH MR. RAO THAT THE COMPANY'S CAPITAL PROGRAM IS HIGHER THAN ITS PEERS AND THAT THIS NECESSITATES A 10.7% RETURN ON EQUITY?

A No. As shown below in Table-4, for the last several years, and projected through at least the next two years, the regulated gas and electric utility industry will have gone through an elevated and record setting capital expenditure cycle. Every year since 2011, the utility industry has invested no less than $70 billion. During the 2015-2017 period, the industry is expected to invest approximately $293 billion, with the most ($103 billion) being invested in 2015. The $103 billion estimated to be invested by utilities this year is nearly double the $52 billion the industry invested in 2006.[21]

[21]SNL Energy, Financial Focus, "Capital Expenditure Update – 2015 Capital Spending Forecast At All Time High," November 5, 2015.

TABLE 4

Utility Capital Expenditures
($ Billions)

Year	Capital Expenditures[1]	Average Gas Utility ROE[2]
2006	$52	10.43%
2007	$60	10.24%
2008	$68	10.37%
2009	$65	10.19%
2010	$65	10.08%
2011	$70	9.92%
2012	$84	9.94%
2013	$85	9.68%
2014	$90	9.78%
2015*	$103	9.49%
2016*	$100	
2017*	$90	

Sources:

[1]SNL Energy, Financial Focus, "Capital Expenditure Update – 2015 Capital Spending Forecast At All Time High," November 5, 2015.

[2]Regulatory Research Associates, "Major Rate Case Decisions -- January - September 2015," October 13, 2015.

*Forecasted

During this capital expenditure cycle, average authorized returns on equity have fallen from a high of 10.48% (electric utilities) and 10.43% (gas utilities) to a current average of 9.55% (electric utilities) and 9.49% (gas utilities). The average gas utility authorized return on equity has fallen 94 basis points from its high of 10.43% during the 2006 to current period.[22]

[22]Regulatory Research Associates, "Major Rate Case Decisions -- January - September 2015," October 13, 2015.

Moreover, during this period the utility industry has received significant credit ratings upgrades from Moody's and S&P even though authorized returns on equity have seen significant declines, primarily because of more constructive regulation.[23]

Q DURING THE PERIOD OF UNDERINVESTMENT POINTED OUT BY MR. RAO, DID CONSUMERS REQUEST OR RECEIVE AUTHORIZED RETURNS ON EQUITY BELOW THE INDUSTRY AVERAGE?

A No. In fact, it is quite the opposite. Ever since the Company's 2003 rate case (Case No. U-13730), Consumers has requested a return on equity that was above the prevailing gas utility industry average by no less than 63 basis points. On average, the Company's request is 110 basis points higher than the prevailing industry average authorized return on equity as shown on my Exhibit AB-6. On average, Consumers' gas operations received an authorized return on equity that was 44 basis points above the prevailing industry average.

Q HAS CONSUMERS' GAS BEEN AFFORDED THE OPPORTUNITY TO EARN ITS AUTHORIZED RETURN ON EQUITY?

A Yes. As a matter of fact, Consumers Gas has earned in excess of its authorized return on equity for quite some time now. According to the Quarterly Financial Report on Michigan Electric and Natural Gas Utilities report that is posted on the Commission website, Consumers Gas has earned a return on equity in excess of its authorized ROE, on a monthly basis, every month since at least March 2013.[24]

[23]Moody's Investors Service, "US utility sector upgrades driven by stable and transparent regulatory frameworks," February 3, 2014 and Standard & Poor's Rating Services, RatingsDirect, "Industry Report Card: The Outlook For U.S. Regulated Utilities Remains Stable On Increasing Capital Spending And Robust Financial Performance," December 16, 2014.

[24]Quarterly Financial Report on Michigan Electric and Natural Gas Utilities, Financial Analysis & Audit Division Michigan Public Service Commission, 2nd Quarter 2015 Update.

During calendar year 2014, Consumers Gas reported earned returns on equity in excess of 13%, often approaching 14%, in 10 of the 12 months.[25] The two months below 13%, October and December 2014, Consumers Gas' earned return on equity was 12.83% and 12.09%, respectively. This same over-earning trend has continued through the first six months of 2015. Even though its gas utility is currently authorized to earn a return of 10.3% on its common equity, Consumers Gas has reported a return on equity in excess of 11% every month through June 2015.[26]

These regulatory results should not discourage investment, even at a return closer to the market cost of equity.

Q DO YOU HAVE ANY OTHER COMMENTS REGARDING THE ADDITIONAL CONSIDERATIONS RAISED BY MR. RAO?

A Yes, I do. It is as important as it is prudent to ensure competitive rates while balancing the interests of investors and ratepayers. If the Commission authorizes a return on equity above 9.8%, the high end of my recommended range, this could potentially lead to unjust rates that are uncompetitive with the Company's peers. Such rates could have potentially dire consequences for the state of Michigan in many ways. For example, if Consumers' rates are deemed too high, this could prevent current Michigan businesses from investing in their Michigan operations, or worse, moving their Michigan operations to a more energy-competitive state. This could also prevent new businesses from potentially investing in Michigan operations.

When awarding Consumers a return on equity in this case, the Commission should balance the interests of ratepayers and investors alike. Ratepayers want safe and reliable service at a reasonable price while investors require a return that

[25] *Id.*
[26] *Id.*

compensates them for the risks they take. An authorized return on equity above the high-end of my recommended range of 9.8% would be unjust in favor of investors, while an authorized return on equity below the low-end of my recommended range of 9.1% would be unjust in favor of ratepayers.

My recommended return on equity of 9.5% best balances the interests of ratepayers and investors. It is also comparable to the average authorized returns on equity awarded to regulated gas utility companies this year.

Q WHAT IS THE IMPACT ON THE COMPANY'S CLAIMED REVENUE DEFICIENCY IF THE COMMISSION ADOPTS YOUR RECOMMENDED RETURN ON EQUITY OF 9.5%?

A Lowering the authorized return on equity to 9.5% from the Company's requested 10.7% would reduce the rate of return on rate base to 5.92% from 6.42%. This would lower the Company's claimed revenue deficiency by $32.8 million, or 38.7%.

Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A Yes, it does.

Qualifications of Christopher C. Walters

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Christopher C. Walters. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q PLEASE STATE YOUR OCCUPATION.

A I am an Associate Consultant in the field of public utility regulation with the firm of Brubaker & Associates, Inc. ("BAI"), energy, economic and regulatory consultants.

Q PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EMPLOYMENT EXPERIENCE.

A I graduated from Southern Illinois University Edwardsville in 2008 where I received a Bachelor of Science Degree in Business Economics and Finance. I graduated with a Master of Business Administration Degree from Lindenwood University in 2011.

In January 2009, I accepted the position Financial Representative with American General Finance and was quickly promoted to Senior Assistant Manager. In this position I was responsible for assisting in the management of daily operations of the branch, analyzing and reporting on the performance of the branch to upper management, performing credit analyses for consumers and small businesses, as well as assisting home buyers obtain mortgage financing.

In January 2011, I accepted the position of Analyst with BAI. As an Analyst, I performed detailed analysis, research, and general project support on regulatory and competitive procurement projects. In July 2013, I was promoted to the position of Consultant. As a Consultant, I have performed detailed technical analyses and

research to support regulatory projects including expert testimony, and briefing assistance covering various regulatory issues. At BAI, I have been involved with several regulated projects for electric, natural gas and water and wastewater utilities, as well as competitive procurement of electric power and gas supply. My regulatory filing tasks have included measuring the cost of capital, capital structure evaluations, assessing financial integrity, merger and acquisition related issues, risk management related issues, depreciation rate studies, other revenue requirement issues and wholesale market and retail regulated power price forecasts. Since 2011, I have been working with BAI witnesses on utility rate of return filings. Specifically, I have assisted BAI witnesses in analyzing rate of return studies, drafting discovery requests and analyzing responses, drafting rate of return testimony and exhibits and assisting with the review of the briefs.

BAI was formed in April 1995. BAI and its predecessor firm have participated in more than 700 regulatory proceedings in 40 states and Canada.

BAI provides consulting services in the economic, technical, accounting, and financial aspects of public utility rates and in the acquisition of utility and energy services through RFPs and negotiations, in both regulated and unregulated markets. Our clients include large industrial and institutional customers, some utilities and, on occasion, state regulatory agencies. We also prepare special studies and reports, forecasts, surveys and siting studies, and present seminars on utility-related issues.

In general, we are engaged in energy and regulatory consulting, economic analysis and contract negotiation. In addition to our main office in St. Louis, the firm also has branch offices in Phoenix, Arizona and Corpus Christi, Texas.

Q HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?

A Yes. I have sponsored testimony on cost of capital before state regulatory commissions including: Michigan, Arkansas, and Kansas.

Q PLEASE DESCRIBE ANY PROFESSIONAL REGISTRATIONS OR ORGANIZATIONS TO WHICH YOU BELONG.

A I earned the Chartered Financial Analyst ("CFA") designation from the CFA Institute. The CFA charter was awarded after successfully completing three examinations which covered the subject areas of financial accounting and reporting analysis, corporate finance, economics, fixed income and equity valuation, derivatives, alternative investments, risk management, and professional and ethical conduct. I am a member of the CFA Institute and the CFA Society of St. Louis.

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Consumers Energy

Breakdown of National Fuel Gas' Reported Business Segments

Description	Utility Segment $	Total Company $	Utility Segment %	Total Company %
2015				
Revenue From External Customers	$ 700,761	$ 1,760,913	39.8%	60.2%
Interest Expense	$ 28,176	$ 99,471	28.3%	71.7%
Depreciation, Depletion, Amortization	$ 45,616	$ 336,158	13.6%	86.4%
Income Tax Expense	$ 33,143	$ (319,136)	NM	NM
Impairment of Oil & Gas Producing Properties	$ -	$ 1,126,257	0.0%	100.0%
Net Income	$ 63,271	$ (379,427)	NM	NM
Capital Expenditures - Long Lived Assets	$ 94,371	$ 1,000,509	9.4%	90.6%
Assets	$ 1,960,158	$ 6,702,139	29.2%	70.8%
2014				
Revenue From External Customers	$ 831,156	$ 2,113,081	39.3%	60.7%
Interest Expense	$ 27,693	$ 94,277	29.4%	70.6%
Depreciation, Depletion, Amortization	$ 43,594	$ 383,781	11.4%	88.6%
Income Tax Expense	$ 33,918	$ 189,614	17.9%	82.1%
Net Income	$ 64,059	$ 299,413	21.4%	78.6%
Capital Expenditures - Long Lived Assets	$ 88,810	$ 969,907	9.2%	90.8%
Assets	$ 1,862,850	$ 6,728,040	27.7%	72.3%

Source: National Fuel Gas Company, SEC 10-K, Year Ended September 30, 2015, page 114.

Consumers Energy

Analysis of National Fuel Gas by Segment

EBITDA Contribution by Segmen

	2014	2015	
Reporte	%	$	%
Explora	56.6%	$ 422	50.1%
Gatheri	6.7%	$ 69	8.2%
Pipeline	19.5%	$ 188	22.3%
Utility	**17.3%**	**$ 164**	**19.5%**
Energy	0.0%	$ 0	0.0%
Total Company		$ 843	

Capital Expenditures by Segment

	2014	2015		2016E	
Reporte	%	$	%	$	%
Explora	62.1%	$ 557	55.7%	$ 450	35.7%
Gatheri	14.2%	$ 118	11.8%	$ 150	11.9%
Pipeline	14.4%	$ 230	23.0%	$ 550	43.6%
Utility	**9.2%**	**$ 94**	**9.4%**	**$ 110**	**8.7%**
Energy	0.0%	$ 0	0.0%	$ 0	0.0%
Total Company		$ 1,001		$ 1,260	

Source: National Fuel Gas Company, Investor Prese

Consumers Energy

Variations of the CAPM

Line	Company	Implied Raw Beta[1]	Corrected ECAPM Adjusted Beta[1]	Value Line Adjusted Beta[2]	Mr. Rao's Adjusted Beta[1]	Mr. Rao's Market Risk Premium[2]	Risk Free Rate[2]	CAPM Results: Implied Raw Beta	CAPM Results: Corrected ECAPM Beta	CAPM Results: Value Line Adjusted Beta	CAPM Results: Mr. Rao's Adjusted Beta
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	AGL Resources	0.67	0.75	0.80	0.84	7.00%	3.62%	8.32%	8.90%	9.22%	9.52%
2	Atmos Energy Corp.	0.75	0.81	0.85	0.88	7.00%	3.62%	8.84%	9.29%	9.57%	9.80%
3	National Fuel Gas	1.19	1.15	1.15	1.12	7.00%	3.62%	11.98%	11.64%	11.67%	11.44%
4	Northwest National Gas	0.52	0.64	0.70	0.76	7.00%	3.62%	7.28%	8.11%	8.52%	8.97%
5	Piedmont National Gas	0.67	0.75	0.80	0.84	7.00%	3.62%	8.32%	8.90%	9.22%	9.52%
6	Questar Corporation	0.67	0.75	0.80	0.84	7.00%	3.62%	8.32%	8.90%	9.22%	9.52%
7	South Jersey Industries	0.75	0.81	0.85	0.88	7.00%	3.62%	8.84%	9.29%	9.57%	9.80%
8	Southwest Gas Corporation	0.75	0.81	0.85	0.88	7.00%	3.62%	8.84%	9.29%	9.57%	9.80%
9	WGL Holdings	0.67	0.75	0.80	0.84	7.00%	3.62%	8.32%	8.90%	9.22%	9.52%
10	**Average (Excluding NFG)**	**0.68**	**0.76**	**0.81**	**0.85**			**8.39%**	**8.95%**	**9.26%**	**9.56%**
11	**Average**	**0.74**	**0.80**	**0.84**	**0.88**			**8.79%**	**9.24%**	**9.53%**	**9.77%**

Source & Note:
[1] Exhibit AB-5, page 3.
[2] Exhibit A-10 (DVR-1), page 4.

Consumers Energy

Variations of the CAPM

Line	Company	Implied Raw Beta[1]	Corrected ECAPM Adjusted Beta[1]	Value Line Adjusted Beta[2]	Mr. Rao's Adjusted Beta[1]	Mr. Rao's Market Risk Premium[2]	Risk Free Rate[2,a]	CAPM Results: Implied Raw Beta	CAPM Results: Corrected ECAPM Beta	CAPM Results: Value Line Adjusted Beta	CAPM Results: Mr. Rao's Adjusted Beta
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	AGL Resources	0.67	0.75	0.80	0.84	7.00%	5.07%	9.77%	10.35%	10.67%	10.97%
2	Atmos Energy Corp.	0.75	0.81	0.85	0.88	7.00%	5.07%	10.29%	10.74%	11.02%	11.25%
3	National Fuel Gas	1.19	1.15	1.15	1.12	7.00%	5.07%	13.43%	13.09%	13.12%	12.89%
4	Northwest National Gas	0.52	0.64	0.70	0.76	7.00%	5.07%	8.73%	9.56%	9.97%	10.42%
5	Piedmont National Gas	0.67	0.75	0.80	0.84	7.00%	5.07%	9.77%	10.35%	10.67%	10.97%
6	Questar Corporation	0.67	0.75	0.80	0.84	7.00%	5.07%	9.77%	10.35%	10.67%	10.97%
7	South Jersey Industries	0.75	0.81	0.85	0.88	7.00%	5.07%	10.29%	10.74%	11.02%	11.25%
8	Southwest Gas Corporation	0.75	0.81	0.85	0.88	7.00%	5.07%	10.29%	10.74%	11.02%	11.25%
9	WGL Holdings	0.67	0.75	0.80	0.84	7.00%	5.07%	9.77%	10.35%	10.67%	10.97%
10	**Average (Excluding NFG)**	**0.68**	**0.76**	**0.81**	**0.85**			**9.84%**	**10.40%**	**10.71%**	**11.01%**
11	**Average**	**0.74**	**0.80**	**0.84**	**0.88**			**10.24%**	**10.69%**	**10.98%**	**11.22%**

Source & Note:
[1] Exhibit AB-2, page 3.
[2] Exhibit A-10 (DVR-1), page 4.

[a] The use of Mr. Rao's risk-free rate of 5.07% on this schedule does not imply my acceptance of it. Rather, this is to illustrate his misuse of adjusted betas to develop an ECAPM analysis.

Consumers Energy

Beta Calculations

Line	Company	Value Line Adjusted Beta[1] (1)	Value Line's Adjustment to Market Beta (2)	Value Line's Adjustment to Company Beta (3)	Implied Raw Beta [a] (4) = [(1) - (2)] / (3)
1	AGL Resources	0.80	0.35	0.67	0.67
2	Atmos Energy Corp.	0.85	0.35	0.67	0.75
3	National Fuel Gas	1.15	0.35	0.67	1.19
4	Northwest National Gas	0.70	0.35	0.67	0.52
5	Piedmont National Gas	0.80	0.35	0.67	0.67
6	Questar Corporation	0.80	0.35	0.67	0.67
7	South Jersey Industries	0.85	0.35	0.67	0.75
8	Southwest Gas Corporation	0.85	0.35	0.67	0.75
9	WGL Holdings	0.80	0.35	0.67	0.67
10	**Average**	**0.84**			**0.74**

Line	Company	Implied Raw Beta (1)	ECAPM Adjustment to Market Beta (2)	ECAPM Adjustment to Company Beta (3)	Corrected ECAPM Adjusted Beta (4) = (2) + (1)*(3)
11	AGL Resources	0.67	0.25	0.75	0.75
12	Atmos Energy Corp.	0.75	0.25	0.75	0.81
13	National Fuel Gas	1.19	0.25	0.75	1.15
14	Northwest National Gas	0.52	0.25	0.75	0.64
15	Piedmont National Gas	0.67	0.25	0.75	0.75
16	Questar Corporation	0.67	0.25	0.75	0.75
17	South Jersey Industries	0.75	0.25	0.75	0.81
18	Southwest Gas Corporation	0.75	0.25	0.75	0.81
19	WGL Holdings	0.67	0.25	0.75	0.75
20	**Average**	**0.74**			**0.80**

Line	Company	Value Line Adjusted Beta (1)	Mr. Rao's Adjustment to Market Beta (2)	Mr. Rao's Adjustment to Company Beta (3)	Mr. Rao's Adjusted Adjusted Beta (4) = (2) + (1)*(3)
21	AGL Resources	0.80	0.22	0.78	0.84
22	Atmos Energy Corp.	0.85	0.22	0.78	0.88
23	National Fuel Gas	1.15	0.22	0.78	1.12
24	Northwest National Gas	0.70	0.22	0.78	0.76
25	Piedmont National Gas	0.80	0.22	0.78	0.84
26	Questar Corporation	0.80	0.22	0.78	0.84
27	South Jersey Industries	0.85	0.22	0.78	0.88
28	Southwest Gas Corporation	0.85	0.22	0.78	0.88
29	WGL Holdings	0.80	0.22	0.78	0.84
30	**Average**	**0.84**			**0.88**

Source & Notes:

[1] Exhibit A-10 (DVR-1), page 4.

[a] Value Line's adjusted beta is calculated by adjusting a company's raw beta by:
Adjusted *Bi* =0.35 + .67**Bi.*
This can be rewritten as: *Bi* = [Adjusted *Bi* - .35] / .67
where *Bi* = Company's Raw Beta.

Consumers Energy

Return on Equity Comparison

Year Requested	Case No.	ROE Requested %	ROE Authorized %	Industry Average ROE %	Difference Above Industry Average Requested %	Difference Above Industry Average Authorized %
2003	U-13730	13.50	NA	10.99	2.51	NA
2005	U-14547	12.00	11.00	10.46	1.54	0.54
2007	U-15190	11.25	NA	10.24	1.01	NA
2008	U-15506	11.00	NA	10.37	0.63	NA
2009	U-15986	11.00	10.55	10.19	0.81	0.36
2010	U-16418	11.00	10.50	10.08	0.92	0.42
2011	U-16855	10.50	10.30	9.92	0.58	0.38
2013	U-17197	10.50	NA	9.68	0.82	NA
2014	U-17643	10.70	10.30	9.78	0.92	0.52
2015	U-17882	10.70		9.49	1.21	
Average					**1.10**	**0.44**

Source:
SNL Financial, downloaded on November 25, 2015.