**BEFORE THE**

**FLORIDA PUBLIC SERVICE COMMISSION**

**DOCKET NO. 20230023-GU**

**IN RE: PETITION FOR RATE INCREASE**

**BY PEOPLES GAS SYSTEM, INC.**

**PREPARED DIRECT TESTIMONY AND EXHIBITS**

**OF**

**GREGG THERRIEN**

**ON BEHALF OF**

**PEOPLES GAS SYSTEM, INC.**

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OF

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**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

**PREPARED DIRECT TESTIMONY**

**OF**

**GREGG THERRIEN**

**ON BEHALF OF PEOPLES GAS SYSTEM, INC.**

# INTRODUCTION

**Q.** Please state your name, address, occupation and employer.

**A.** My name is Gregg Therrien. My business address is 293 Boston Post Road West, Suite 500, Marlborough Massachusetts. I am employed by Concentric Energy Advisors, Inc. (“Concentric”) as a Vice President.

**Q.** Please describe your duties and responsibilities in that position.

**A.** Concentric is a financial and economic consulting group, specializing in energy. My duties and responsibilities include leading and/or participating in energy client projects, including regulated utility rate proceedings such as that being litigated in this case. My specific areas of expertise include allocated cost of service, rate design, and project financial analysis. I have provided expert testimony in several utility rate proceedings in the United States.

**Q.** Please provide a brief outline of your educational background and business experience.

**A.** I have an undergraduate degree in Finance from Bryant University and a Masters in Business Administration from the University of Connecticut. My work experience, education, affiliations, and other pertinent information are included in Document No. 14 of Exhibit No. GT-1.

**Q.** What are the purposes of your prepared direct testimony in this proceeding?

**A.** The purpose of my testimony is to support Peoples Gas System, Inc.’s (“Peoples” or the “company”) proposed rate design. This support includes the creation of an Allocated Cost of Service Study(“ACOSS”); rate design and associated revenue proofs; and bill frequencies and bill impacts by rate class. I also am sponsoring several Minimum Filing Requirements (“MFR”) as part of my direct testimony.

**Q.** Did you prepare any exhibits in support of your prepared direct testimony?

**A.** Yes. Exhibit No. GT-1 was prepared under my direction and supervision. My Exhibit consists of the following documents:

 Document No. 1 Sponsored Or Co-Sponsored Minimum Filing Requirements

 Document No. 2 Endnotes For The Prepared Direct Testimony of Gregg Therrien

 Document No. 3 Rate Classes In The ACOSS

 Document No. 4 Customer Expense Allocations

 Document No. 5 Rate of Return By Rate Class (Present Rates)

 Document No. 6 Class Rate Changes To Achieve Equalized ROR At Proposed Rates

 Document No. 7 Peoples’ Cast Iron Bare Steel Rider Roll-In

 Document No. 8 Proposed Residential Rate Reclassification Bands

 Document No. 9 Class Distribution Revenues At Present And Proposed Rates

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 Document No. 13 Comparison Of Existing Customer Charges And Customer-Related Costs By Class

 Document No. 14 Curriculum Vitae of Gregg Therrien

# the PROCESS to develop utility rates

**Q.** What over-arching objectives guide utility rate development?

**A.** The principle of “cost-causation” is an over-arching principle followed in the utility industry. Cost-causation is the notion that those customers that cause a specific cost to be incurred should bear the responsibility for paying for those costs. Stated differently, a cost-causation approach seeks to minimize cross-subsidization between utility service classes (e.g., between residential and commercial customers) as well as within a customer class (i.e., seek to avoid inter-class subsidies, such as inappropriate cost collection from smaller or larger customers within a class).

**Q.** What tools are available to help equitably assign costs to customer classes and design utility rates?

**A.** Tools used to assist in utility rate setting include an ACOSS and bill impacts. The ACOSS is a detailed cost study that uses direct cost assignment to the appropriate customer class where possible, then a traditional method of spreading the remaining common costs of the system equitably among the classes. This process is described in detail in Section III below and is a helpful tool in establishing class target revenues. Bill frequency analysis helps dissect customer usage patterns within a class. This is particularly useful when designing rate availability break points (annual bill frequencies) or tiered usage rates (monthly bill frequency). The resulting rate strata can be used to apply bill impact analysis, which is the process of comparing existing rates to proposed rates at varying customer usage levels.

**Q.** At a high level, how are utility rates established?

**A.** Utility rates are established through a combination of “art” and “science”. The “science” aspect of the rate setting process involves the tools described above, primarily through interrogation of the final ACOSS results. The “art” of rate setting is accomplished in the process of rate design, where reasonable judgment is applied to develop unit rates (customer, commodity and/or capacity-based). The rate design process necessarily must result in rates that collect the overall revenue requirement of the company, as allowed by the regulator. Utility ratemaking is an iterative process, which starts with an allocation of total revenue requirements as depicted in Figure 1 below.

**Figure 1: Iterative ratemaking process**



# Allocated Cost of Service Study

**Q.** What is the purpose of an ACOSS?

**A.** The purpose of the ACOSS is to determine the cost responsibility of a company’s customer rate classes based on cost-causation principles. Although some costs can be directly attributable to a specific rate class, the nature of utility service requires common system costs to be allocated based on how the costs are incurred and which customer classes benefit, and to what degree those classes should have that cost responsibility. An allocated study utilizes allocation factors developed from special studies. Such studies may be as simple as spreading costs based on customer counts or throughput while other studies require operational data and calculations to allocate the cost among the classes. For example, the cost of meters and services are examined and allocated to the classes based on the cost of meters and services used in each class. Once completed, the ACOSS’ identification of the costs caused by each class provides guidance for allocating the revenue requirement to the rate classes. Further, the ACOSS provides guidance for designing rates based on how costs are functionalized (described below).

**Q.** Please describe the process used in performing an ACOSS.

**A.** An ACOSS is generally described as a three-step process including “functionalization,” “classification,” and “allocation” to the customer classes.

**Q.** What is “functionalization”?

**A.** In the functionalization step, the company’s plant investment costs and operating expenses are categorized by the operational functions with which they are associated, e.g., gathering, storage, transmission, distribution, and customer service. Generally, a company’s system of accountsi (See endnotes in Document No. 2 of the exhibit to my direct testimony) provides the data in a fashion which facilitates this step.

**Q.** What is “classification?”

**A.** The second step is classification, where the functional cost elements are classified by the factor of utilization most closely matching cost causation, e.g., customer, capacity, or commodity (volumetric).

Customer costs are a function of the number of customers served and continue to be incurred irrespective of the customer’s consumption. Customer costs include capital costs associated with service lines, meters, regulators, and associated appurtenances. Other customer costs include the operating costs related to meter reading; customer service (e.g., call center); billing; and credit and collections.

Capacity costs are those that are incurred based on the customer’s peak load requirements. Capacity costs include plant investments such as distribution mains, gate stations, and localized distribution facilities. The costs associated with these investments (return of and return on the invested capital and associated operating costs, such as ongoing maintenance) are classified as capacity consistent with previous cost of service studies submitted. Capacity costs are fixed in nature, and do not vary with the number of customers or the amount of throughput.

Commodity costs are those costs that change in relation to the quantity of gas used by the customers. The largest variable cost is the cost of gas supply, which is recovered through the Purchased Gas Adjustment Cost Recovery Clause rather than through base rates. No distribution costs are classified as variable.

**Q.** Are there any other costs classified in the ACOSS?

**A.** Yes. The Florida Public Service Commission’s (the “Commission”) assessment fee is classified as “revenue” in the ACOSS.

**Q.** Please describe the cost “allocation” step.

**A.** The third and final step in an ACOSS is the allocation of the functionalized and classified costs to the various customer classes. This is accomplished through direct assignment and the use of external and internal allocation factors loaded into the ACOSS. Direct assignment relates to the specific identification and isolation of plant and/or expenses that are incurred exclusively to serve a specific customer or customer class. For example, a very large customer may have dedicated distribution assets such as a large diameter service and high-capacity rotary meter. External allocation factors, e.g., volumes, number of customers, or peak usage, are obtained from a company’s records. Internal factors are developed from previously allocated costs within the study, e.g., using allocated plant costs to allocate depreciation expenses.

**Q.** What customer classes are utilized in your ACOSS?

**A.** The customer classes used for the ACOSS performed for Peoples are listed in Document No. 3 of the exhibit to my direct testimony.

**Q.** Describe the basic steps used in the ACOSS.

**A.** The ACOSS follows the same three-step general process described earlier in this testimony. The functionalization, classification, and allocation factor assignments are shown on MFR Schedule H-2.

**Q.** Please describe the functionalization step used in the ACOSS.

**A.** The ACOSS prepared here has three primary functions: Production, Distribution, and Customer Service. The assignment of plant and expenses to individual functions follows the FERC groupings of accounts described earlier. The indirect plant accounts (i.e., General and Intangible) are assigned to functions using internal allocators based on externally allocated plant accounts.

**Q.** Is the proposed ACOSS methodology consistent with industry practices?

**A.** Yes. The development of the ACOSS presented here is a typical approach, used by many gas utilities across the country.

**Q.** Please describe the classification process in the ACOSS.

**A.** This step in the ACOSS process assigns costs to capacity, customer, and commodity cost classifications. Most of the costs in the ACOSS are functionalized as distribution-related and are further classified as either capacity or customer related. The proposed ACOSS classifies distribution mains, the largest cost to be allocated in the study, as 100 percent capacity-related, consistent with the company’s Commission approved ACOSS in Docket Nos. 20080318-GU and 20200051-GU.

Customer-related costs include the return of and return on distribution services and meters and the associated operating and maintenance expenses. All cost items functionalized as customer service are classified as being customer related. Some of the cost items that fall into this category are the costs associated with meters, services, meter reading, billing, and customer services. Lastly, no costs are classified as commodity, primarily because the ACOSS does not include gas commodity costs (FERC Account 804).

**Q.** How was the allocation process accomplished in your ACOSS?

**A.** The next step in the ACOSS was to allocate the functionalized and classified costs to the various customer classes.

Where possible, customer-specific investments are utilized to allocate rate base investments. The company’s investment in mains is allocated on a peak and average basis consistent with studies performed in prior Peoples rate proceedings.ii

**Q.** How are other functionalized costs allocated in the ACOSS?

**A.** Functionalized costs for meters, services and regulators are shown in MFR Schedule E-7.

**Q.** How did you allocate expenses to the various classes?

**A.** Expenses related to distribution were generally classified using the same allocation factor as the corresponding plant items. For example, “Account 878 – Meter and house regulator expenses” were classified using the same allocation factor used to allocate meter plant. “Account 874 – Mains and services expenses” were classified using an internally developed allocator that tracks how the mains and services plant is classified to the various customer classes.

Customer-related expenses are classified as shown in Document No. 4 of the exhibit to my direct testimony.

Administrative and General Expenses (“A&G”) were classified using internally developed allocators based on Operating and Maintenance Expenses excluding A&G. Expenses related to Maintenance of General Plant were classified on the same basis as General Plant.

**Q.** Please describe the results of your ACOSS with respect to the rate of return at current rates.

**A.** MFR Schedule H-1 provides a detailed summary of the ACOSS results. This schedule summarizes the current revenues by class, the current rate of return by class, proposed revenue requirement by class, functionalized and classified rate base by class, functionalized and classified revenue requirement by class, and functionalized and classified unit cost by class. The current rate of return (“ROR”) by customer class is summarized in Document No. 5 of the exhibit to my direct testimony.

# Class Revenue Allocation

**Q.** How are the ACOSS results used in determining an equitable allocation of revenues among the customer classes?

**A.** The ACOSS results shown above indicate which customer classes are either providing a surplus of revenues to the system (i.e., having a class ROR ratio greater than 1.000) or are deficient in covering their class allocated costs (i.e., a class ROR ratio less than 1.000). Using the results of the ACOSS we can determine the amount of revenue surplus or shortfall each class contributes to the total system pro forma distribution revenue requirements by solving for equalized class ROR with the system average at proposed revenues. The required distribution revenue increase (or decrease) to achieve equalized ROR and the associated class increase or decrease percentages are shown in Document No. 6 of the exhibit to my direct testimony.

**Q.** Is the company proposing to increase the rates such that each class produces the system average required rate of return?

**A.** No, Peoples is not proposing to change rates such that each class produces the system average required rate of return. The ACOSS produces results that are instructive in revenue allocation and rate design but achieving equalized rates of return among the classes is often unattainable. As described in Section V below, there are multiple, and often competing, rate design goals that may hinder achieving equalized class rates of return.

**Q.** What are you recommending for the company’s proposed revenue allocation?

**A.** As described in Section II above, the final revenue allocation (and rate design) is the product of an iterative process whereby company proposals are intertwined with the results of the ACOSS, as well as other rate design considerations. The recommended allocation of the proposed revenue increase to base rates is shown in Document No. 11 of my exhibit to my direct testimony.

**Q.** Have the revenues from the Cast Iron/Bare Steel Replacement (“CI/BSR”) rider been reflected in the proposed revenue allocation and rates?

**A.** Yes. Exhibit GT-1 Document No. 7 details the roll-in of the CI/BSR revenues. Pro forma revenue requirements include these CI/BSR rolled-in revenues, and the pro forma proposed rates include recovery of these dollars. Residual CI/BSR revenue requirements for 2024 CI/BSR revenue requirements not included in base rates are also shown in the Document No. 7.

# Rate Design

**Q.** Are there general rate design principles acknowledged in the utility industry?

**A.** Yes. For many decades utility rate analysts have followed the general rate design principles developed by James C. Bonbright (and others). In his book, Principles of Public Utility Rates, he describes the principles of efficiency, simplicity, continuity of rates, fairness between rate classes, and corporate earnings stability.

**Q.** Please explain your understanding of these principles.

**A.** An efficient rate structure promotes economically justified use of a company’s sales and distribution services and discourages wasteful use. Rate design simplicity is achieved if the customers understand what they are being charged – the level of rates and the rate structure. Rate continuity requires that changes to the rate structure should not be abrupt and unexpected; gradual changes to the rate structure should allow customers to modify their usage patterns. A rate design is fair if no customer class pays more than the costs to serve that class. A rate design provides for earnings stability if the company has a reasonable opportunity to earn its allowed rate of return during the time that the rates are in effect.

**Q.** Were these principles followed in the proposed revenue allocation and rate design?

**A.** Yes. It is important to understand that these principles often conflict with one another. Together, they offer a check and balance as to the reasonableness of designed rates. Under some circumstances one or more of these principles may necessarily be violated; however, the proposed revenue allocations and rate design presented herein do not materially stray from any of the principles.

**Q.** Is the company proposing any tariff or rate design changes?

**A.** Yes, the company is proposing two modest changes.First,the company is proposing tariff changes to clarify and improve the annual residential rate reclassification review. Customers qualify for one of the company’s three separate residential rates (RS-1, RS-2 and RS-3) based on annual consumption. Each year, customer usage is reviewed to determine if a customer should be reclassified to a different billing class based on their previous year’s usage. This practice introduced unintended consequences, which have led to administrative inefficiencies, some customer confusion, and the potential for under-or-over-recovery of allowed revenues to the company. This modification is addressed further below and in the prepared direct testimony of company witness Bramley.

Second, the company is proposing a change to Residential and Commercial Generator rates to eliminate the initial monthly usage allowances for each tariff (residential and commercial).iii

**Q.** Were other structural rate design changes considered?

**A.** After discussions regarding the six firm standard commercial and industrial rates (Small General Service, GS-1, GS-2, GS-3, GS-4, and GS-5), the company decided that each rate contained sufficient diversity in customer load profile as to warrant continuation of the current rate design structure and tariff construct.

**Q.** Please describe the company’s proposed modification to the residential annual volume review.

**A.** The company proposes to apply a 10 percent band during the annual review process to avoid unnecessary rate reclassifications. Additionally, the company is proposing clarifying language in its tariffs to describe the change in the annual volume review process and when a customer may be reclassified. This clarifying language is contained in the proposed tariff sheet 7.201-1 and described in the testimony of company witness Bramley.

**Q.** Why is the company proposing to make this change to the annual volume review?

**A**.The company’s annual volume review practice was developed after introducing the three residential billing classes in the 2008 rate proceeding. The use of only a 12-month period to evaluate customer usage has caused significant fluctuations in customers across the billing classes. Influences like the COVID Pandemic and weather have caused unintended results that have created complexities for customers and revenue instability for Peoples. The proposed changes to the company’s tariff will address this issue.

**Q.** Please describe the proposed application of a 10 percent band to the annual volume review.

**A.** Existing customers that exceed the +/- 10 percent band will be reclassified to the correct rate. If an existing customer falls within the band, but does not exceed it, their account will be “flagged” for evaluation in the next annual rate volume review. If, in the subsequent year, their account continues to fall within the band in the same direction, then the account will be reclassified to the appropriate billing class.

**Q.** Please illustrate the proposed annual rate volume review bands.

**A.** The proposed bands are list in Document No. 8 of the exhibit to my direct testimony.

**Q.** How was the 10 percent band determined?

**A.** Statistical analysis of average annual residential use per customer over the past five years shows that the peak year (2021) was 5.9 percent above the average. This variance likely represents the weather component of variance, which suggests a tighter bandwidth (e.g., 5 percent) would potentially reclassify some customers solely based on weather rather than changes in normal usage (e.g., adding an appliance). Similarly, the class average use per customer exhibited year-over-year changes ranging from -5.1 percent to 7.9 percent, again suggesting that a tighter band may result in unnecessary reclassifications. Lastly, the company compared the average annual residential use per customer to the weather-normalized therms used in the 2024 budget (test year). The variance between the warmest year and the coolest year was 10 percent, or 19.4 therms.

**Q.** How will this change benefit customers?

**A.** The proposed changes to the annual volume review process will promote rate stability and reduce (or avoid) customer confusion. The implementation of a proposed annual usage band should significantly reduce the number of customers reclassified to different rates because of the annual volume review.

**Q.** Describe the company’s proposed change to the Residential and Commercial Generator rates.

**A.** As mentioned above, the company proposes to eliminate the provision granting no distribution charge for the first metered therms for residential and commercial generator customers. The original rate design concept allowed emergency generator customers to conduct monthly usage tests that would consume a minimal amount of gas. This allowance was tied to a higher monthly fixed customer charge compared to RS-1 and GS-1. Customer usage data suggests these customers are consuming gas behind these dedicated meters beyond emergency generator use. The company and propose to eliminate the initial allowance and bill all metered consumption.

**Q.** What is the impact of this rate proposal?

**A.** The impact of this change is minimal and is best observed through the bill impact exhibits provided in MFR Schedule E-5. The elimination of the zero-priced first consumption tier must be gauged in the context of a customer’s total bill at varying consumption levels. The proposed single-tier rate design, coupled with the proposed monthly customer charge, will generate pro forma revenues, which can then be compared to current revenues at the class level, and, using bill impacts (See MFR Schedule E-5), at the customer level.

**Q.** Are there any other proposed structural rate design changes?

**A.** No. The rate structures remain the same for all classes – that is, a two-part fixed/volumetric design. Only the value of each billing component changes to develop a set of rates that, collectively, will recover the proposed revenue requirement.

**Q.** When determining each rate component did you consider the resulting revenue allocation among the classes at proposed rates?

**A.** Yes. As described in Section II above, establishing rates is an iterative process. My initial rate design runs simply increased the fixed and variable rates equal to the overall pro forma distribution revenue increase. When the resultant class revenues were input into the ACOSS model, it produced class ROR ratios equal to present rates. Given the rate design goal of cost causation, I then increased or decreased these initial proposed fixed and variable rates to produce revenues that would move each class closer to equalized ROR. Document No. 12 of the exhibit to my direct testimony compares revenues at present and proposed rates. Additionally, a comparison of existing customer charges and customer-related cost by class in shown in Document No. 13 of the exhibit to my direct testimony.

**Q.** What are the proposed class revenue allocations?

**A.** The proposed class revenue allocations are shown in Document No. 9 of the exhibit to my direct testimony.

**Q.** Do the proposed revenues attain equalized rates of return?

**A.** No, but significant movement towards equalized ROR was achieved. This is demonstrated in Document No. 10 of the exhibit to my direct testimony.

 Detailed comparisons of revenues, rates of return, and ratios are also provided in MFR Schedule H-1.

# Bill Impacts

**Q.** Did you conduct bill impacts as part of your iterative rate design process?

**A.** Yes. Bill impacts are shown in MFR Schedule E-5.

# Revenue Proof

**Q.** What is meant by “Revenue Proof”?

**A.** Revenue Proof is the process of ensuring that pro forma rates, when multiplied by pro forma billing determinants, yield the proposed overall revenue requirement. Again, the iterative process of rate setting necessitates revisiting proposed rate components to achieve the total result. It often takes several iterations of rate choices before the balance of class ROR, inter-class bill impacts, and overall revenue requirement is achieved. MFR Schedule H-1 provides summary schedules that represent the company’s revenue proof at proposed rates.

# Proposed Tariffs

**Q.** Are you sponsoring tariffs as part of your direct testimony?

**A.** No, but I did assist in the company’s drafting of certain tariff provisions, as well as verified the proposed tariff sheets reflecting the proposed final rate design and customer rates. Please see the testimony of company witness Bramley for a detailed discussion of these tariffs.

# Summary

**Q.** Please summarize your prepared direct testimony.

**A.** The rates proposed herein reflect cost causation principles of rate design. Further, these rates were developed in collaboration with the company’s management and reflect general rate design principles of efficiency, simplicity, continuity of rates, fairness between rate classes, and corporate earnings stability. The proposed rates recover the company’s proposed revenue requirements on a prospective basis.

**Q.** Does this conclude your prepared direct testimony?

**A.** Yes.

# EXHIBIT

**OF**

**GREGG THERRIEN**

**ON BEHALF OF PEOPLES GAS SYSTEM, INC.**

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**Endnotes**

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i Often referred to as “FERC Account-level detail”, as prescribed in Subchapter F, Part 201 – Uniform System of Accounts Prescribed for Natural Gas Companies Subject to the Provisions of the Natural Gas Act.

ii See Direct Testimony and Exhibits of Dan Yardley, August 11, 2008, Docket No. 080318-GU, pp. 19-20; Direct Testimony of Dan Yardley, filed June 8, 2020 in Docket No. 20200051-GU, pp. 18.

iii The first 20 therms is priced at no charge for residential generator customers, and the first 40 therms for commercial generator customers.