BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Peoples Natural Gas Company LLC

Docket No. R-2023-3044549

Volume 11

Direct Testimony and Exhibits of Ralph Zarumba
Statement No. 15

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY	:	
COMMISSION	:	
	:	
v.	:	Docket No. R-2023-3044549
	:	
PEOPLES NATURAL GAS COMPANY LLC	:	

PREPARED DIRECT TESTIMONY OF

RALPH N. ZARUMBA,

BLACK & VEATCH MANAGEMENT CONSULTING, LLC

DATE SERVED: December 29, 2023

DATE ADMITTED: _____ Peoples Statement No. 15

I. Introduction and Qualifications

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Ralph Zarumba. My business address is 736 Central Street, Evanston, Illinois.

Q. BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?

A. I am a subcontractor to Black & Veatch Management Consulting, LLC ("Black & Veatch"). Prior to my retirement, I was a Managing Director at Black & Veatch leading the Natural Gas and Electricity Regulatory Practice.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. I received a Bachelor of Science in Economics from Illinois State University in Normal, IL, and a Master of Arts in Economics from DePaul University in Chicago, IL.

Q. PLEASE SUMMARIZE YOUR QUALIFICATIONS.

A. I have over thirty-eight (38) years of experience in the energy industry, primarily focusing on the fields of regulatory and economic consulting for regulated industries. My work experience, presentation of expert testimony, and other industry-related activities are detailed in Appendix A.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PENNSYLVANIA PUBLIC UTILITIES COMMISSION ("PPUC") OR ANY OTHER REGULATORY AUTHORITY?

A. I have not presented testimony before the PPUC. However, I have presented testimony before several other regulatory authorities over the past 35 years. My expert testimony has dealt with various matters involving regulatory industries, including cost-of-service and pricing. A listing of my appearances in proceedings and expert reports is included in Appendix A.

Q. HAVE YOU PREVIOUSLY PREPARED COST-OF SERVICE-STUDIES AND RATE DESIGNS?

A. Over my utility consulting career, I have conducted numerous allocated and marginal cost-of-service studies for gas and electric utilities. I have also prepared or reviewed rate structures and pricing designs for numerous gas and electric utilities operating in North America and abroad.

Q. HAVE YOU TAUGHT AND LECTURED ON REGULATORY TOPICS IN ACADEMIC SETTINGS?

A. Yes. I have taught and lectured on cost-of-service and pricing at Michigan State University and the University of Missouri. I have also taught regulatory principles in various seminars

on behalf of the United States Agency of International Development (USAID) in various developing countries.

Q. ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

A. I am appearing on behalf of Peoples Natural Gas ("Peoples" or "the Company"). Specifically, the Company requested that I conducted a cost-of-service studies to determine the embedded costs of serving its customers and to develop its class revenue and rate design proposals.

I. Overview of Testimony

Q. PLEASE PROVIDE AN OVERVIEW OF YOUR TESTIMONY.

A. My testimony will discuss the cost-of-service and rate design issues in this proceeding. The specific issues which I will address will include:

- Testimony supporting the cost-of-service studies for the Peoples Natural Gas ("PNG") division, Peoples Gas ("PG") division and the combined Peoples entity;
- Testimony supporting the proposed rate designs for the combined Peoples entity;
- Support for several new rate designs proposed by the Company;
- Testimony supporting the estimated number of Heating Degree Days ("HDD") supporting the Company's revenue forecast; and
- Testimony supporting the proposed Weather Normalization Mechanism.

Q. PLEASE LIST THE FILING REQUIREMENTS THAT YOU ARE SPONSORING.

A. Peoples Exhibit RNZ-1 provides a listing of the filing requirements which I am responsible for in this proceeding.

Q. ARE YOU SPONSORING ANY OTHER EXHIBITS IN YOUR TESTIMONY?

A. Yes. I am sponsoring the following exhibits related to the Company's cost-of-service studies, class revenue requirement and rate design proposals:

- Peoples Exhibit RNZ-2: Minimum Customer Cost Analysis;
- Peoples Exhibit RNZ-3: Derivation of the Total Gathering Cost-of-Service;
- Peoples Exhibit RNZ-4: Proposed Class Revenue Apportionment;
- Peoples Exhibit RNZ-5: Proposed Rates; and
- Peoples Exhibit RNZ-6: Residential Monthly Bill Comparison.

A. Peoples Proposed Rate Classes

Q. PLEASE DESCRIBE THE REQUESTED COMBINATION OF TARIFFS THE COMPANY IS REQUESTING IN THIS PROCEEDING.

A. In this proceeding, the Company wishes to combine Peoples Natural Gas LLC and Peoples Natural Gas divisions into a single operating entity with a unified set of rates and tariffs. Currently, the two companies operate under separate tariffs. My exhibits detail the cost-of-service for the two separate entities and a rate design for the combined utility.

II. Theory of Allocated Cost-of-service Studies

Q. PLEASE STATE THE PURPOSE OF A COST-OF-SERVICE STUDY.

A. An allocated (sometimes referred to as embedded) cost-of-service study is an analysis of costs that assigns to each customer or rate class its proportionate share of the Company's total cost-of-service (i.e., the Company's total revenue requirement). The results of these studies can be utilized to determine the relative cost-of-service for each class and to help determine the individual class revenue requirements to be used in developing prospective rates for each class.

Q. ARE THERE CERTAIN GUIDING PRINCIPLES THAT SHOULD BE FOLLOWED WHEN PERFORMING A CLASS COST-OF-SERVICE STUDY?

A. Yes. First, the fundamental and underlying philosophy applicable to all cost studies pertains to the concept of cost causation for purposes of allocating costs to customer groups. Cost causation addresses the question, "Which customer or group of customers causes the utility to incur particular types of costs?" To answer this question, it is necessary to establish a link between a utility's customers and the costs incurred by the utility in serving those customers.

The essential element in selecting and developing a reasonable cost-of-service study allocation methodology is the establishment of relationships between customer requirements, load profiles, and usage characteristics on the one hand and the costs incurred by the Company in serving those requirements on the other hand. For example, providing

a customer with gas service during peak periods can have much different cost implications for the utility than service to a customer who requires off-peak gas service.

A natural gas distribution system is designed to meet three primary objectives:

- Extend distribution services to all customers entitled to be attached to the distribution system;
- Meet the aggregate peak design day capacity requirements of all customers entitled to service on the peak day; and
- Deliver volumes of natural gas to those customers either on a sales or transportation basis. There is generally a direct link between the manner in which costs are defined and their subsequent allocation.

Customer-related costs are incurred to attach a customer to the distribution system, meter any gas usage, and maintain the customer's account. Customer costs are a function of the number of customers served and continue to be incurred whether or not the customer consumes any gas. They may include capital costs associated with minimum size distribution mains, services, meters, regulators and customer service and accounting expenses.

Demand or capacity related costs are associated with plant that is designed, installed, and operated to meet maximum hourly or daily gas flow requirements, such as distribution mains, or more localized distribution facilities which are designed to satisfy individual customer maximum demands. Gas supply-related contracts also have a capacity-related component of cost relative to the Company's requirements for serving daily peak demands and the winter peaking season.

Commodity-related costs are those costs which vary with the throughput sold to or transported for customers. Costs related to gas supply are classified as commodity related to the extent they vary with the amount of gas volumes purchased by the Company for its sales service customers.

III. Peoples Cost-of-Service Studies

Q. PLEASE DESCRIBE THE PEOPLES COST-OF-SERVICE STUDIES.

A. The Peoples cost-of-service study is composed of three (3) separate studies:

- A study for Peoples Natural Gas Division;
- A study for Peoples Gas Division; and

A study of the combined divisions.

It should be noted that that the cost-of-service studies for Peoples Gas and Peoples Natural Gas, the legacy divisions, only captured the revenue deficiencies of those organizations.

Q. WHY WERE MULTIPLE STUDIES PERFORMED?

A. Given that the Company is proposing to combine the tariffs of multiple divisions in this proceeding, I felt that performing cost-of-service studies on the separate divisions and the combined entity would provide valuable information regarding the combination of the rates of the two companies and if changes in the rates were justified.

Q. ARE CHANGES TO THE OVERALL RATE DESIGNS JUSTIFIED BASED UPON THE COST-OF-SERVICE STUDIES?

A. The following changes to the rate designs are proposed:

- Combining the PG and PNG rates into a single rate design;
- The transition rates which were implemented in the previous case are no longer required and are being eliminated; and
- A new rate schedule is proposed splitting LGS into multiple categories based upon use of the transmission and distribution system.

Q. WHAT WAS THE SOURCE OF THE COST DATA ANALYZED IN PEOPLES' COST-OF-SERVICE STUDIES?

A. All cost-of-service data has been extracted from the Company's total cost-of-service (i.e., total revenue requirement) contained in this filing. Where more detailed information was required to perform various subsidiary analyses related to certain plant and expense elements, the data were derived from the historical books and records of the Company.

Q. WHAT CLASSES OF SERVICE WERE INCLUDED IN THE COMPANY'S COST-OF-SERVICE STUDIES?

A. The customer classes reflected in Peoples' cost-of-service studies are Residential Service (RS), Small General Service (SGS), Medium General Service (MGS), and Large General Service (LGS).

Q. DO THESE RATE CLASSES INCLUDE BOTH SALES AND TRANSPORTATION SERVICE CUSTOMERS?

A. Yes. These customer classes are configured as combined classes that include both sales service and transportation service customers. Therefore, the RS class includes residential customers served under Peoples' Rates RS, the SGS class includes small commercial and industrial customers served under Peoples' Rates SGS, GSS and GS-T, the MGS class includes medium-sized commercial and industrial customers served under Peoples' Rates MGS and GSL and GS-T, and the LGS class includes large commercial and industrial customers served under Peoples' Rates LGS, GSL, GST and GS-T. A gas utility's class cost-of-service study should recognize that sales service and transportation service customers both require delivery service to physically move gas on its gas system. For example, it costs a gas utility the same amount to have a service line and meter in place at a customer's premises, irrespective of whether the gas moving through the service line and meter is customer-owned gas transported by the utility, or gas it owns that is sold to the customer. Similarly, the volume of gas used by a customer during a peak period establishes the customer's contribution to the system peak. A gas utility's pipeline system does not need to be larger or smaller if the customer, instead of the utility, owns the gas as it moves through its gas system. Therefore, the allocation of distribution costs for sales service and transportation service for the same customer should be based on allocation factors that include both sales and transportation load characteristics.

Q. PLEASE EXPLAIN WHY THE COST-OF-SERVICE STUDIES YOU PREPARED DO NOT INCLUDE A RATE CLASS FOR GATHERING SERVICE.

A. Peoples' cost-of-service studies do not include a separate rate class for gathering service since Peoples is proposing that its gathering service rates be set on a negotiated basis using value of service considerations rather than cost-of-service as a guide. As such, a cost-of-service study for Peoples which includes a gathering service rate class would provide no value in determining the revenue and rate levels for gathering service to local producers that are reflective of the value-based considerations associated with producers' access to Peoples' gathering system.

Nevertheless, as I explain later in this testimony. I have determined the cost-of-service associated with Peoples' gathering system and compared that to the contributions by producers under present and proposed charges for informational purposes.

Q. WHAT STEPS DID YOU FOLLOW TO PERFORM THE COMPANY'S COST-OF-SERVICE STUDIES?

A. I followed three broad steps to perform the cost-of-service studies generally accepted in natural gas and electricity ratemaking in preparing allocated cost-of-service studies:

- functionalization;
- classification; and
- allocation.

Q. WHAT FUNCTIONS DOES THE COMPANY PROVIDE TO CUSTOMERS?

A. For Peoples, the functional cost categories associated with gas service include:

- Gas Supply;
- Gathering;
- Storage;
- Transmission; and
- Distribution.

I should note that the gas supply function simply reflects Peoples' gas supply costs and revenues presented and reviewed within Peoples' annual 1307(f) process. Since that function is addressed in a separate proceeding, we have excluded it from the cost-of-service study.

Q. WHAT COST CLASSIFICATIONS WERE ADOPTED FOR THE COST-OF-SERVICE STUDY?

A. The three cost classifications used in this study are:

- customer;
- demand or capacity; and
- commodity or energy.

Q. HOW WERE COSTS ALLOCATED?

A. Costs typically are allocated based on customer, demand, commodity, or revenue-related allocation factors.

Q. HOW ARE THE COST AND UTILITY RELATIONSHIPS YOU PREVIOUSLY DISCUSSED ESTABLISHED?

A. To establish these relationships, the cost analyst must analyze the Company's gas system design and operations, accounting records, and system and customer load data (e.g., annual and peak period gas consumption levels). From the results of those analyses, methods of direct assignment and "common" cost allocation methodologies can be chosen for all the utility's plant and expense elements.

Q. AS PART OF YOUR WORK, DID YOU REVIEW AND ANALYZE THE COMPANY'S GAS SYSTEM DESIGN AND OPERATIONS?

A. Yes. Since it is widely recognized that a utility's plant in service components provide the most direct link to a utility's gas service requirements, I initially focused my efforts on better understanding the nature and operation of the Company's gas system. This effort included review of the Company's gathering, storage, transmission, and distribution systems and the types and levels of costs incurred in connecting various sized customers to its distribution system.

Q. PLEASE DESCRIBE THE MOST IMPORTANT CONSIDERATIONS YOU RELIED UPON IN DETERMINING THE COST ALLOCATIONS METHODOLOGIES THAT WERE USED TO PERFORM THE COMPANY'S CLASS COST-OF-SERVICE STUDY?

A. As stated above, it is important to recognize the cost causative characteristics of the cost elements which are allocated within any class cost-of-service study. Additionally, the cost analyst needs to develop data in a form that is compatible with and supportive of rate design proposals. Of further concern is the availability of data for use in developing alternative cost allocation factors. In evaluating any cost allocation methodology, consideration should be given to:

- Recognition of cost causality;
- Results which are representative of the true costs of serving different types of customers;
- A sound rationale or theoretical basis;
- Stability of results over time;
- Logical consistency and completeness; and
- Ease of implementation.

B. Functionalization

Q. PLEASE DESCRIBE THE FUNCTIONALIZATION PROCESS ADOPTED IN YOUR COST-OF-SERVICE ANALYSIS.

A. The Peoples COS model functionalizes costs into five components. These components are:

- Gas Supply;
- Gathering;
- Storage;

- Transmission, and
- Distribution.

Each of the FERC account costs and revenues are either directly assigned to one of these functions or allocated to multiple functions. General Plant and Intangible plant are examples of types of costs that are allocated to multiple functions.

C. Classification

a. Classification of Distribution Mains

Q. WHAT APPROACH DID YOU ADOPT TO CLASSIFY DISTRIBUTION MAINS BETWEEN DEMAND AND CUSTOMER RELATED FACILITIES?

A. I used the Minimum System Approach. The Minimum System approach, which is the method utilized in the Company's previous cost studies, is intended to reflect the engineering considerations associated with installing distribution mains to serve gas customers. That is, the method utilizes actual installed investment units to determine the minimum distribution system rather than a statistical analysis based upon the investment characteristics of the entire distribution system.

Q. DO PROFESSIONAL REFERENCES EXIST WHICH SUPPORT THE USE OF THE MINIMUM SYSTEM APPROACHES?

A. Yes. Two of the more commonly accepted literary references relied upon when preparing embedded cost-of-service studies, (1) Electric Utility Cost Allocation Manual, by John J.

Doran et al, National Association of Regulatory Utility[1] (NARUC), and (2) Gas Rate Fundamentals, American Gas Association[2], both describe minimum system concepts and methods as an appropriate technique for determining the customer component of utility distribution facilities.

Q. WHAT SIZE DISTRIBUTION MAIN WAS ADOPTED IN YOUR MINIMUM SYSTEM APPROACH?

A. I adopted a 2-inch diameter distribution main in my minimum system study.

Q. DID YOU MAKE ANY ADJUSTMENT TO THE RESULTING CUSTOMER COST COMPONENT FOR DISTRIBUTION MAINS BASED ON THE USE OF THE MINIMUM SYSTEM APPROACH?

A. Yes. To recognize that the minimum sized distribution main (a 2-inch diameter main) also has some level of capacity carrying capability, an adjustment was made to the level of the customer cost component to exclude a portion of the costs of distribution mains from the customer cost classification category. Those excluded costs were classified as capacity related and treated in the same manner as other capacity-related costs for cost allocation purposes.

[1] https://pubs.naruc.org/pub/53A3986F-2354-D714-51BD-23412BCFEDFD

[2] https://webstore.ansi.org/preview-pages/AGA/preview_F00502.pdf

D. Allocation

a. Allocation of Demand Related Costs

Q. PLEASE DESCRIBE THE KEY ISSUES RELATED TO THE ALLOCATION DEMAND-RELATED COSTS WITHIN A GAS UTILITY'S COST-OF-SERVICE STUDY?

A. A complex part of the allocation process is the allocation of demand-related costs. Several approaches have been used to develop allocation factors for the demand components of costs. In fact, it is not unusual for more than one demand cost allocation methodology to be used in a cost-of-service study. Despite numerous methods to allocate demand costs, it is fair to say that three basic methodologies form the foundation for the allocation process. These three methodologies are:

- Peak Demand Allocations;
- Average and Excess Demand Allocations; and
- Non-Coincident Demand Allocations.

These demand allocation methodologies are discussed below.

Peak Demand Allocation is premised on the notion that investment in capacity is determined by the Company's peak load or peak loads. Under this methodology, demand-related costs are allocated to each customer class or group in proportion to the demand coincident with the system peak or peaks of that class or group. The Peak Demand Allocation process might focus on a single peak, such as the highest daily demand occurring during the test period. Other variations might include the average of several cold

days, or the expected contribution to the system peak on a design day. In some instances, it may be appropriate to determine the peak demand responsibility on an hourly basis rather than a daily basis where hourly requirements dictate a company's investment in distribution facilities.

The Average and Excess Demand Allocation methodology, also referred to as the "used and unused capacity" method, allocates demand related costs to the classes of service on the basis of system and class load factor characteristics. Specifically, the portion of utility facilities and related expenses required to service the average load is allocated on the basis of each class' average demand. The portion of these facilities is derived by multiplying the total demand related costs by the utility's system load factor. The remaining demand related costs are allocated to the classes based on each class' excess or unused demand (i.e., total class non-coincident demand minus average demand).

A more simplistic version of this methodology is the Peak and Average methodology. This cost methodology gives equivalent weight to peak demands and average demands. As is the case with the Average and Excess method, it has the effect of allocating a portion of the utility's demand-related costs on a commodity-related basis. The Non-Coincident Demand Allocation methodology recognizes that certain facilities, in particular distribution facilities, are designed to serve local peaks which may or may not be coincident with the system peak loads. Using this methodology, demand costs are allocated on the basis of each group's (rate class), maximum demand, irrespective of the time of the system peak.

Q. HOW HAVE DEMAND-RELATED COSTS BEEN ALLOCATED IN THE COMPANY'S COST-OF-SERVICE STUDY?

A. Peoples' cost-of-service studies use either a coincident peak demand or peak and average allocation factor, both derived on a design day basis, for allocating its capacity related costs to the various customer classes. Capacity costs for the Company consist of the capacity costs associated with city-gate facilities and the capacity portion of the Company's distribution system.

Q. WHY DOESN'T AVERAGE DEMAND (I.E., ANNUAL GAS THROUGHPUT VOLUMES DIVIDED BY 365) INFLUENCE THE OCCURRENCE OF DEMAND-RELATED COSTS?

A. By sizing plant investment for peak period demands, the gas utility can satisfy its service obligation throughout the year. If a gas utility's system was sized and installed to accommodate average gas demands, it would be unable to accommodate system peak demands. From a gas engineering perspective, a peak demand design criterion is always utilized when designing a gas distribution system to accommodate the gas demand requirements of the customers served by that system. As such, cost causation with respect to demand related costs is unrelated to average demand characteristics.

Additionally, use of average demand characteristics for the allocation of demand-related costs penalizes customers that exhibit efficient gas consumption characteristics (i.e., customers with high load factors) and encourages the inefficient use of the gas utility's system by customers with low load factors. Clearly, under-utilization of a gas utility's system is a result that it can hardly encourage, recognizing that higher system utilization will result in lower unit costs to all customers.

For the above-stated reasons, it is inappropriate to rely upon only a commodity-based allocation factor, as derived from annual gas throughput volume, for purposes of allocating demand related costs to a gas utility.

Q. WHY DID YOU CHOOSE TO UTILIZE THE COMPANY'S DESIGN DAY DEMAND RATHER THAN ITS ACTUAL PEAK DAY DEMAND AS A DEMAND ALLOCATOR?

A. Use of a gas utility's design day demand is superior to using its actual peak day demand, or a historical average of multiple peak day demands over time, for purposes of deriving demand allocation factors for a number of reasons. These include:

- A gas utility's system is designed, and consequently costs are incurred, to meet design day demand. In contrast, costs are not incurred on the basis of an average of peak demands;
- Design day demand is more consistent with the level of change in customer demands for gas during peak periods and is more closely related to the change in fixed plant investment over time; and
- Design day demand provides more stable cost allocation results over time.

Q. PLEASE EXPLAIN WHY THE COMPANY'S DESIGN DAY DEMAND BEST REFLECTS THE FACTORS THAT ACTUALLY CAUSE COSTS TO BE INCURRED?

A. The Company must consistently rely upon design day demand in the acquisition of its upstream gas supply-related resources and in the design of its own distribution facilities required to service its firm service customers. And perhaps more importantly, design day demand directly measures the gas demand requirements of the Company's firm service customers, which create the need for the Company to acquire resources, build facilities, and incur millions of dollars in fixed costs on an ongoing basis. In my opinion, there is no better way to capture the true cost causative factors of the Company's operations than to utilize its design peak day requirements within its cost-of-service study.

Q. WHAT LEVEL OF FIRM DEMAND REQUIREMENTS MUST THE COMPANY CONSIDER IN DESIGNING ITS GAS DISTRIBUTION SYSTEM TO DELIVER GAS UNDER ALL CIRCUMSTANCES?

A. Peoples designs its system, and has sufficient capacity, to serve the delivery or transportation requirements of all its sales and transportation service customers. Therefore, the demands of all customers will be treated on an equivalent basis for purposes of cost allocation based on peak demands.

Q. WHY IS THE USE OF DESIGN DAY DEMAND CLOSELY RELATED TO THE CHANGE IN THE COMPANY'S FIXED PLANT INVESTMENT OVER TIME?

A. The change in its design day demand serves as the primary input into the Company's ongoing decisions to install distribution system facilities to meet firm customer demands for gas delivery service.

Regarding plant investment for meeting growth, the construction cost estimates associated with connecting a new customer to the Company's gas distribution system are always based upon the capacity level necessary to meet each customer's peak hour demands. An appropriate proxy for the peak hour demands used in distribution cost estimating is the customer's design day demand.

Q. PLEASE EXPLAIN WHY THE USE OF DESIGN DAY DEMAND PROVIDES MORE STABLE COST ALLOCATION RESULTS OVER TIME?

A. By definition, a gas utility's design day peak is as stable a determinant of planned capacity utilization as you can derive. If it was not a stable demand determinant, the design of a gas utility's system and supply portfolio would tend to vary and make the installation of facilities a much more difficult task. Therefore, use of design day demands provides a more stable basis than any of the other demand allocators available based on either actual peak day demand or the averaging of multiple peak days.

Q. HOW WAS THE INVESTMENT IN DISTRIBUTION MAINS CLASSIFIED AND ALLOCATED IN THE COMPANY'S COST-OF-SERVICE STUDY?

A. It is widely accepted that distribution mains (Account No. 376) are installed to meet both system peak period load requirements and to connect customers to the gas utility's system. Therefore, to ensure that the rate classes that cause the incurrence of this plant investment or expense are charged with its cost, distribution mains should be allocated to the rate classes in proportion to their peak period load requirements and numbers of customers.

There are two cost factors that influence the level of distribution mains facilities installed by a gas utility in expanding its gas distribution system. First, the size of the distribution main (i.e., the diameter of the main) is directly influenced by the sum of the peak period gas demands placed on the gas utility's system by its customers. Secondly, the total installed footage of distribution mains is influenced by the need to expand the distribution system grid to connect new customers to the system. Therefore, to recognize that these two cost factors influence the level of investment in distribution mains, it is appropriate to allocate such investment based on both peak period demands, and the number of customers served by the gas utility.

b. Treatment of the Gathering System Costs

Q. HOW WERE THE COSTS OF THE COMPANY'S GATHERING SYSTEM ALLOCATED IN ITS COST-OF-SERVICE STUDY?

A. Peoples' gathering system is used to transport gas supplies delivered to its gas distribution system for its system supply and its end-use customers from local production facilities located within its service area. The plant and associated expenses for Peoples' gathering system were allocated to its classes of service based on the percentage of annual gas volumes in each class supplied by Pennsylvania gas producers that moved through the Company's gathering system. It is important to note that a portion of the costs of Peoples' gathering system allocated to its classes of service was effectively assigned to the local gas producers connected to Peoples' gas system by crediting the revenues proposed to be generated from the gathering services provided by Peoples to the same rate classes that received an allocated portion of Peoples' gathering cost-of-service.

c. Treatment of Storage

Q. HOW WERE THE COSTS OF THE COMPANY'S UNDERGROUND STORAGE FACILITIES ALLOCATED IN ITS COST-OF-SERVICE STUDIES?

A. Peoples currently owns and operates the Dice Storage Field, which has 1,530,000 Mcf of storage capacity and 32,000 Mcf of maximum design day withdrawal capacity. Peoples' underground storage is used to generally support the unplanned daily balancing requirements of its sales and transportation service customers. Based on a five-year historical review of the daily withdrawal activity of this facility, it was determined that gas volumes are primarily withdrawn from this storage facility on most days during the months of November through May. As a result, Peoples' Storage Lines and Storage M&R Equipment were allocated to the rate classes in proportion to the total gas sales and transportation volumes for each class during the six-month period of December through May.

d. Allocation of A&G Costs

Q. HOW WERE ADMINISTRATIVE AND GENERAL EXPENSES ALLOCATED IN THE COMPANY'S COST-OF -SERVICE STUDIES?

A. Peoples' cost-of-service studies allocated these expenses on a specific account-by-account basis rather than on an aggregate basis. Specifically, administrative and general expenses of a utility typically pertain to the following cost categories:

(1) labor;

(2) plant or rate base;

(3) O&M expenses; or

(4) some combination of the above categories.

In the Company's cost-of-service study, each of its administrative and general accounts was related to one or more of these categories. These categories were then used as a basis to establish an appropriate allocation factor for each account. The allocation factors chosen were broad-based to specifically recognize the Company-wide nature of administrative and general expenses.

Specifically, supervision, office supplies, and expenses, administrative expenses transferred (Account Nos. 920, 921 and 922) and employee pensions and benefits (Account No. 926) were allocated using a labor-related allocation factor derived based on all non-A&G labor costs incurred by the Company. Similarly, the plant allocation factors discussed above were derived based on the Company's total plant investment. For example, the total Production. Storage, Transmission, and Distribution plant in service by function were used to allocate property insurance (Account No. 924) and injuries and damages (Account No. 925) to the rate classes.

Outside services (Account No. 923) include support activities provided to Peoples directly by its outside service providers and internal service organizations. These activities relate to various general business functions supporting the Company's gas utility operations. Due to the general nature of these costs and their corporate-wide applicability, the non-gathering costs were allocated to the Company's customer classes using a labor-based

allocation factor reflecting labor-related costs across all of Peoples' non- A&G cost accounts.

Q. HOW WERE TAXES OTHER THAN INCOME TAXES ALLOCATED IN THE COMPANY'S COST-OF-SERVICE STUDY?

A. Peoples' cost-of-service studies allocated these expenses in a manner to reflect the specific cost causative factors associated with the Company's specific tax expense categories. Specifically, these taxes can be cost classified based on the tax assessment method established for each tax category (i.e., property and payroll). As a result, taxes other than income taxes of a utility typically can be grouped into the following categories:

(1) plant;

(2) labor; and

(3) gas supply related.

In the cost-of-service study, each of Peoples' taxes other than income taxes accounts was related to one of the above stated categories with one exception. These categories were then used as a basis to establish an appropriate allocation factor for each tax account. The one exception is for Other General Taxes which consists of emission taxes related to Gathering. These taxes were therefore directly assigned to the Gathering functions.

Q. HOW WERE INCOME TAXES ALLOCATED IN THE COMPANY'S COST-OF-SERVICE STUDIES?

A. Aggregate Income Taxes (income taxes at current rates plus income tax change at proposed rates) were allocated based on rate base.

E. Other Cost-of-Service Study Issues

Q. HOW DID YOU RECOGNIZE THE FACT THAT THE COMPANY OPERATES BOTH LOW AND REGULATED PRESSURE DISTRIBUTION MAINS?

A. This operating condition was recognized in the Company's cost-of-service studies by treating the plant and associated expenses for its low-pressure gas distribution system differently compared to the treatment of the plant and associated expenses for its regulated pressure gas distribution system. The manner in which various sizes of customers rely upon the Company's gas distribution system determined how each portion of Peoples' gas distribution system was allocated to its rate classes. Specifically, the plant and associated expenses for Peoples' regulated pressure distribution mains were assigned to all rate classes, while the plant and associated expenses for its low-pressure distribution mains were assigned only to the Residential Service, Small General Service, and Medium General Service rate classes. This treatment reflects the fact that larger customers (primarily industrial customers) included in the Company's Large General Service rate class do not require Peoples' low pressure distribution mains to receive gas utility service. The nature of their gas loads and higher gas delivery pressure requirements requires that they be served from Peoples' regulated pressure gas distribution system. In fact, because of such gas demand requirements, these customers are not connected to Peoples' low-pressure gas distribution system, nor can they be served indirectly through a back-feeding of gas from such facilities. As a result, the cost causative characteristics of these plant and expense

elements dictate that they should be treated for cost allocation purposes in the manner just described.

Also, as is discussed later in my testimony, the Company has identified a group of customers (i.e., Mainline customers) who do not use the Company's high-pressure distribution network. These customers have been moved into a new tariff class and no high-pressure mains costs have been allocated to this tariff class.

Q. WHY HAVE YOU PERFORMED MULTIPLE STUDIES IN THIS PROCEEDING?

A. By performing cost-of-service studies under various cost allocation methodologies, the boundaries of cost responsibility may be identified. The results can then be used as a tool to guide the Company's revenue allocation and rate design.

Given adequate time and resources, each individual investment and expense could be analyzed to determine how it is used and what created the need for the investments and operating expenses and classified accordingly. Such a detailed cost classification study would, perhaps, be more accurate, but very costly to perform. However, the results of such a detailed and extensive cost-of-service study (assuming that data is available to accomplish it) may not be any more useful for revenue allocation and rate design than the cost-of-service studies filed in this proceeding, particularly when the cost analyst considers: (1) the need to ameliorate customer impacts; (2) the limitations of cost tracking of rates designed for a broad class of customers; and (3) the time and financial constraints in preparing a rate filing. The use of more than one cost allocation methodology attempts

to recognize the level of judgment inherent in performing cost-of-service studies and provides this Commission with a reasonable and useable range of results.

In view of these considerations, and to minimize the potential controversy associated with selecting particular cost allocation methods, I have decided to use two common demand cost allocation methods (the peak method and the peak and average method), with and without a customer component of distribution mains, to determine a range of rate of return values for purposes of evaluating class cost responsibility. I will describe that evaluation later in my testimony.

F. Special Studies

Q. PLEASE DESCRIBE THE SPECIAL STUDIES YOU CONDUCTED FOR PURPOSES OF ALLOCATING OTHER DISTRIBUTION PLANT INVESTMENT.

A. Regarding the Company's major plant accounts, a combination of direct assignments and weighting factors were developed to allocate the following plant accounts:

- Services - Account No. 380;
- Meters - Account No. 381; and
- Industrial Measuring & Regulating Station Equipment - Account No. 385.

The weighting factors reflect any differences in the unit costs that the customer groups cause the Company to incur. For example, the average cost of a meter to serve a Residential Service customer was approximately $198.00, compared to the average cost of a meter to serve a Medium General Service customer of approximately $3,073.00. In addition, the cost of a service line for a residential customer costs less, on a per unit basis, than the cost

of a service line to serve an industrial service customer. The use of weighting factors takes these unit cost differences into account when assigning costs to these two customer classes.

Q. PLEASE DESCRIBE THE METHOD USED TO ALLOCATE RESERVE FOR DEPRECIATION AND DEPRECIATION EXPENSE.

A. These items were allocated on the same basis as their associated plant accounts.

Q. HOW WERE DISTRIBUTION-RELATED OPERATIONS AND MAINTENANCE EXPENSES ALLOCATED IN THE COMPANY'S CLASS COST-OF-SERVICE STUDY?

A. In general, these expenses were allocated on the basis of the cost allocation methods used for the Company's corresponding plant accounts. A utility's operation and maintenance expenses generally are thought to support the utility's corresponding plant-in-service accounts. That is, the existence of the particular plant facilities necessitates the incurrence of cost (i.e., expenses) by the utility to operate and maintain those facilities. As a result, the allocation basis used to allocate a specific plant account will be the same basis as used to allocate the corresponding expense account. For example, Maintenance of Services - Account No. 892, is allocated on the same basis as its investment in Services - Account No. 380. With the Company's detailed analyses supporting its assignment of plant in service components, where feasible, it was deemed appropriate to rely upon those results in allocating related expenses in view of the overall conceptual acceptability of such an approach.

G. Results of the Cost-of-Service Study

Q. PLEASE DISCUSS THE RESULTS OF THE COMPANY'S COST-OF-SERVICE STUDIES.

A. Referring to IV-B-1(E) of Exhibit 11, Schedule 1, the following cost-of-service study results at present rates for the future test year are summarized in the table below:

Method	Total	RES	SGS	MGS	LGS
Return @ Cur. Rates - Demand/Peak and Avg	5.50%	6.20%	3.20%	2.70%	7.10%
Return @ Cur. Rates - Min System/Design Day	5.50%	4.00%	5.10%	10.80%	17.10%

Q. PLEASE DESCRIBE THE CONTENTS OF EXHIBIT RNZ-2.

A. Peoples Exhibit RNZ-2 - Cost Analysis Supporting Customer Charges for All Rate Schedules - presents the components of the customer-classified costs for each of Peoples' customer classes. This information is extracted from the cost-of-service studies which are presented in Exhibit 11, Schedule 1.

Q. HAVE YOU PREPARED A MINIMUM SYSTEM CUSTOMER ANALYSIS THAT RELIES UPON THE COMMISSION'S PAST REGULATORY PREFERENCES AND PRECEDENTS ADDRESSING THIS ISSUE?

A. Yes. While I believe that the Company's customer cost analysis presented in Exhibit 11, Schedule 4 is the most appropriate method to derive a gas utility's customer-related cost-of-service for purposes of setting its monthly customer charges, I do recognize that in the past this Commission has relied, at least in part, on a minimum customer analysis approach

that excludes certain costs that, in my opinion, are also appropriately classified as customer related costs. As a result, I have also prepared a customer cost analysis that was guided by the Commission's decision in the Aqua Pennsylvania Rate Case in Docket R00038805. This cost analysis is presented in Peoples Exhibit RNZ-2. It shows that the level of the monthly customer charge for the Company's Residential Service rate class should be equal to at least $22.15 per month.

Q. HOW CAN THE COST-OF-SERVICE STUDY RESULTS PROVIDE GUIDELINES FOR THE PROPOSED RATE DESIGN?

A. Results of a cost-of-service study provide cost guidelines for use in evaluating class revenue levels and class rate structures. With regard to rate class revenue levels, the rate of return results show that certain rate classes are being charged rates that recover less than their indicated costs of service. Obviously, because this condition exists, rates for other rate classes provide for recovery of more than the indicated costs of serving these other rate classes. By adjusting rates in accordance with the cost study, rate class revenue levels can be brought closer in line with the indicated costs of service, resulting in movement of rate class rates of return toward the system average rate of return and resulting in rates that are more in line with the cost of providing service.

Concerning cost justification of rates within each rate class, the classified costs, as allocated to each class of service in the cost study, provide cost information that can be of assistance in determining the need for changes in the relative levels of demand charges (if they exist), customer and commodity rate block charges.

Q. ARE THE RESULTS OF A UTILITY'S COST-OF-SERVICE STUDY ALWAYS RELEVANT FOR ALL TYPES OF SERVICES?

A. No. This situation applies to Peoples' competitively situated customers, where rates are based on their competitive characteristics. Competitive customers should be established at a price level where they are recovering in excess of out-of-pocket costs and therefore reducing the overall requirement reducing costs for all customers. For these customers, the price the customer is willing to pay for gas delivery service relative to available alternatives has much more influence on the relative profitability (i.e., rate of return on net rate base) than cost causation does, as measured by a gas utility's cost-of-service study. This view is shared by NARUC in its Gas Rate Design Manual, where it states that "[s]etting rates based on value of service bears little relationship to setting them based on cost-of-service. When using value of service principles, we normally look not to the cost of the utility providing the service, but rather to the cost of alternatives available to the customer." Therefore, the guidelines I discussed above are most useful when evaluating the costs to serve customers in the Company's RS, SGS and MGS rate classes, and less useful when evaluating its LGS rate class which includes most of the Company's competitively situated customers who are priced on a negotiated (i.e., value of service) basis. In addition, as I pointed out earlier in my testimony, cost-of-service study results for Peoples' gathering service to local gas producers (other than the derivation of Peoples' total functionalized cost of gathering) do not provide the sole basis for adjustments to the current level of rates for this service.

Q. PLEASE DESCRIBE HOW THE UNIT COST ANALYSIS PRESENTED IN EXHIBIT 11 WAS PREPARED.

A. The cost-of-service compiles the functionalized, classified, and allocated expenses and rate base data for each class of service. The system average rate of return is applied to the allocated rate base to determine the required net income. This is then grossed up to account for the income tax related revenue responsibilities. The sum of the expense related revenue requirement and the rate base related revenue requirement yields the total revenue requirement for each component of cost at the system average rate of return. The computer model makes this calculation for each of the various cost components (i.e., the customer, demand and commodity portions of the supply, gathering, storage, and distribution functional categories). The functionally classified costs are unitized by dividing the total costs by the appropriate number of billing units. Customer-related costs are divided by the number of bills, demand related costs are divided by the contribution to peak demand and commodity-related costs are divided by the number of Mcf delivered. It should be noted that a monthly customer cost is calculated for each customer class, as well as unit commodity and demand costs.

Page 153 of IV-B-1(A) and IV-B-1(B) (Exhibit 11, Schedule 1) presents the unitized cost-of-service study results (at the Company's proposed rate of return on rate base) described above.

Q. CAN THE RESULTS OF THE UNIT COST ANALYSIS BE USED FOR RATE DESIGN?

A. Yes, if three-part rates (i.e., customer, demand, and commodity) were set at the unit cost levels, the Company's operating expenses and rate of return on investment based on its pro-forma test year would be recovered (assuming customer counts, gas deliveries and other billing determinants were as projected). The unit cost analyses also provide valuable unbundled cost information for the design of portions of the tariff.

Q. CAN THE UNIT COST ANALYSIS PROVIDE GUIDANCE ON THE APPROPRIATE LEVEL OF MONTHLY CUSTOMER CHARGES?

A. Yes. For example, Peoples' cost-of-service studies show that a full cost-based customer charge for its Residential Service class is supportable within a range of between $22.15 (Minimum Customer Cost) and $41.85 (Minimum System / Design Day Cost) per month. The unit cost analysis could also be used to establish separately metered contract demand charges where the cost of demand metering can be justified or where a reasonable method of estimating customer demands can be derived.

Q. ARE THE TOTAL FUNCTIONALIZED COST OF THE GATHERING SYSTEM DERIVED IN THE COST-OF-SERVICE STUDY?

A. Yes. The functionalization phase of Peoples' cost-of-service study identifies the specific plant components and expenses that comprise the gathering function and allocates other indirect costs that are necessary to support the gathering function. This process determines Peoples' fully loaded cost of gathering service. Peoples Exhibit RNZ-3 summarizes the rate base, expenses, rate of return on rate base (as proposed) and, federal income taxes that

comprise Peoples' total gathering cost-of-service. These cost components are derived from the cost-of-service study presented in Exhibit 11, Schedule 1, IV-B-1(A), Pages 63 to 72, which provides each of the detailed plant and expense components that comprise Peoples' gathering function. As a point of comparison, Peoples Exhibit RNZ-3 also provides Peoples' gathering service revenues at present .and proposed rates.

IV. PEOPLES' PROPOSED CLASS REVENUES

Q. PLEASE DESCRIBE THE APPROACH FOLLOWED TO ALLOCATE THE $173.7 MILLION BASE RATE REVENUE INCREASE TO VARIOUS CUSTOMER CLASSES.

A. As described earlier, the apportionment of revenues among rate classes consists of deriving a reasonable balance between various criteria or guidelines related to utility rate design. The various criteria that were considered in the process included:

(1) cost-of-service;

(2) class contribution to present revenue levels; and

(3) customer impact considerations.

Complicating the allocation of the revenue increase is the combination of the PNG and PG rates and tariffs. The significant differences in the level of the existing rates introduces challenges to developing tariffs.

These criteria were evaluated for each of the Company's rate classes. Based on this evaluation, adjustments to the present revenue levels in certain rate classes were made so

that the rates proposed by Peoples moved class revenues closer to the costs of serving those rate classes.

Q. PLEASE PROVIDE THE RATE OF RETURNS ("ROR") PRODUCED BY EACH TARIFF CLASS UNDER PRESENT RATES.

A. Peoples Exhibit RNZ-4 provide two reference points based on the cost-of-service studies presented by Peoples.

Q. DO YOU BELIEVE THAT ALLOCATING THE RATE INCREASE USING EITHER COST-OF-SERVICE STUDY IS APPROPRIATE?

A. No. I believe that adopting the results from either cost-of-service study to allocate the rate changes ignores the principle of gradualism which should be considered in any rate design exercise.

Q. WHAT IS THE PROPOSED ALLOCATION OF THE REVENUE REQUIREMENT TO EACH TARIFF CLASS?

A. Based upon input from the Company and the results of the cost-of-service analyses, I prepared the proposed revenues and associated increases as provided in the Peoples Exhibit 11.

Q. DOES THE PROPOSED ALLOCATION OF THE REVENUE REQUIREMENT PROVIDE MOVEMENT FOR EACH CLASS TOWARD COST-OF-SERVICE?

A. This approach resulted in reasonable movement of the class relative rates of return on net rate base towards unity or 1.00. The results are provided in Exhibit 11, Schedule 1, IV-B-1(A), Page 1.

Q. EARLIER IN YOUR TESTIMONY YOU MENTIONED THAT BECAUSE THE COMPANY HAS COMPETITIVELY SITUATED CUSTOMERS INCLUDED IN THE SGS, MGS AND LGS RATE CLASSES, ANY INCREASE IN CLASS REVENUES ASSIGNED TO THOSE RATE CLASSES COULD NOT BE RECOVERED FROM SUCH CUSTOMERS. HOW WILL THE OTHER CUSTOMERS IN THESE RATE CLASSES BE IMPACTED BY THE INCREASES IN REVENUES TO THESE RATE CLASSES UNDER THE COMPANY'S INTERCLASS REVENUE PROPOSAL?

A. The standard rates of the other customers were increased to recover the entirety of the revenue increase assigned to each of these three rate classes. In other words, any discounts which competitive customers were provided were recovered from the other customers in that tariff class. In doing so, the Company was mindful of the unique customer impact considerations in these rate classes recognizing the fewer number of customers and decreased level of gas volumes under which any revenue increase could be recovered through the Company's standard rates. As such, it is important to understand that any

greater level of revenue sought from these rate classes will have a disproportionate impact on the level of the Company's standard rates proposed for these rate classes.

V. Proposed Rate Design

H. Rate Design Principles and Changes in the Structural Peoples Rate Design.

Q. CAN YOU PLEASE DESCRIBE THE KEY OBJECTIVES YOU SOUGHT TO ACHIEVE IN THE DESIGN OF THE PEOPLES' PROPOSED RATES?

A. Yes. In general, I sought to achieve the following objectives when developing the proposed rate design:

- Achieve fair and equitable rate levels (reflective of the cost to serve);
- Avoid undue discrimination between and within rate classes;
- Rates should be stable, understandable, and provide customer choices;
- Create economically efficient pricing for natural gas delivery service;
- Rates should encourage energy conservation and energy efficiency; and
- Rates should allow a utility to recover its revenue requirement in a manner that maintains revenue stability and minimizes year-to-year under or over-collections.

Q. PLEASE DESCRIBE THE CHANGES IN THE PEOPLES GAS STRUCTURAL RATE DESIGN.

A. We are proposing the following structural changes:

- In the previous request, Peoples implemented transition tariffs for certain customers to mitigate rate increases. We are proposing that customers served under transition rates be moved to the standard rate design for those classes;
- A Mainline rate design is proposed for LGS customers who are not served by the company's distribution and/or transmission system; and
- The tariffs of PNG and PG are being combined.

I. Proposed Revenue Targets

Q. WHAT ARE THE PROSPOED REVENUE TARGETS FOR EACH RATE CLASS?

A. The table below provides the target base rate revenue for each rate class based upon the average of the two cost-of-service approaches previously discussed in my testimony.

	Revenues at Current Rates	Minimum System/Design Day	Demand/Peak & Average	Mean	Rate Design Target	Rate Design Proposed Revenues	Percent Increase	Proposed Revenues as a Percent of Target
RES	$347,866,631	$508,820,648	$451,420,813	$480,120,731	$480,120,731	$480,120,731	38%	100%
SGS	$43,991,391	$60,323,814	$67,379,366	$63,851,590	$63,851,590	$63,852,921	45%	100%
MGS	$57,024,004	$60,132,252	$90,788,231	$75,460,242	$75,460,242	$75,459,798	32%	100%
LGS	$55,979,202	$49,322,142	$69,010,446	$59,166,294	$59,166,294	$59,166,294	6%	100%
Total	$504,861,227	$678,598,857	$678,598,857	$678,598,857	$678,598,857	$678,599,743	34%	100%

J. Residential Rate Design

Q. PLEASE DESCRIBE THE PROPOSED RESIDENTIAL RATE DESIGN.

A. As I previously discussed in my testimony, Peoples Natural Gas and Peoples Gas are combining their tariffs in this proceeding. I am proposing the same distribution rates for residential customers of the two entities.

Q. DOES A SIGNIFICANT DIFFERENCE EXIST BETWEEN THE RESIDENTIAL DISTRIBUTION RATES OF PNG AND PG?

A. The overall structure of the distribution rates for both divisions is the same. They include a monthly fixed charge and a volumetric charge. However, the overall levels of these charges differ. PG's rates are higher than the PNG rates.

Q. HOW DO THE PRESENT REVENUES OF THE COMBINED ENTITY COMPARE TO THE RESULTS OF THE ALLOCATED COST-OF-SERVICE STUDY?

A. The residential customers of the combined entities are recovering 72 percent of the allocated cost-of-service.

Q. PLEASE DETAIL YOUR PROPOSED RESIDENTIAL DISTRIBUTION RATE DESIGN.

A. The proposed distribution rate design is detailed in Peoples Exhibit RNZ-5.

Q. ARE THE PROPOSED RATES SUPPORTED BY THE COST-OF-SERVICE STUDY?

A. If the proposed rates are adopted, the Residential class will produce revenues at 100 percent of the targeted cost-of-service level. The proposed monthly fixed charge of $21.50 is below the level detailed in the unit cost analysis of $41.85, and the Minimum Customer Cost of $22.15. The proposed volumetric charge is $5.6304.

Q. HAVE YOU PREPARED A BILL IMPACT ANALYSIS FOR A TYPICAL RESIDENTIAL CUSTOMER?

A. Yes. I have prepared bill impacts for a typical residential customer consuming 80 Mcf per year. Separate bill impacts have been prepared for legacy PNG and PG customers. A legacy typical PNG customer will experience an overall impact of 21.2 percent increase, including the cost of gas and riders. In contrast PG customers will experience an increase of 7.5 percent, including gas costs and riders. The residential typical bill analysis is detailed in Peoples Exhibit RNZ-6.

Q. IN THE COMPANY'S PREVIOUS CASE, CERTAIN RESIDENTIAL CUSTOMERS WERE PLACED ON A TRANSITIONAL RATE DESIGN TO AVOID ADVERSE RATE INCREASES. HOW WERE THESE CUSTOMERS TREATED IN THE PROPOSED RATE DESIGN?

A. It was determined that residential transitional customers would not experience adverse impacts if they were placed on the proposed residential tariffs. I propose to eliminate the residential transitional rate class.

K. Small General Service

Q. PLEASE DESCRIBE THE PROPOSED SMALL GENERAL SERVICE RATE DESIGN.

A. Similar to the Residential rate design, The SGS customers of the combined entities are recovering 69 percent of the allocated cost-of-service.

Q. DOES A DIFFERENCE EXIST BETWEEN THE SMALL GENERAL SERVICE DISTRIBUTION RATES OF PNG AND PG?

A. The overall structure of the distribution rates for both divisions is the same. They include a monthly fixed charge and a volumetric charge. However, the overall levels of these charges differ. PG's rates are higher than the PNG rates.

Q. PLEASE DETAIL YOUR PROPOSED SMALL GENERAL SERVICE DISTRIBUTION RATE DESIGN.

A. The present and proposed distribution rate designs are detailed in Peoples Exhibit RNZ-5.

Q. ARE THE PROPOSED RATES SUPPORTED BY THE COST-OF-SERVICE STUDY?

A. The proposed monthly fixed charges of $25.00 and $50.00 are generally supported by the Company's preferred cost-of-service study of $43.62, and exceeds the Minimum Customer Cost of $23.83. At proposed rates, the SGS class recovers 100 percent of the allocated revenue requirement.

Q. HAVE YOU PREPARED A BILL IMPACT ANALYSIS FOR A TYPICAL SMALL GENERAL SERVICE CUSTOMER?

A. Yes. I have prepared bill impacts for a typical Small General Service customers consuming 250 (Tier 1 customers) and 750 Mcf (Tier 2 customers) per year. Separate bill impacts have been prepared for legacy PNG and PG customers.

- Tier 1 (0-499 Mcf per year) Small General Service Customers: A legacy Tier 1 PNG customer will experience an overall typical bill increase of 22.1 percent, including the cost of gas and riders. In contrast, PG customers will experience an increase of 0.4 percent.
- Tier 2 (500-999 Mcf per year) Small General Service Customers: A legacy Tier 2 PNG customer will experience an overall increase of 22.1 percent, including the cost of gas and riders. In contrast, PG customers will experience an increase of 2.5 percent.

The typical bills are detailed in Exhibit RNZ-6.

L. Medium General Service

Q. PLEASE DESCRIBE THE PROPOSED MEDIUM GENERAL SERVICE RATE DESIGN.

A. Similar to the Small General Service rate design, the Medium General Service rates for PG and PNG are being combined.

Q. DOES A SIGNIFICANT DIFFERENCE EXIST BETWEEN THE MEDIUM GENERAL SERVICE DISTRIBUTION RATES OF PNG AND PG?

A. The overall structure of the distribution rates for both divisions are the same. They include a monthly fixed charge and a volumetric charge. However, the overall levels of these charges differ. The PG's rates are higher than the PNG rates.

Q. HOW DO THE PRESENT MGS REVENUES OF THE COMBINED ENTITY COMPARE TO THE RESULTS OF THE ALLOCATED COST-OF-SERVICE STUDY?

A. The combined entities are currently recovering 76 percent of the allocated cost-of-service revenues.

Q. PLEASE DESCRIBE THE PROPOSED MEDIUM GENERAL SERVICE DISTRIBUTION RATE DESIGN.

A. The proposed distribution rate designs is detailed in the Exhibit RNZ-5.

Q. ARE THE PROPOSED RATES SUPPORTED BY THE COST-OF-SERVICE STUDY?

A. The proposed monthly fixed charges of $105 and $150 are partially within the range supported by the Minimum Customer Cost Study ($90.43) and the Minimum System/Design Day methods ($117.05). The proposed volumetric charges are $3.8268 per Mcf.

Q. HAVE YOU PREPARED A BILL IMPACT ANALYSIS FOR A TYPICAL MGS CUSTOMERS?

A. Yes. I have prepared bill impacts for a typical Medium General Service customers consuming 1,750 and 13,750 Mcf per year. Separate bill impacts have been prepared for legacy PNG and PG customers.

- Tier 1 (1,000-2,499 Mcf per year) Medium General Service Customers: A legacy Tier 1 PNG customer will experience an overall increase of 13.8 percent, including the cost of gas and riders. In contrast, PG customers will experience a decrease of 1.0 percent.
- Tier 2 (2,500-24,999 Mcf per year) Small General Service Customers: A legacy Tier 2 PNG customer will experience an overall increase of 13.4 percent, including the cost of gas and riders. In contrast, PG customers will experience a decrease of 3.9 percent.

The typical bills are detailed in Exhibit RNZ-6.

Q. IN THE COMPANY'S PREVIOUS CASE, CERTAIN MEDIUM GENERAL SERVICE CUSTOMERS WERE PLACED ON A TRANSITIONAL RATE DESIGN TO AVOID ADVERSE RATE INCREASES. HOW WERE THESE CUSTOMERS TREATED IN THE PROPOSED RATE DESIGN?

A. It was determined that Medium General Service transitional customers would not experience adverse impacts if they were placed on the proposed residential tariffs. I propose to eliminate the residential transitional rate class.

M. Large General Service

Q. PLEASE DESCRIBE THE PROPOSED LARGE GENERAL SERVICE RATE DESIGN.

A. Similar to the other rates for PG and PNG, LGS rates for both divisions are being combined. Further, we are proposing an expansion of the LGS tariff to provide a Mainline service rate for customers who do not use the high-pressure distribution system.

Q. DOES A SIGNIFICANT DIFFERENCE EXIST BETWEEN THE LARGE GENERAL SERVICE DISTRIBUTION RATES OF PNG AND PG?

A. The overall structure of the distribution rates is the same for both divisions. They include a monthly fixed charge and a volumetric charge. However, the overall levels of these charges differ. PG's rates are higher than the PNG rates. Exhibit RNZ-6 details the present rates for the two entities.

Q. ARE YOU PROPOSING ANY CHANGES TO THE LGS TARIFF RATE DESIGN?

A. Yes. I am proposing an expansion of the LGS Tariff. The expansion is a pricing option for customers who are:

- Connected directly to the Company's transmission system and not using the distribution system; or
- Connected directly to interstate pipelines through facilities constructed by the Company.

I will refer to the above two groups of customers as "Mainline Customers".

Q. ARE THE MAINLINE CUSTOMERS CURRENTLY SERVED UNDER THE LGS TARIFF RATES?

A. No. The Mainline customers are all served under special contracts but are classified as LGS customers. The Mainline customer Mcf sales and revenues captured in the FPFTY are 22,422,445 Mcf and $7.0 million in present base revenues.

Q. PLEASE DESCRIBE THE COMPANY'S REGULATED DISTRIBUTION SYSTEM – ACCT. 376. AND WHAT RATE CLASSES ARE SERVED BY THAT DISTRIBUTION SYSTEM.

A. The Company operates a high-pressure and low-pressure distribution system. The low-pressure and high-pressure distribution systems are both captured in Account 376 – Mains. For the purposes of the cost-of-service study, Account 376 is separated into the high- and

low-pressure systems. All customers served under the LGS tariff are not interconnected to the low-pressure system and therefore not allocated any cost associated with these investments. However, LGS customers are allocated a portion of the high-pressure distribution system.

Q. DO ALL LGS CUSTOMERS USE THE COMPANY'S DISTRIBUTION ASSETS?

A. No. As I described previously in my testimony, the Mainline customers are served through the Company's transmission system or interconnections to interstate pipelines.

Q. DOES THE DESIGN OF THE EXISTING LGS CORRECTLY REFLECT THE EMBEDDED COST TO SERVE THESE CUSTOMERS?

A. No. In the case of customers served by the Company's transmission system, the existing LGS rate design captures the embedded cost of the High-Pressure distribution system not used by these customers. In the case of customers served through a People's interconnection to an interstate pipeline, those customers also avoid the Company's transmission system.

Q. HOW DID YOU DEVELOP THE PROPOSED RATE DESIGNS?

A. I added two new tariff classes to the cost-of-service study, Mainline LGS Transmission customers and Mainline LGS Non-Transmission customers.

Q. PLEASE DESCRIBE THE DESIGN OF MAINLINE LGS TRANSMISSION SERVICE.

A. Mainline LGS Transmission customers do not use the high-pressure distribution system, Account 376 – Regulated Mains. Account 376 – Regulated Mains. Therefore, Mainline LGS transmission customers are not allocated Account 376 – Regulated Mains costs. All other cost allocations are consistent with the other LGS customers.

Q. PLEASE DESCRIBE THE DESIGN OF MAINLINE LGS NON-TRANSMISSION SERVICE.

A. Mainline LGS Non-Transmission customers do not use the Company's transmission system because they are interconnected to interstate pipelines. Therefore, Mainline LGS transmission customers are not allocated Account 376 – Regulated Mains costs and transmission mains. All other cost allocations are consistent with the other LGS customers.

Q. DOES THE CREATION OF THE MAINLINE LGS TARIFFS REDUCE THE SIZE OF THE CURRENT DEFINITION OF LGS CUSTOMERS?

A. The sum of the three tariffs, LGS, Mainline LGS transmission and Mainline LGS Non-transmission, equals the traditional definition of LGS customers. The Mainline LGS customers constitute 48 percent of the Mcf sales and 13 percent of the revenues of the total LGS tariff class.

Q. DO YOU ANTICIPATE CUSTOMER MOVEMENT FROM THE CURRENT LGS RATE TO THE PROPOSED LGS MAINLINE RATE?

A. I do not anticipate any customers will move from their current special contracts to the proposed LGS Mainline tariff. The special contracts which they are served under captures pricing equal to that of their competitive alternatives which is below the proposed LGS Mainline tariff.

Q. WILL THE CUSTOMERS RECEIVING SERVICE UNDER MAINLINE LGS TARIFFS RECEIVE A "WINDFALL" BY TAKING SERVICE ON THE PROPOSED TARIFF?

A. No. The development of Mainline LGS service reflects the accurate embedded cost to serve these customers which was previously not reflected in the existing LGS tariff. Creating the Mainline LGS tariff eliminates an implicit cross-subsidy in the embedded cost-of-service study. The proposed rates are based upon cost-of-service principles and any reallocation of the revenue requirement is supported by cost-of-service principles. The existing tariffs allocate costs to Mainline customers for facilities which they do not use.

Q. IF MAINLINE CUSTOMERS ARE SERVED AT A PRICE BELOW THE MAINLINE LGS RATE ARE THEY BEING SUBSIDIZED BY THE OTHER CUSTOMERS WHICH THE COMPANY SERVES?

A. If Mainline LGS customers have competitive alternatives below that of the proposed Mainline LGS rate, but above the Company's out-of-pocket costs, they are not being cross-

subsidized by other customers. The fact that the Mainline customers are not paying the embedded cost-of-service is not evidence a subsidy has been created. As I stated above, the Mainline customers have competitive alternatives providing a lower cost alternative to service under the Company's standard rates.

Q. PLEASE DETAIL YOUR PROPOSED LARGE GENERAL SERVICE DISTRIBUTION RATE DESIGN.

A. The proposed distribution rate design is detailed in Exhibit RNZ-5.

Q. ARE THE PROPOSED RATES SUPPORTED BY THE COST-OF-SERVICE STUDY?

A. The proposed monthly fixed charges range from $800.00 to $1,920.00 are in some cases above that which is supported by the Minimum Customer Cust Study of $959.20 and, $1,027.31 in the Minimum System/Design Day cost-of-service study. The proposed volumetric charges range from $1.5319 and $2.4602 per Mcf.

Q. HAVE YOU PREPARED A BILL IMPACT ANALYSIS FOR TYPICAL LGS CUSTOMERS?

A. Yes. I have prepared bill impacts for a typical Large General Service customers which is detailed in Exhibit RNZ-6.

Q. IN THE COMPANY'S PREVIOUS CASE, CERTAIN LARGE GENERAL SERVICE CUSTOMERS WERE PLACED ON A TRANSITIONAL RATE DESIGN TO AVOID ADVERSE RATE INCREASES. HOW WERE THESE CUSTOMERS TREATED IN THE PROPOSED RATE DESIGN?

A. It was determined that Large General Service transitional customers would not experience adverse impacts if they were placed on the proposed LGS tariffs. I propose to eliminate the LGS transitional rate class.

VI. Heating Degree Day Estimation

Q. WHY IS IT NECESSARY TO ESTIMATE THE EXPECTED LEVEL OF HEATING DEGREE DAYS ("HDD") WHEN ESTIMATING THE TEST YEAR REVENUES.

A. The number of HDDs varies from year-to-year based upon normal random variation in weather. Random variation is normal. A significant quantity of Peoples sales is weather-sensitive. In other words, if HDD are above the expected level, sales would be expected to be in excess of the test year estimate. Conversely, if HDD are below the expected below the expected level, sales will be below the test year estimate.

Q. THE TESTIMONY OF COMPANY WITNESS SCANLON PROPOSES USING 5,341 HDD AS AN ESTIMATE FOR NORMAL WEATHER FOR THE TEST YEAR. DO YOU BELIEVE ADOPTING 5,341 HDD IS APPROPRIATE?

A. Yes, I believe that adopting 5,341 HDD is a conservative estimate of weather for the test year.

Q. PLEASE DESCRIBE WHY YOU BELIEVE THAT 5,341 HDD IS AN CONSERVATIVE ESTIMATE.

A. Company Witness Scanlon developed the estimated HDD based an average of two approaches to estimating HDD. The first approach is based upon a 20-year average of HDD for the Company's service area. Using historical data to estimate the test-year level of HDDs has been used in the past. Implicit in using a multi-year average is that the mean number of HDD does not change over time, only variation from year-to-year.

Q. IF HDD ARE CHANGING OVER TIME DOES THE 20-YEAR AVERAGE REFLECT THE TREND IN THE DATA?

A. It is generally agreed that weather is becoming milder (i.e., warmer) over time. Therefore, the average number of HDD for each year are decreasing. In other words, a trend exists in the HDD data and the mean number of HDD experienced over time is decreasing.

The trend of decreasing HDD is inconsistent with the use of a 20-year average which assumes that the mean of the HDD is constant over time. Use of the 20-year HDD average will overstate the expected HDD level in the future because it fails to recognize the trend of declining HDD (i.e., warmer weather). Simply put, the 20-year average introduces a bias in the analysis overstating HDD.

Q. HAS THE COMPANY DEVELOPED AN APPROACH WHICH ESTIMATES THE TREND IN THE ANNUAL NUMBER OF HDD?

A. Yes. A regression analysis was developed which estimated the trend in HDD over time. The regression used 65 years of data and produced a negative coefficient for the time variable. The negative coefficient for the time variable produces estimated HDD which slightly decreases every year.

Therefore, adopting the averaging methodology of the 20-year average will not capture the trend of decreasing HDD. The 65-year regression captures the trend of decreasing HDD. Therefore, averaging the results of the two approaches will provide a conservative (slightly overstated) level of HDD for the test-year.

N. Weather Normalization Mechanism

Q. PLEASE DESCRIBE THE CHALLENGES TRIGGERED BY NON-NORMAL WEATHER FOR A NATURAL GAS DISTRIBUTION UTILITY AND ITS CUSTOMERS.

A. A significant variation occurs in the heating load triggered by non-normal weather. Significant variation in heating load can occur from year-to-year, which burdens the natural gas distribution utility and customers.

Q. WHAT ARE THE IMPACTS OF THE VARIATION IN WEATHER ON CUSTOMERS?

A. The impact on customers triggered by non-normal weather is variation in the level of bills. The variation can be especially problematic when severe weather occurs, and customers' bills increase.

Q. WHAT ARE THE IMPACTS OF THE VARIATION IN WEATHER FOR THE COMPANY?

A. The Company's revenues fluctuate. However, the majority of the Company's cost structure related to delivery base rates is fixed. Therefore, under- and over-earning occurs.

Q. WHAT ARE THE POTENTIAL REMEDIES TO THE CHALLENGES INTRODUCED BY WEATHER VARIATION?

A. Regulatory authorities in the United States have introduced a number of mechanisms addressing revenue variation triggered by weather variation and other factors. The Company proposes a Weather Normalization Mechanism to remedy the weather normalization problem specifically.

Q. WHAT IS THE OBJECTIVE OF THE PROPOSED WEATHER NORMALIZATION MECHANISM?

A. The Weather Normalization Mechanism provides symmetric protection to customers and the Company for revenue variations in usage associated with non-normal weather.

Q. IS THE WEATHER NORMALIZATION MECHANISM A REVENUE DECOUPLING MECHANISM?

A. No. A Revenue Decoupling Mechanism is designed to adjust revenue variation triggered by several variables introducing volatility in the utility revenue stream. The proposed Weather Normalization Mechanism has a narrower focus and only adjusts for the variation in normal Heating Degree Days ("HDD") in a specific time period. The Weather Normalization mechanism only applies to the non-base load consumption. The Weather Normalization Mechanism would not address reductions in usage associated with adopting more efficient end-use equipment, customer defection to other fuels, and other similar variables.

Q. PLEASE DESCRIBE HOW THE COMPANY'S PROPOSED WEATHER NORMALIZATION MECHANISM WILL OPERATE.

A. The proposed Weather Normalization mechanism will adjust the delivery base rate volumetric component of the customer's bill, reflecting the revenues associated with weather-sensitive load. The mechanism will be applied on a customer-by-customer basis.

Q. DOES A WEATHER NORMALIZATION MECHANISM REDUCE THE RISK OF THE UTILITY?

A. I defer questions about risk to the Company's cost of capital witness, Mr. Moul.

Q. IS A DEADBAND INLCUDED IN THE COMPANY'S PROSPOED WEATHER NORMALIZATION MECHANISM?

A. No. I believe that dead bands reduce the effectiveness of the Weather Normalization Mechanism and therefore reduce their values to both the Company and customers. The policy goal of the Weather Normalization Mechanism is reduce the revenues fluctuations associated with non-normal weather conditions. The dead band implicitly states that the policy goal of the Weather Normalization Mechanism is less important for smaller weather variation than significant weather variation.

VII. Conclusions

Q. PLEASE SUMMARIZE YOUR CONCLUSIONS AND RECOMMENDATIONS WITH REGARD TO PEOPLES' COST-OF-SERVICE STUDIES, CLASS REVENUES AND RATE DESIGN.

A. My conclusions and recommendations for the Company's cost-of-service studies, class revenues and rate design are as follows:

- The range of results from the Company's two cost-of-service studies should be accepted by the Commission as a guide to evaluate and set Peoples' class revenues and rate design in this proceeding;
- The Commission should accept the Company's proposed apportionment of non-gas revenues to its rate classes because it reasonably balances the various criteria that were

considered by the Company in the revenue apportionment process which included: (1) cost-of-service; (2) class contribution to present revenue levels; and (3) customer impact considerations; and

- The Commission should approve the rate design proposed by the Company because it reasonably satisfies the key rate design objectives I presented earlier in my testimony, including: (1) achieve fair and equitable rate levels that are reflective of the cost to serve; (2) avoid undue discrimination between and within rate classes; (3) rates should be stable, understandable, and provide customer choices; (4) create economically efficient pricing for natural gas delivery service; (5) rates should encourage energy conservation and energy efficiency; and (6) rates should allow a utility to recover its revenue requirement in a manner that maintains revenue stability, and minimizes year-to-year under or over collections.

Q. DOES THIS COMPLETE YOUR PREPARED TESTIMONY?

A. Yes. I reserve the right to submit supplemental testimony as additional issues arise during the course of this proceeding. Thank you.

WITNESS AREAS OF RESPONSIBILITY
(LIST OF SECTION)

Section	Subject Matter
53.53	
III-A-45	Explanation of any differences between the basis or procedure used in allocations of revenues, expenses, depreciation and taxes in the current rate case and that used in the prior rate case.
III-A-47	Schedule showing rate of return on facilities allocated to serve wholesale customers
IV-B-1	Cost of Service Studies under Present and Proposed Tariffs
IV-B-2	Statement of Testimony Describing the Complete Methodology of the Cost-of-Service Studies
IV-B-3	Complete Description and Back-Up Calculations for All Allocation Factors.
IV-B-7	Graph of present and proposed base rates on hyperbolic cross section paper.
IV-B-9	Cost Analysis Supporting Minimum Charges for All Rate Schedules.
IV-B-10	Cost analysis supporting demand charges for all tariffs which contain demand charges.
IV-B-12	Supply a tabulation of base rate bills for each rate schedule comparing the existing rates to proposed rates. The tabulation should show the dollar difference and the per cent increase or decrease.
Exhibit	
VI.III.COS.2	Detailed explanation describing how contributions in aid of construction and customer advances are reflected in the Company's cost of service study.
VI.III.COS.8	Company's rate design models and cost of service study on an IBM PC-compatible computer disk in Lotus 1-2-3-or Quattro format. If the models consist of more than one file, please include information on all files on the disk and what they contain. If not available in Lotus 1-2-3 or Quattro format, please provide in ASCII format.

VI.III.COS.19 Workpapers showing the development of each allocation factor reflected in the Company's cost of service study. Include a description of each allocation factor, all calculations performed to develop the allocators and all supporting documentation, studies or other information relied upon to determine the allocators.

VI.III.COS.20 All workpapers, calculations and supporting documentation for the functionalization and classification performed for the Company's cost of service study.

Section - 53.53	Exhibit
III.A.45	Ex. 13, Sch. 11 – Methodologies are fundamentally the same
III.A.47	Ex. 11, Sch. 9
IV.B.1	Ex. 11, Sch. 1
IV.B.2	Ex. 11, Sch. 2
IV.B.3	Ex. 11, Sch. 3
IV.B.7	Ex. 11, Sch. 7
IV.B.9	Ex. 11, Sch. 4 –
IV.B.10	Ex. 11, Sch. 5 –
IV.B.12	Ex. 11, Sch. 8 –
IV.B.19	Ex. 17, COS-19 -
IV.B.20	Ex. 17, COS-20 – See Exhibit 11, Schedule 1
Exhibit	
VI.III.COS.2	Ex. 17, COS-2
VI.III.COS.8	Ex. 17, COS-8
VI.III.COS.19	Ex. 17, COS-19
VI.III.COS.20	Ex. 17, COS-20

Peoples Natural Gas Company LLC
Design Day Method for the 12 Months Ending October 31, 2020
Minimum Customer Cost Analysis

Please see Exhibit 11, Sch 1, page 145-152.

Peoples Natural Gas Company LLC
Combined Divisions
Gathering Revenue Requirement Calcualtion
12 Months Ended September 30, 2025
Mains Classification: MINSYSTEM
Mains Allocation: Cust Avg/Design Day

Rate Base	
Plant in Service	
Intangible Plant	$4,063,013
Production Plant	$158,771,264
General Plant	$7,451,519
Total Plant in Service	$170,285,796
Depreciation Reserve	
Intangible Plant	$1,295,280
Production Plant	$59,495,813
General Plant	$2,747,500
Total Depreciation Reserve	$63,538,594
Other Rate Base Items	
Materials and Supplies	$168,496
Prepayments	$174,740
Cash Working Capital	$1,096,798
Deferred Income Taxes	$796,991
Total Other Rate Base Items	$2,237,025
Total Net Rate Base	$108,984,228
Return on Rate Base %	8.40%

Return on Rate Base $	$9,159,702
Expenses	
Natural Gas Production and Gathering	$13,550,312
Administrative & General	$3,089,661
Depreciation Expense	$5,062,606
Taxes Other Than Income Taxes	$2,120,165
Total Expenses	$23,822,744
Income Taxes @ Proposed Rates	$0
Total Gathering Cost of Service	$32,982,446

Gathering Service Revenues

At Present Rates	$6,995,675
At Proposed Rates (FPFTY)	$9,373,519

Peoples Natural Gas Company LLC
Combined Divisions
12 Months Ended September 30, 2025
Cost of Service Study Summary
Mains Classification: MINSYSTEM
Mains Allocation: Cust Avg/Design Day

RETURN AT CURRENT RATES

	Total	RES	SGS	MGS	LGS	LGS-Mainline
Total Oper. Rev. @ Current Rates	$833,215,508	$591,717,562	$81,729,812	$85,861,952	$58,801,838	$15,104,344
Other Income	$0	$0	$0	$0	$0	$0
O&M	$440,673,789	$321,289,428	$48,679,094	$41,088,276	$17,089,668	$12,527,324
Cust. Accts, Services, Sales Expense	$38,351,539	$33,084,340	$2,058,121	$1,496,598	$1,633,164	$79,316
A&G	$62,261,991	$46,142,724	$5,679,286	$5,469,999	$3,317,081	$1,652,901
Depreciation	$134,219,598	$102,574,883	$12,010,308	$11,367,459	$5,565,472	$2,701,476
Taxes Other Than Income	$15,353,167	$10,435,060	$1,440,286	$1,469,046	$1,224,956	$783,819
Income Before Income Taxes	$142,355,425	$78,191,127	$11,862,717	$24,970,574	$29,971,497	($2,640,491)
Income Taxes @ Current Rates	($91,344,434)	($50,172,477)	($7,611,885)	($16,022,733)	($19,231,648)	$1,694,309
Income For Return	$233,699,859	$128,363,604	$19,474,602	$40,993,307	$49,203,146	($4,334,800)
Rate Base @ Current Rates	$4,244,704,201	$3,217,320,670	$384,742,578	$379,906,653	$180,008,164	$82,726,138
Return @ Current Rates	5.51%	3.99%	5.06%	10.79%	27.33%	-5.24%

REVENUE REQUIRMENT AND REVENUES AT PROPOSED EQUALIZED RETURN

	Total	RES	SGS	MGS	LGS	LGS-Mainline
Base Rates Revenues @ Current Rates	$504,861,227	$347,866,631	$43,991,391	$57,024,004	$48,982,267	$6,996,935
Base Rate Revenue Increase	$173,737,629	$160,954,017	$16,332,423	$3,108,248	($16,257,547)	$9,600,488
Total Base Rate Revenue @ Proposed Rates	$678,598,857	$508,820,648	$60,323,814	$60,132,252	$32,724,719	$16,597,423
Rider Revenue @ Proposed Rates	($24,553,786)	($13,140,760)	($1,999,383)	($3,179,570)	($3,287,029)	($2,947,045)
Gas Revenues @ Proposed Rates	$317,688,724	$236,156,094	$37,306,901	$28,525,812	$8,705,460	$6,994,456
Gathering Revenues @ Proposed Rates	$9,373,519	$1,399,493	$485,052	$1,571,947	$3,083,557	$2,833,470
Forfited Discount/Late Fees @ Proposed Rates	$6,365,885	$5,703,590	$312,878	$231,627	$117,789	$0
Other Revenues @ Current/Proposed Rates	$1,768,640	$1,403,276	$245,883	$83,121	$20,333	$16,028
Total Revenues @ Proposed Rates	$989,241,838	$740,342,342	$96,675,145	$87,365,189	$41,364,830	$23,494,331
Total Revenue Requirement						
Production Expense	$10,565,157	($396,925)	$333,981	$2,083,088	$4,448,963	$4,096,050
Storage Expense	$3,690,773	$2,090,104	$381,729	$508,127	$394,662	$316,151
Transmission Expense	$10,183,620	$6,097,223	$1,114,304	$1,450,403	$895,489	$626,202
Distribution Expense	$98,545,624	$77,342,742	$9,542,375	$8,520,912	$2,645,114	$494,481
Customer Accounts, Services and Sales Exp.	$41,763,641	$36,330,538	$2,129,435	$1,567,290	$1,657,063	$79,316
Administrative & General Exp.	$62,261,991	$46,142,724	$5,679,286	$5,469,999	$3,317,081	$1,652,901
Taxes Other Than Income	$15,353,167	$10,435,060	$1,440,286	$1,469,046	$1,224,956	$783,819
Depreciation	$134,219,598	$102,574,883	$12,010,308	$11,367,459	$5,565,472	$2,701,476
Cost of Gas	$317,688,724	$236,156,094	$37,306,901	$28,525,812	$8,705,460	$6,994,456
Total Expenses Excluding Income Taxes	$694,272,295	$516,772,444	$69,938,605	$60,962,135	$28,854,260	$17,744,851
Income Taxes	($59,295,392)	($44,942,487)	($5,374,635)	($5,307,597)	($2,514,901)	($1,155,772)
Rate Base	$4,215,125,164	$3,194,821,726	$382,066,100	$377,300,571	$178,776,493	$82,160,274
Return on Rate Base %	8.405%	8.405%	8.405%	8.405%	8.405%	8.405%
Return on Rate Base	$354,264,935	$268,512,385	$32,111,175	$31,710,651	$15,025,471	$6,905,253
Total Revenue Requirement	**$989,241,838**	**$740,342,342**	**$96,675,145**	**$87,365,189**	**$41,364,830**	**$23,494,331**
Income For Return Reconciliatoin						
Total Income For Return	$354,264,935	$268,512,385	$32,111,175	$31,710,651	$15,025,471	$6,905,253
Return on Rate Base	$354,264,935	$268,512,385	$32,111,175	$31,710,651	$15,025,471	$6,905,253

Peoples Natural Gas Company LLC
Combined Divisions
12 Months Ended September 30, 2025
Cost of Service Study Summary
Mains Classification: DEMAND
Mains Allocation: Peak and Avg

RETURN AT CURRENT RATES

	Total	RES	SGS	MGS	LGS	LGS-Mainline
Total Oper. Rev. @ Current Rates	$833,215,508	$591,717,562	$81,729,812	$85,861,952	$58,801,838	$15,104,344
Other Income	$0	$0	$0	$0	$0	$0
O&M	$440,673,789	$310,408,080	$49,952,676	$46,903,913	$20,881,058	$12,528,063
Cust. Accts, Services, Sales Expense	$38,351,539	$33,084,340	$2,058,121	$1,496,598	$1,633,164	$79,316
A&G	$62,261,991	$41,596,398	$6,235,656	$7,900,983	$4,875,073	$1,653,881
Depreciation	$134,219,598	$90,572,207	$13,503,915	$17,775,780	$9,666,242	$2,701,453
Taxes Other Than Income	$15,353,167	$9,911,661	$1,504,070	$1,748,685	$1,404,884	$783,866
Income Before Income Taxes	$142,355,425	$106,144,876	$8,475,375	$10,035,992	$20,341,416	($2,642,234)
Income Taxes @ Current Rates	($91,344,434)	($68,109,407)	($5,438,348)	($6,439,741)	($13,052,366)	$1,695,428
Income For Return	$233,699,859	$174,254,283	$13,913,723	$16,475,733	$33,393,783	($4,337,663)
Rate Base @ Current Rates	$4,244,704,201	$2,793,718,574	$437,512,364	$606,069,689	$324,676,423	$82,727,151
Return @ Current Rates	5.51%	6.24%	3.18%	2.72%	10.29%	-5.24%

REVENUE REQUIRMENT AND REVENUES AT PROPOSED EQUALIZED RETURN

	Total	RES	SGS	MGS	LGS	LGS-Mainline
Base Rates Revenues @ Current Rates	$504,861,227	$347,866,631	$43,991,391	$57,024,004	$48,982,267	$6,996,935
Base Rate Revenue Increase	$173,737,629	$103,554,182	$23,387,976	$33,764,227	$3,428,942	$9,602,303
Total Base Rate Revenue @ Proposed Rates	$678,598,857	$451,420,813	$67,379,366	$90,788,231	$52,411,209	$16,599,237
Rider Revenue @ Proposed Rates	($24,553,786)	($13,140,760)	($1,999,383)	($3,179,570)	($3,287,029)	($2,947,045)
Gas Revenues @ Proposed Rates	$317,688,724	$236,156,094	$37,306,901	$28,525,812	$8,705,460	$6,994,456
Gathering Revenues @ Proposed Rates	$9,373,519	$1,399,493	$485,052	$1,571,947	$3,083,557	$2,833,470
Forfited Discount/Late Fees @ Proposed Rates	$6,365,885	$5,703,590	$312,878	$231,627	$117,789	$0
Other Revenues @ Current/Proposed Rates	$1,768,640	$1,403,276	$245,883	$83,121	$20,333	$16,028
Total Revenues @ Proposed Rates	$989,241,838	$682,942,507	$103,730,697	$118,021,168	$61,051,320	$23,496,146
Total Revenue Requirement						
Production Expense	$10,565,157	($396,925)	$333,981	$2,083,088	$4,448,963	$4,096,050
Storage Expense	$3,690,773	$2,090,104	$381,729	$508,127	$394,662	$316,151
Transmission Expense	$10,183,620	$6,097,223	$1,114,304	$1,450,403	$895,489	$626,202
Distribution Expense	$98,545,624	$66,461,394	$10,815,956	$14,336,550	$6,436,504	$495,220
Customer Accounts, Services and Sales Exp.	$41,763,641	$36,330,538	$2,129,435	$1,567,290	$1,657,063	$79,316
Administrative & General Exp.	$62,261,991	$41,596,398	$6,235,656	$7,900,983	$4,875,073	$1,653,881
Taxes Other Than Income	$15,353,167	$9,911,661	$1,504,070	$1,748,685	$1,404,884	$783,866
Depreciation	$134,219,598	$90,572,207	$13,503,915	$17,775,780	$9,666,242	$2,701,453
Cost of Gas	$317,688,724	$236,156,094	$37,306,901	$28,525,812	$8,705,460	$6,994,456
Total Expenses Excluding Income Taxes	$694,272,295	$488,818,695	$73,325,947	$75,896,717	$38,484,341	$17,746,595
Income Taxes	($59,295,392)	($39,023,173)	($6,112,026)	($8,467,945)	($4,536,461)	($1,155,787)
Rate Base	$4,215,125,164	$2,774,036,112	$434,484,950	$601,959,890	$322,482,925	$82,161,287
Return on Rate Base %	8.405%	8.405%	8.405%	8.405%	8.405%	8.405%
Return on Rate Base	$354,264,935	$233,146,985	$36,516,776	$50,592,396	$27,103,440	$6,905,338
Total Revenue Requirement	**$989,241,838**	**$682,942,507**	**$103,730,697**	**$118,021,168**	**$61,051,320**	**$23,496,146**
Income For Return Reconciliatoin						
Total Income For Return	$354,264,935	$233,146,985	$36,516,776	$50,592,396	$27,103,440	$6,905,338
Return on Rate Base	$354,264,935	$233,146,985	$36,516,776	$50,592,396	$27,103,440	$6,905,338

Base Rate Revenues

Rate	Revenues @ Current Rates	Cost of Service			Rate Design Target	Rate Design Proposed Revenues
		MinSys/ Design Day	Demand/ Peak&Avg	Mean		
RES-Base Rates	$347,866,631	$508,820,648	$451,420,813	$480,120,731	$480,120,731	$480,120,731
SGS-Base Rates	$43,991,391	$60,323,814	$67,379,366	$63,851,590	$63,851,590	$63,852,921
MGS-Base Rates	$57,024,004	$60,132,252	$90,788,231	$75,460,242	$75,460,242	$75,459,798
LGS-Base Rates	$48,982,267	$32,724,719	$52,411,209	$42,567,964	$52,169,360	$52,169,359
LGS-MAINLINE-Base Rates	$6,996,935	$16,597,423	$16,599,237	$16,598,330	$6,996,935	$6,996,935
Total	$504,861,227	$678,598,857	$678,598,857	$678,598,857	$678,598,857	$678,599,743

Overall Return

	Return @ Current Rates		Cost of Service - Return			Rate Design Target Return	Rate Design Proposed Revenues Return
	MinSystem/ Design Day	Demand/ Peak&Avg	MinSys/ Design Day	Demand/ Peak&Avg	Mean		
RES	4.0%	6.2%	8.405%	8.405%	8.405%	8.405%	8.405%
SGS	5.1%	3.2%	8.405%	8.405%	8.405%	8.405%	8.405%
MGS	10.8%	2.7%	8.405%	8.405%	8.405%	8.405%	8.405%
LGS	27.3%	10.3%	8.405%	8.405%	8.405%	8.405%	8.405%
LGS-MAINLINE	-5.2%	-5.2%	8.405%	8.405%	8.405%	8.405%	8.405%
Total	5.5%	5.5%	8.405%	8.405%	8.405%	8.405%	8.405%

Peoples Natural Gas Company LLC
Present and Proposed Rates

Please see Exhibit 11, Schedule 8 for the typical bill by rate class.

Peoples Natural Gas Company LLC
Residential Monthly Bill Comparison

Peoples Division

Month	Mcf Usage	Present Monthly Fixed Charge	Present Volumetric Charge	Proposed Monthly Fixed Charge	Proposed Volumetric Charge	Total Present Bill	Total Proposed Bill	Increase - $	Increase - 5
Jan	8.93	$ 15.75	$ 10.36	$ 21.50	$ 10.29	$ 108.23	$ 113.38	$ 5.15	4.8%
Feb	12.74	$ 15.75	$ 10.36	$ 21.50	$ 10.29	$ 147.73	$ 152.62	$ 4.90	3.3%
Mar	14.23	$ 15.75	$ 10.36	$ 21.50	$ 10.29	$ 163.14	$ 167.94	$ 4.80	2.9%
Apr	12.19	$ 15.75	$ 10.36	$ 21.50	$ 10.29	$ 141.95	$ 146.88	$ 4.93	3.5%
May	10.14	$ 15.75	$ 10.36	$ 21.50	$ 10.29	$ 120.75	$ 125.82	$ 5.07	4.2%
Jun	5.77	$ 15.75	$ 10.36	$ 21.50	$ 10.29	$ 75.48	$ 80.84	$ 5.36	7.1%
Jul	3.26	$ 15.75	$ 10.36	$ 21.50	$ 10.29	$ 49.47	$ 55.00	$ 5.53	11.2%
Aug	1.77	$ 15.75	$ 10.36	$ 21.50	$ 10.29	$ 34.05	$ 39.68	$ 5.63	16.5%
Sep	1.49	$ 15.75	$ 10.36	$ 21.50	$ 10.29	$ 31.16	$ 36.81	$ 5.65	18.1%
Oct	1.49	$ 15.75	$ 10.36	$ 21.50	$ 10.29	$ 31.16	$ 36.81	$ 5.65	18.1%
Nov	2.23	$ 15.75	$ 10.36	$ 21.50	$ 10.29	$ 38.87	$ 44.47	$ 5.60	14.4%
Dec	5.77	$ 15.75	$ 10.36	$ 21.50	$ 10.29	$ 75.48	$ 80.84	$ 5.36	7.1%
Total	80					$ 1,017.46	$ 1,081.10	$ 63.64	6.3%

	PRESENT RATES	PROPOSED RATES
PEOPLES GAS DIVISION	Rate	Rate
Monthly Service Charge	$ 15.75	$ 21.50
Rider DSIC	$ -	$ -
Rider TCJA	$ (1.2976)	$ (0.3502)
Rider Supplier Choice	$ (0.0012)	$ 0.0037
Base Cost of Gas	$ 3.9521	$ 3.9521
Rider AVC	$ -	$ 0.6835
Delivery Rate	$ 6.7743	$ 5.6304
Rider STAS	$ 0.0043	$ -
Rider MFC	$ 0.0967	$ 0.0869
Rider USR	$ -	$ -
Rider GPC	$ 0.0865	$ 0.0865
Rider DSIC	$ -	$ -
Rider TCJA	$ (0.5581)	$ (0.1506)
Total Rate per Mcf	$ 10.3558	$ 10.2887

Peoples Natural Gas Division

Month	Mcf Usage	Present Monthly Fixed Charge	Present Volumetric Charge	Proposed Monthly Fixed Charge	Proposed Volumetric Charge	Total Present Bill	Total Proposed Bill	Increase - $	Increase - 5
Jan	8.93	$ 14.24	$ 8.79	$ 20.51	$ 10.17	$ 92.71	$ 111.32	$ 18.61	20.1%
Feb	12.74	$ 14.24	$ 8.79	$ 20.51	$ 10.17	$ 126.23	$ 150.10	$ 23.87	18.9%
Mar	14.23	$ 14.24	$ 8.79	$ 20.51	$ 10.17	$ 139.31	$ 165.23	$ 25.93	18.6%
Apr	12.19	$ 14.24	$ 8.79	$ 20.51	$ 10.17	$ 121.32	$ 144.42	$ 23.10	19.0%
May	10.14	$ 14.24	$ 8.79	$ 20.51	$ 10.17	$ 103.34	$ 123.61	$ 20.28	19.6%
Jun	5.77	$ 14.24	$ 8.79	$ 20.51	$ 10.17	$ 64.92	$ 79.16	$ 14.24	21.9%
Jul	3.26	$ 14.24	$ 8.79	$ 20.51	$ 10.17	$ 42.85	$ 53.62	$ 10.77	25.1%
Aug	1.77	$ 14.24	$ 8.79	$ 20.51	$ 10.17	$ 29.77	$ 38.48	$ 8.71	29.3%
Sep	1.49	$ 14.24	$ 8.79	$ 20.51	$ 10.17	$ 27.32	$ 35.65	$ 8.33	30.5%
Oct	1.49	$ 14.24	$ 8.79	$ 20.51	$ 10.17	$ 27.32	$ 35.65	$ 8.33	30.5%
Nov	2.23	$ 14.24	$ 8.79	$ 20.51	$ 10.17	$ 33.86	$ 43.21	$ 9.36	27.6%
Dec	5.77	$ 14.24	$ 8.79	$ 20.51	$ 10.17	$ 64.92	$ 79.16	$ 14.24	21.9%
Total	80					$ 873.86	$ 1,059.61	$ 185.76	21.3%

	PRESENT RATES	PROPOSED RATES
PEOPLES NATURAL GAS DIVISION	Rate	Rate
Monthly Service Charge	$ 14.50	$ 21.50
Rider DSIC	$ 0.7250	$ -
Rider TRS	$ (0.9920)	$ (0.9920)
Rider Supplier Choice	$ 0.0042	$ 0.0037
Base Cost of Gas	$ 3.9521	$ 3.9521
Rider AVC	$ 0.7515	$ 0.6835
Delivery Rate	$ 3.9608	$ 5.6304
Rider STAS	$ 0.0032	$ -
Rider MFC	$ 0.0967	$ 0.0869
Rider USR	$ -	$ -
Rider GPC	$ 0.0865	$ 0.0865
Rider Rate Credit	$ -	$ -
Rider DSIC	$ 0.2078	$ -
Rider TRS	$ (0.2710)	$ (0.2710)
Total Rate per Mcf	$ 8.7876	$ 10.1684