

**BEFORE THE STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES**

IN THE MATTER OF THE RATE UNBUNDLING)	BPU Docket Nos.
FILINGS BY GAS PUBLIC UTILITIES)	GX99030121
PURSUANT TO SECTION 10, SUBSECTION A)	GO99030122
OF THE ELECTRIC DISCOUNT AND)	GO99030123
ENERGY COMPETITION ACT OF 1999)	GO99030124
)	GO99030125
ELIZABETHTOWN GAS COMPANY)	
NEW JERSEY NATURAL GAS COMPANY)	
PUBLIC SERVICE ELECTRIC & GAS COMPANY)	
SOUTH JERSEY GAS COMPANY)	

DIRECT TESTIMONY OF

RICHARD GALLIGAN AND JEROME MIERZWA

ON

**CAPACITY ASSIGNMENT;
RELIABILITY; AND
STRANDED COSTS POLICY**

Filed on Behalf of

THE NEW JERSEY DIVISION OF THE RATEPAYER ADVOCATE

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COMPANY)	BPU DOCKET NO. GO99030124
SOUTH JERSEY GAS COMPANY)	BPU DOCKET NO. GO99030125

DIRECT TESTIMONY OF RICHARD A. GALLIGAN
AND JEROME D. MIERZWA

I. Introduction

1 Q. PLEASE STATE YOUR NAMES AND BUSINESS ADDRESS.

2 A. Our names are Richard A. Galligan and Jerome D. Mierzwa. We are both principals and
3 Vice Presidents with Exeter Associates, Inc. Our business address is 12510 Prosperity
4 Drive, Silver Spring, Maryland 20904. Exeter specializes in providing public utility-
5 related consulting services.

6 Q. MR. GALLIGAN, PLEASE DESCRIBE YOUR EDUCATIONAL
7 BACKGROUND.

8 A. I have two degrees from the University of Wisconsin, including a Master's degree in
9 economics and, in addition, I completed two years of graduate study at the University of
10 Minnesota, where I fulfilled all of the course work requirements for the Ph.D. degree.

1 Q. MR. GALLIGAN, PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE.

2 A. I have taught economics at the University of Minnesota, the University of Wisconsin,
3 Mankato State University, and Webster College. In these positions, I taught a wide range
4 of courses covering all aspects of economics.

5 In January 1975, I joined the staff of the Minnesota Public Service Commission at the
6 commencement of that Commission's responsibility over gas and electric utility operations
7 in the State of Minnesota. From 1976 to 1984, I was an economic consultant specializing
8 in public utility rate regulation of gas, electric and telephone utilities.

9 From 1984 until 1987, I was Director of the Utilities Division at the Iowa State
10 Commerce Commission and Executive Director of the Texas Public Utility Commission.
11 At Iowa, my responsibilities included the management and administration of all Utilities
12 Division activities regarding the regulation of gas, electric and telephone utilities operating
13 in the State of Iowa under Iowa State Commerce Commission jurisdiction. At the Texas
14 Public Utility Commission, I was responsible for the management and day-to-day
15 administration of that Commission's regulatory activities regarding all aspects of its
16 jurisdictional responsibilities. I also served briefly as General Manager of Rates &
17 Regulatory Affairs at Gas Company of New Mexico before assuming my present position
18 at Exeter Associates, Inc. in October 1987.

19 Q. MR. GALLIGAN, HAVE YOU PREVIOUSLY TESTIFIED IN REGULATORY
20 PROCEEDINGS ON UTILITY RATES?

21 A. Yes. I have previously presented testimony on more than 60 occasions before the Federal
22 Energy Regulatory Commission ("FERC"), the public utility commissions of Alabama,
23 California, Connecticut, Delaware, the District of Columbia, Florida, Georgia, Idaho, Illi-
24 nois, Kansas, Louisiana, Maryland, Michigan, Minnesota, Missouri, Montana, Nevada,
25 New Hampshire, New Jersey, North Carolina, Pennsylvania, Rhode Island, Virginia,

1 South Carolina, South Dakota, Tennessee, Texas, Utah and Virginia, as well as before this
2 Commission. A detailed statement of my qualifications appears as Appendix A to this
3 testimony.

4 Q. MR. MIERZWA, PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND
5 AND EXPERIENCE.

6 A. I graduated from Canisius College in Buffalo, New York, in 1981 with a Bachelor of
7 Science Degree in Marketing. In 1985, I received a Masters Degree in Business
8 Administration with a concentration in finance, also from Canisius College. In July 1986,
9 I joined National Fuel Gas Distribution Corporation (“NFG Distribution”) as a
10 Management Trainee in the Research and Statistical Services Department (“RSS”). I was
11 promoted to Supervisor RSS in January 1987. While employed with NFG Distribution, I
12 conducted various financial and statistical analyses related to the company’s market
13 research activity and state regulatory affairs. In April 1987, as part of a corporate
14 reorganization, I was transferred to National Fuel Gas Supply Corporation’s (“NFG
15 Supply”) rate department where my responsibilities included utility cost of service and rate
16 design analysis, expense and revenue requirement forecasting and activities related to
17 federal regulation. I was also responsible for preparing NFG Supply’s Purchase Gas
18 Adjustment (“PGA”) filings and developing interstate pipeline and spot market supply gas
19 price projections. These forecasts were utilized for internal planning purposes as well as
20 in NFG Distribution’s purchased gas cost proceedings.

21 In April 1990, I accepted a position as a Utility Analyst with Exeter Associates, Inc.
22 In December 1992, I was promoted to Senior Regulatory Analyst. Effective April 1,
23 1996, I became a principal of Exeter Associates. Since joining Exeter Associates, I have
24 specialized in evaluating the gas purchasing practices and policies of natural gas utilities,
25 class cost of service and rate design analysis, sales and rate forecasting, performance-

1 based incentive regulation, revenue requirement analysis, and the evaluation of residential
2 customer choice transportation programs and service restructuring proposals.

3 Q. MR. MIERZWA, HAVE YOU PREVIOUSLY TESTIFIED IN REGULATORY
4 PROCEEDINGS ON UTILITY RATES?

5 A. Yes. I have provided testimony on more than 60 occasions in proceedings before the
6 Federal Energy Regulatory Commission (“FERC”), and utility regulatory commissions in
7 Delaware, Georgia, Illinois, Indiana, Louisiana, Montana, Nevada, Ohio, Pennsylvania,
8 Rhode Island, Texas and Virginia. A detailed statement of my qualifications appears as
9 Appendix B to this testimony.

10 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

11 A. Exeter Associates, Inc. was retained by the Division of Ratepayer Advocate (“Ratepayer
12 Advocate”) to assist in evaluating the restructuring filings made by New Jersey gas public
13 utilities pursuant to Section 10, Subsection A, of the Electric Discount and Energy
14 Competition Act of 1999 (“Act”). The “Order Establishing Procedures” issued by the
15 Board of Public Utilities (“Board”) on March 17, 1999, required intervenor testimony in
16 the restructuring proceedings to be presented in two sections. The first section is to
17 address generic policy and methodological issues. The second is to address specific
18 numerical issues, such as specific proposed rates applicable to individual gas public
19 utilities. This testimony addresses generic policy and methodological issues.

20 Q. PLEASE SUMMARIZE YOUR FINDINGS AND CONCLUSIONS.

21 A. Based upon our review and analysis, we recommend that the Board adopt the following
22 findings and conclusions:

- The Board should adopt a general policy which promotes voluntary capacity assignment to third-party suppliers of the pipeline capacity and other gas supply resources a utility no longer needs to serve its remaining gas supply customers.

- 1 • Mandatory capacity assignment is inconsistent with the goals of the Act, because it
2 restricts the ability of third-party suppliers to determine and optimize their own
3 capacity arrangements and related costs.
- 4 • There is no observed or expected need to rely on a mandatory capacity assignment
5 program to maintain system reliability. To assure reliability, the utilities should use
6 other available tools including operational tools (such as short-term purchases,
7 storage services and operational flow orders), economic penalties, and “comparable
8 capacity” provisions, which should be exercised under appropriate Board oversight.
9 Mandatory capacity assignment should be permitted as a means of assuring reliability
10 only as a last resort, if a utility demonstrates that unique operating conditions exist
11 which warrant mandatory assignment.
- 12 • Gas utilities should not secure backup pipeline capacity and gas supply arrangements
13 to protect against the failure of a third-party supplier to deliver gas as required.
- 14 • Utilities should be required to pursue all available means for mitigating stranded costs,
15 before mandatory assignment is considered as a means for recovering stranded costs.
16 A gas utility seeking mandatory assignment or other means of recovering stranded
17 costs should be required to file a petition in which it demonstrates that it has pursued
18 all available measures to avoid and mitigate stranded costs.
- 19 • Elizabethtown Gas Company (“Elizabethtown”) and South Jersey Gas Company
20 (“South Jersey”) have not demonstrated that they will experience stranded capacity
21 costs if their proposals for mandatory capacity assignment are rejected by the Board;
- 22 • Gas utilities should not be permitted to recover stranded capacity costs through rates
23 for Basic Gas Supply Service; and
- 24 • Thresholds should be established to determine at what point a gas utility could
25 potentially begin to experience stranded capacity costs.

26 **II. Access to Interstate Pipeline Capacity**

27 Q. PLEASE EXPLAIN THE ROLE OF INTERSTATE PIPELINE CAPACITY IN
28 THE GAS SUPPLY FUNCTION.

29 A. In the past, in a traditional regulated bundled gas utility environment, a gas utility typically
30 reserved firm interstate gas pipeline capacity in order to provide retail sales service in its
31 franchise service territory. This capacity was generally utilized to transport gas from the
32 producing regions to points of connection with the gas utility’s distribution system
33 (citygates).

1 In a competitive environment, if ratepayers are to have meaningful choices, third-
2 party suppliers need access to interstate pipeline transportation capacity in order to ship
3 gas from the producing regions to the gas utility's citygate, providing gas at the proper
4 time and in the proper quantities, so that they may serve their retail customers in the
5 utility's service territory. In order to provide full service to the ratepayer in the retail
6 market, third-party suppliers also need access to other services provided by interstate
7 pipeline companies, such as storage services.

8 Q. WHY IS CAPACITY AVAILABILITY A FACTOR IN THE DEVELOPMENT OF
9 A COMPETITIVE MARKETPLACE FOR GAS SUPPLY SERVICE?

10 A. Unlike the supply of gas at the wellhead, the market for interstate pipeline transportation
11 and storage services is not a fully competitive market. Since there are only a limited
12 number of interstate gas pipelines serving the State and only a finite amount of gas storage
13 space, there are times when the regulated acquisition price will not produce a balance
14 between the available supply and the amount demanded in the marketplace. Third-party
15 suppliers therefore need access to these limited resources so that they may provide a full
16 range of gas supply services for their retail customers. However, third-party suppliers also
17 need to be able to make their own capacity arrangements if more economic alternatives
18 are available.

19 Q. WHAT IS CAPACITY ASSIGNMENT?

20 A. Capacity assignment refers to the transfer of a gas utility's interstate pipeline capacity to a
21 third-party, either the customer directly (for instance, in the case of a large industrial
22 customer) or to an alternative supplier. The gas utility assigning the capacity might
23 specify the terms and conditions of the assignment. For example, capacity might be
24 assigned on a recallable or non-recallable basis. Capacity assigned subject to recall can be

1 taken back by a gas utility under specified conditions, such as a specific temperature, or
2 constraints that can occur during extremely cold weather.

3 Capacity can be assigned either on a voluntary or on a mandatory basis. Voluntary
4 assignment means that the third-party supplier has the option to accept or decline the
5 assignment. As explained later in our testimony, gas utilities should be required to offer
6 voluntary capacity assignment to customers or third-party suppliers serving customers on
7 their systems. Under a mandatory capacity assignment program, the customer or third-
8 party supplier must accept the assignment.

9 Q. WHAT DOES THE ACT STATE WITH RESPECT TO CAPACITY
10 ASSIGNMENT?

11 A. The Act does not specifically address capacity assignment. However, the Act states that
12 the Legislature has found and declares that it is the policy of the State of New Jersey to
13 place greater reliance on competitive markets and that competition will promote
14 efficiency, reduce regulatory delay, and foster productivity and innovation.

15 Q. HOW CAN CAPACITY ASSIGNMENT PROMOTE COMPETITION IN THE
16 PROVISION OF NATURAL GAS SERVICE TO NEW JERSEY RATEPAYERS?

17 A. Utilities control a significant portion of the limited capacity resources available to deliver
18 gas to New Jersey. As explained above, third-party suppliers need access to these limited
19 resources so that they may provide gas supply services to their retail customers. As
20 customers begin to choose other gas suppliers, utilities are likely to have pipeline capacity
21 and other gas supply resources that are not needed to provide gas supply service to the
22 utility's gas sales customers. These resources should be offered to the utility's

1 distribution customers and to third-party suppliers that serve them before they are offered to
2 anyone else, especially an affiliate of the utility. The utility's affiliate should be permitted to
3 participate in any such offering only on a non-discriminatory basis and to the extent it is a supplier
4 to the utility's distribution service customers.

5 Q. CAN YOU BE MORE SPECIFIC ABOUT THE TYPES OF RESOURCES TO
6 WHICH THIS REQUIREMENT SHOULD APPLY?

7 A. At present, it would apply principally to pipeline firm transportation that a utility no longer
8 needs as some of its customers switch from the utility's gas supply service to alternative
9 suppliers. As the utilities begin to offer other service options and allow third-party
10 suppliers to provide balancing services, this requirement would also apply to any storage
11 or other balancing resources no longer needed by the utility.

12 Q. IN WHAT SPECIFIC CIRCUMSTANCES WOULD THIS REQUIREMENT
13 APPLY?

14 A. It would apply whenever a utility has pipeline capacity or other gas supply resources that
15 it no longer needs to serve its remaining sales customers. The existence of available
16 capacity would be presumed whenever a utility is considering a long-term or permanent
17 release of capacity, or turning it back to the pipeline. The requirement would also apply
18 when a utility was considering assigning that capacity to some other entity, especially an
19 affiliate.

20 Q. WHAT SHOULD A UTILITY DO WHEN ONE OF THESE CIRCUMSTANCES
21 ARISES?

22 A. It should post the availability of the capacity or other gas supply resource on its own
23 electronic bulletin board or other medium for communicating with its customers and third-
24 party suppliers. Capacity offered to third-party suppliers should be priced at the utility's
25 weighted average cost of capacity.

1 Q. ARE YOU ADVOCATING THAT GAS UTILITIES BE REQUIRED TO OFFER
2 PIPELINE CAPACITY TO ANY DISTRIBUTION CUSTOMER OR THIRD-
3 PARTY SUPPLIER DESIRING IT?

4 A. No. If utilities were required to provide pipeline capacity to all distribution customers and
5 third-party suppliers desiring it, the utilities might find themselves in the position of having
6 to acquire additional capacity merely to provide it to others. We are recommending
7 merely that distribution customers and third-party suppliers should have the first
8 opportunity to acquire any capacity that the utility already has but no longer needs to
9 serve its system supply requirements.

10 Q. IS THERE AN ECONOMIC RATIONALE FOR THIS POLICY?

11 A. Yes. The market for pipeline capacity is imperfect. Because of these imperfections,
12 preferred initial access to capacity offerings does have value, and it is appropriate that this
13 value be conveyed to the utility's customers in the situation we have described, either
14 directly or through the third-party suppliers as they are given the initial opportunity to bid
15 on available resources.

16 Q. HAVE ANY NEW JERSEY UTILITIES PROPOSED MANDATORY CAPACITY
17 ASSIGNMENT?

18 A. Yes. Elizabethtown and South Jersey have proposed mandatory capacity assignment.
19 Elizabethtown is proposing that third-party suppliers must accept an assignment of the
20 Company's interstate pipeline transportation capacity, based upon their average annual
21 delivery requirements.

22 South Jersey is proposing a form of mandatory assignment. South Jersey proposes to
23 continue to contract for "backup" capacity sufficient to meet the requirements of all of its
24 customers who choose to buy gas from third-party suppliers. Customers are given the
25 option of either taking an assignment of capacity or declining the assignment but still being

1 obligated to pay the projected net costs of the capacity offered for assignment. South
2 Jersey's assignment procedures can be characterized as mandatory capacity assignment
3 since customers would have to pay for the capacity needed to serve them, whether or not
4 they elected to take assignment.

5 Q. IS MANDATORY CAPACITY ASSIGNMENT CONSISTENT WITH THE
6 GOALS OF THE RESTRUCTURING ACT AND THE DEVELOPMENT OF A
7 COMPETITIVE GAS SUPPLY MARKET?

8 A. No, it is not. In a competitive market, customers and their agents such as third-party
9 suppliers attempt to procure resources in varying amounts under competitively determined
10 terms and condition, so as to minimize their cost of providing service. As third-party
11 suppliers succeed in lowering their costs of providing service by maximizing the use of
12 their resources, competition will ensure that these cost reductions will be passed on to
13 ratepayers. Capacity and gas supply commodity costs, including storage, represent the
14 most significant costs of providing natural gas service, usually anywhere from 60 to 70
15 percent of total costs. Requiring customers or third-party suppliers to accept an
16 assignment of capacity, or mandatory assignment, restricts their ability to determine and
17 optimize their own capacity arrangements and related costs. As a result, contrary to the
18 goals set forth in the Act, reliance on competitive markets is reduced and development of
19 a competitive gas marketplace is delayed. The New York Public Service Commission
20 found that the mandatory assignment of capacity is an impediment to the growth of the
21 competitive gas supply market and in a recent decision eliminated their previous
22 requirement of mandatory capacity assignment and adopted voluntary assignment.¹

¹Policy Statement Concerning the Future of the Natural Gas Industry in New York State and Order Terminating Capacity Assignment, State of New York Public Service Commission Case Nos. 93-G-0932 and 97-G-1380 (November 3, 1998).

1 Mandatory capacity assignment should be permitted only under the very limited conditions
2 described below.

3 Q. WHAT JUSTIFICATIONS HAVE BEEN OFFERED BY THE GAS UTILITIES
4 PROPOSING MANDATORY ASSIGNMENT?

5 A. The utilities are proposing mandatory assignment as a means of assuring reliable service,
6 and avoiding stranded costs.

7 Q. TURNING FIRST TO RELIABILITY, WHAT CONCERN HAVE THE
8 UTILITIES RAISED?

9 A. The reliability issue relates to having sufficient gas supplies available to serve customers.
10 Although there is ample gas supply available, even during peak times, that is not the case
11 for the capacity which is required to deliver gas supplies. If there is insufficient capacity
12 to deliver gas to a utility, reliability may be threatened. A gas utility needs to maintain
13 flows of gas across its system commensurate with usage by its customers. As customers
14 use gas, gas is withdrawn from the system. Normally, the gas that is used must be
15 replaced continuously in order to maintain the line pressure needed to effect continuing
16 deliveries.² When a gas utility provides bundled sales service, the utility arranges for the
17 delivery of gas supplies to its system. These arrangements typically consist of purchasing
18 gas in a producing region and the transportation of that gas by interstate pipelines to the
19 utility's system. In an unbundled competitive environment, third-party suppliers share
20 responsibility for arranging the delivery of gas supplies to the utility's system. The failure
21 by a third-party supplier to have delivered to a utility adequate gas supplies would
22 normally necessitate an affirmative response by the utility, probably on short notice, to
23 maintain reliability. Failure by the utility to take action to replace any third-party supplier

²To a certain extent, lines can be "packed" with gas which can then be utilized as either a source of gas which need not immediately be replaced, or utilized to provide some minimal response time when increased deliveries to the gas utility are required.

1 gas delivery deficiency would adversely affect system reliability. The reliability of the gas
2 supply and delivery system is of critical importance in a State where a significant number
3 of residents rely on gas as their primary fuel for heat during winter.

4 Q. WHY DO ELIZABETHTOWN AND SOUTH JERSEY PROPOSE MANDATORY
5 ASSIGNMENT FOR RELIABILITY?

6 A. Elizabethtown and South Jersey believe that they must either maintain, or have available,
7 capacity sufficient to meet all of the requirements of their customers who have chosen
8 third-party suppliers. These gas utilities believe that third-party suppliers cannot be relied
9 upon to acquire the interstate pipeline capacity resources necessary to supply gas at peak
10 times to maintain system reliability, as well as to maintain adequate pressure. These
11 utilities believe that economic penalties are not sufficient to ensure third-party supplier
12 performance, although both of them have penalty provisions within their tariffs. It is for
13 these stated reasons that Elizabethtown and South Jersey are proposing mandatory
14 capacity assignment (or the equivalent thereof). Elizabethtown's and South Jersey's
15 mandatory assignment programs are inconsistent with reliance on the new competitive
16 environment mandated by the Act to provide reliable delivery of gas supplies
17 commensurate with pipeline delivery requirements. Their proposed mandatory capacity
18 assignment plans serve to preserve their existing function as purchaser of pipeline capacity
19 when that function should be transitioned to third-party suppliers.

20 Q. ARE THERE TOOLS AVAILABLE TO GAS UTILITIES TO ENSURE
21 SYSTEM RELIABILITY?

22 A. Yes. Gas utilities maintain an arsenal of tools to protect system reliability. These tools
23 include short-term (*i.e.*, daily) gas supply purchases, delivered under the gas utility's

1 interstate pipeline capacity or purchased on a delivered-to-system, or citygate, basis;
2 storage services; no-notice service; use of peak-shaving facilities, such as propane-air or
3 LNG facilities; the recall of released interstate pipeline capacity under certain conditions;
4 issuance of operational flow orders, *i.e.*, strictly limiting usage by transportation customers
5 to deliveries arriving on behalf of that customer; and required consumption cut-backs,
6 usually consistent with an approved curtailment plan.

7 In addition to the tools mentioned above upon which gas utilities rely, the new
8 marketplace should provide important carrot-and-stick incentives for third-party suppliers
9 to perform responsibly and deliver gas supplies necessary to maintain system reliability.
10 For example, third-party suppliers which fail to perform may be assessed penalty charges
11 and may be denied the ability to continue to serve customers. In short, gas utilities
12 maintain an array of tools to maintain the system reliability function, and many of the same
13 tools and even more tools exist, to meet this responsibility in an unbundled environment.

14 Q. WHAT PROVISIONS HAVE BEEN PROPOSED OR ADOPTED BY THE FOUR
15 NEW JERSEY GAS UTILITIES, OTHER THAN MANDATORY CAPACITY
16 ASSIGNMENT, TO ENSURE THAT THIRD-PARTY SUPPLIERS SERVING
17 RESIDENTIAL CUSTOMERS DELIVER GAS SUPPLIES ADEQUATE TO
18 MAINTAIN DISTRIBUTION SYSTEM RELIABILITY?

19 A. Under its existing customer choice program, New Jersey Natural Gas Company (“New
20 Jersey Natural”) does not require third-party suppliers to accept an assignment of capacity
21 to ensure adequate gas supplies are delivered to its system by third-party suppliers.
22 However, third-party suppliers are assessed substantial penalty charges if they fail to
23 deliver gas as required. To date, third-party suppliers have responded to these economic
24 incentives and delivered gas as required under New Jersey Natural’s customer choice

1 program. New Jersey Natural has proposed no changes to its existing transportation
2 program to require third-party suppliers to deliver required gas supplies.

3 Like New Jersey Natural, Public Service Electric & Gas Company (“Public Service”)
4 is not requiring third-party suppliers to accept an assignment of capacity to ensure
5 adequate gas supplies are delivered to its system by the third-party suppliers. However,
6 Public Service is not offering to make capacity available to customers choosing
7 transportation service. Under its existing program, third-party suppliers are assessed
8 significant penalties and may be suspended from Public Service’s program if they fail to
9 deliver gas as required. To date, third-party suppliers have delivered gas as required and
10 Public Service is not proposing to change its existing program.

11 Elizabethtown and South Jersey have similar penalty provisions in their proposals, but
12 nevertheless propose mandatory capacity assignment. To ensure that third-party suppliers
13 have an economic incentive to deliver gas as required, Elizabethtown is proposing to
14 assess third-party suppliers substantial penalty charges if they fail to deliver gas as
15 required. Third-party suppliers may be suspended from Elizabethtown’s program for
16 failing to deliver gas as required.

17 Under South Jersey’s existing program, third-party suppliers are assessed substantial
18 penalty charges and may be suspended from South Jersey’s program if they fail to deliver
19 gas supplies as required. Further, Elizabethtown proposes to recall the assigned capacity
20 and arrange for the delivery of gas to its system under the recalled capacity if a third-party
21 supplier fails to deliver gas as required.

22 Q. ARE THERE OTHER PROVISIONS WHICH GAS UTILITIES CAN ADOPT TO
23 ASSURE THAT THIRD-PARTY SUPPLIERS WILL ACQUIRE THE CAPACITY
24 RESOURCES NECESSARY TO MAINTAIN SYSTEM RELIABILITY OTHER
25 THAN THE MANDATORY ASSIGNMENT OF CAPACITY?

1 A. Yes. The Board can require that third-party suppliers demonstrate they have assembled
2 “comparable capacity,” or capacity that reasonably compares to the reliability of the
3 utility’s existing capacity for effectuating deliveries consistent with scheduled gas
4 requirements under each utility’s customer choice program. The utilities’ tariffs currently
5 have provisions that require distribution customers to have adequate delivery capacity.

6 For example, one type of capacity may be reasonable when third-party suppliers are
7 required to deliver a constant amount of gas each day of a month, and another type of
8 capacity may be required when third-party suppliers are required to vary the quantity of
9 gas delivered each day. “Comparable capacity” provisions would require third-party
10 suppliers to demonstrate that they have reserved capacity which is the functional
11 equivalent of the capacity the gas utility utilized to serve converting customers (i.e., same
12 primary receipt points, flexibility, line pressures). In addition, if a third-party supplier
13 serving the customers of a gas utility elects to no longer serve those customers, it can be
14 required to give the gas utility the opportunity to take assignment of that capacity. Such
15 provisions would enhance the ability of gas utilities to perform their function as the
16 supplier of last resort and maintain system reliability. Elizabethtown has indicated that
17 comparable capacity is a concept which it has no objection to exploring (RAR-E-UN-87)
18 (Exhibit RAG/JDM-1).

19 Q. HAVE OTHER GAS UTILITIES ADOPTED THE CONCEPT OF COMPARABLE
20 CAPACITY?

21 A. Yes. In Pennsylvania, the Peoples Natural Gas Company recently adopted comparable
22 capacity provisions to ensure that third-party suppliers secure the interstate pipeline
23 capacity necessary to maintain system reliability. In New York, gas utilities can require

1 third-party suppliers to demonstrate that they have reserved sufficient interstate pipeline
2 capacity to serve their customers. Also, financial integrity standards for third-party
3 suppliers assist in ensuring reliability of gas delivery.

4 Q. SHOULD EACH GAS UTILITY BE REQUIRED TO ADOPT COMPARABLE
5 CAPACITY PROVISIONS?

6 A. No. Under the Act, gas utilities function as the supplier of last resort and are responsible
7 for maintaining system reliability. If a gas utility, such as New Jersey Natural or Public
8 Service, believes that the structure of its residential transportation program will ensure
9 reliability, the Board should not require that utility to adopt comparable capacity
10 provisions. If a gas utility, such as Elizabethtown or South Jersey, believes that third-
11 party suppliers cannot be relied upon to acquire the interstate pipeline capacity resources
12 necessary to maintain system reliability, the Board could require that those utilities adopt
13 comparable capacity provisions.

14 Q. SHOULD GAS UTILITIES SECURE BACK-UP PIPELINE CAPACITY AND
15 GAS SUPPLY ARRANGEMENTS TO PROTECT AGAINST THE FAILURE OF
16 A THIRD-PARTY SUPPLIER TO DELIVER GAS AS REQUIRED UNDER A
17 CUSTOMER CHOICE PROGRAM?

18 A. No. Firm interstate pipeline capacity is expensive. Only when spread over sufficient
19 annual volumes will the average cost of this component of service become reasonable.
20 Under a comparable capacity program, it is the third-party supplier that undertakes this
21 responsibility. The comparable capacity requirements, along with a system of economic
22 penalties, results in third-party suppliers having the capacity wherewithal to effectuate
23 deliveries, while at the same time creating the incentives to third-party performance. A
24 utility back-up requirement essentially requires paying for capacity twice, once by the
25 third-party supplier directly to the interstate pipeline, and then again to the utility for

1 backup capacity. Obviously this is duplicative and thereby twice as expensive, but it also
2 presumes the marketplace cannot be relied upon to channel resources to their highest and
3 best use. Such a policy would be antithetical to the movement toward greater reliance on
4 the competitive market, expressly mandated by the Act.

5 Q. HOW CAN A GAS UTILITY BE ASSURED THAT IT CAN OBTAIN GAS
6 SUPPLIES IN THE EVENT THAT A THIRD-PARTY SUPPLIER FAILS TO
7 DELIVER GAS AS REQUIRED?

8 A. As mentioned above, delivery of gas supplies can be effectuated through the use of
9 storage services, no-notice service, and various peak-shaving operations. In addition, gas
10 supplies can routinely be purchased on a daily basis, both in the producing regions and on
11 a delivered-to-citygate basis. Today's gas acquisition market is structured to channel gas
12 supplies to those who most highly value that gas (i.e., are willing to pay for it.) This will
13 ensure that gas supplies will be available in the event that a third-party supplier fails to
14 perform.

15 Q. HOW WOULD THE COSTS ASSOCIATED WITH THESE PURCHASES BE
16 RECOVERED?

17 A. Costs incurred to purchase replacement supplies can be recovered through recovery of
18 damages from third-party suppliers which failed to perform. Pricing mechanisms designed
19 to recover the costs of third-party supplier failures to deliver gas as required are common.
20 Creditworthiness requirements for third-party suppliers to be included in the utilities'
21 agreements with suppliers will also assure cost recovery.

22 Q. SHOULD OTHER ECONOMIC INCENTIVES ALSO BE IMPLEMENTED TO
23 MAINTAIN SYSTEM RELIABILITY?

24 A. Yes. Strong economic incentives, such as penalty charges, and moreover, the potential
25 that a third-party supplier may be prohibited from continuing to serve customers at all,

1 make it more economically advantageous to perform than not, and further alleviate the
2 need for mandatory capacity assignment.

3 Q. ARE GAS UTILITIES IN OTHER JURISDICTIONS RELYING ON ECONOMIC
4 INCENTIVES TO MAINTAIN SYSTEM RELIABILITY?

5 A. Yes. Gas utilities in Maryland, Ohio, New York and Virginia have elected not to adopt
6 mandatory capacity assignment and rely on economic incentives to maintain system
7 reliability. In New York, the Commission specifically rejected mandatory capacity
8 assignment after a three-year trial, on the grounds that it impeded the development of a
9 competitive gas marketplace.

10 Q. DO YOU HAVE ANY RECOMMENDATIONS AS TO HOW THE RELIABILITY
11 MEASURES YOU RECOMMEND SHOULD BE ADMINISTERED?

12 A. Yes. Utilities will be competing against third-party suppliers and, therefore, should not be
13 given unsupervised discretion to implement these provisions. Standards for comparable
14 capacity, cost recovery for defaults, creditworthiness, and monetary and other penalties
15 should be clearly defined by the Board before the advent of full retail competition. The
16 utilities' application of these provisions should be subject to review by the Board by means
17 of an expeditious complaint procedure. Furthermore, no third-party supplier should be
18 suspended, either on a permanent or temporary basis, without a Board Order.

19 Q. SHOULD MANDATORY ASSIGNMENT OF CAPACITY TO THIRD-PARTY
20 SUPPLIERS BE USED TO MEET A GAS UTILITY'S OBLIGATION OF
21 SUPPLIER OF LAST RESORT AND TO MAINTAIN SYSTEM RELIABILITY?

22 A. No. As discussed above, New Jersey gas utilities are retaining operational tools,
23 including tools such as storage services, operational flow orders, spot market purchases,
24 and various penalty provisions, to assure system reliability. These tools, with appropriate

1 oversight by the Board to assure that they are administered fairly and on a non-
2 discriminatory basis, will assure reliable natural gas service for New Jersey consumers.

3 Mandatory assignments should be permitted to meet a gas utility's obligation as
4 supplier of last resort only if unique operational constraints require such assignments. In
5 order for a utility to implement mandatory capacity assignment, it should be required to
6 file a petition with the Board, and the Board should be required to find that unique
7 operating conditions require the gas utility to retain certain capacity in order to ensure
8 system reliability. Like voluntary capacity assignment, mandatory assignment, if
9 permitted, should be priced at the gas utility's weighted average cost of capacity to ensure
10 that, as the incumbent, the utility does not get preferential access to the lowest cost
11 capacity resources.

12 Q. TURNING TO STRANDED COSTS, WHY IS THIS ASSERTED AS A REASON
13 TO IMPLEMENT MANDATORY ASSIGNMENT?

14 A. As previously explained, to provide retail sales service, gas utilities have bought firm
15 interstate pipeline capacity to transport gas supplies from producing regions to their
16 citygate. The costs of this capacity are currently included in each gas utility's rates for
17 retail sales service. When a gas utility restructures and unbundles its services, customers
18 previously purchasing retail sales service, including residential customers, will have the
19 opportunity to purchase their gas supplies from a supplier other than the gas utility.
20 Third-party suppliers will structure their own capacity arrangements to serve customers.
21 If there is voluntary capacity assignment, where the customer or third-party supplier has
22 the option of using the gas utility's capacity, these arrangements may or may not include
23 the utilization of the gas utility's capacity. As a result of new suppliers arranging for their
24 own interstate pipeline capacity purchases, the gas utility may find that it has more
25 interstate pipeline capacity than necessary to provide retail service to its remaining sales

1 customers. The costs associated with the excess capacity, if not mitigated, may result in
2 stranded capacity costs.

3 Q. ARE STRANDED CAPACITY COSTS ALWAYS EXPERIENCED AS A
4 RESULT OF THE MIGRATION OF SALES CUSTOMERS TO DISTRIBUTION
5 SERVICE?

6 A. No. In the new competitive marketplace, the capacity previously required to provide retail
7 sales service to converting customers may be required to serve growth in the utility's
8 service territory, resulting from either new sales customers or increased usage of natural
9 gas by existing customers, whether in the utility's service territory or elsewhere. A gas
10 utility may assign the capacity no longer required to provide retail sales service to another
11 entity. It also may have the opportunity to terminate the capacity contracts generating the
12 stranded costs.

13 Many interstate pipeline capacity contracts will be expiring over the next several
14 years, and many have already expired. For the past several years, gas utilities have been
15 restructuring their contracts with interstate pipelines so as to allow them the flexibility to
16 shed capacity as customers migrate from sales service. As existing long-term contracts
17 expire, the utilities have been entering into shorter-term contracts, contracts with
18 staggered terms, and contracts which provide them with the option of reducing the
19 amount of contracted capacity at periodic intervals. Gas utilities have been aware for a
20 long time of the impending move towards competition, and reasonable planning would
21 include considerations to mitigate potential harmful effects on their customers.

22 Q. WHAT DOES THE ACT STATE WITH RESPECT TO THE RECOVERY OF
23 STRANDED CAPACITY COSTS?

24 A. For all of the above reasons, the Act does not specifically address the recovery of stranded
25 costs which may result from the restructuring and unbundling of a utility's natural gas

1 services. With respect to the recovery of stranded costs resulting from the restructuring of
2 electric service, the Act provides the opportunity for the recovery of stranded costs
3 through a non-bypassable charge payable by all of an electric utility's customers.

4 However, the Act also specifies that to be eligible for recovery through such a charge, the
5 stranded costs must occur as a direct result of the implementation of electric retail choice
6 and must be otherwise unrecoverable. Moreover, the Act requires electric utilities to
7 mitigate their stranded costs for the purpose of quantifying the magnitude of stranded
8 costs eligible for recovery. (Basically the magnitude of the stranded costs associated with
9 electric restructuring refers to generation plants such as nuclear facilities).

10 Q. HOW HAVE NEW JERSEY NATURAL AND PUBLIC SERVICE PROPOSED
11 TO ADDRESS THE POTENTIAL FOR STRANDED CAPACITY COSTS?

12 A. New Jersey Natural is not requiring third-party suppliers to accept an assignment of the
13 capacity the Company had utilized to provide sales service to customers converting to
14 distribution service. To date, the pace of conversions to distribution service has been such
15 that the amount of capacity required to serve New Jersey Natural's new retail sales
16 customers has exceeded the amount of capacity "freed-up" as a result of customer
17 conversions to distribution service. That is, the amount of capacity required to provide
18 sales service to new customers has exceeded the amount of capacity freed up by existing
19 sales customers electing to be served by third-party suppliers. As a result, no stranded
20 capacity costs have been incurred. If conversions to distribution service accelerate and
21 stranded capacity costs are incurred, New Jersey Natural proposes that it may file a
22 proposal to mitigate stranded capacity costs, which may include mandatory capacity
23 assignment.

24 Public Service believes that customer growth and the flexibility it maintains to shed
25 capacity are sufficient to mitigate any potential stranded capacity and related costs which

1 may arise as a result of its customer choice program. Therefore, Public Service has not
2 specifically set forth a proposal to address stranded capacity costs.

3 Q. WHAT CAPACITY ASSIGNMENT AND STRANDED CAPACITY COST
4 RECOVERY PROCEDURES SHOULD BE ADOPTED BY THE BOARD?

5 A. The Board should adopt a policy that requires utilities to pursue all other available means
6 for avoiding and mitigating stranded costs. Only then should the Board consider
7 mandatory capacity assignment. Mitigation measures would include voluntary assignment
8 to third-party suppliers, assignment or release to other parties, and efforts to terminate or
9 modify contracts with the interstate pipelines. In the event stranded costs remain despite
10 these measures, the utility should be required to file a Petition in which it demonstrates
11 that it has pursued all available measures to avoid and mitigate stranded costs. The Board
12 should then evaluate possible remedies and, as a last resort, require mandatory capacity
13 assignment. As explained above, in our discussion of reliability issues, if mandatory
14 assignment is allowed, it should be priced at the utility's weighted average costs of
15 capacity. Furthermore, any utility that requests stranded cost recovery should not be able
16 to benefit from revenues derived from capacity release and off-system incentive programs,
17 since the presence of these revenues is likely to be a result of its changing capacity
18 portfolio. New York has stated that incentives are incompatible with requests for the
19 recovery of stranded costs.

20 Q. IN THIS PROCEEDING, HAVE ELIZABETHTOWN OR SOUTH JERSEY
21 DEMONSTRATED THAT THEY WILL EXPERIENCE STRANDED CAPACITY
22 COSTS IF THEIR PROPOSALS FOR MANDATORY CAPACITY ASSIGNMENT
23 ARE REJECTED BY THE BOARD?

1 A. No, they have not. Therefore, Elizabethtown and South Jersey should not now be
2 permitted to now adopt mandatory capacity assignment to recover stranded capacity
3 costs.

4 Q. SHOULD THRESHOLDS BE ESTABLISHED TO DETERMINE AT WHAT
5 POINT A GAS UTILITY COULD POTENTIALLY BEGIN TO EXPERIENCE
6 STRANDED CAPACITY COSTS?

7 A. Yes. Whether a gas utility will experience stranded capacity costs is contingent upon
8 three interrelated factors: (1) the pace of conversions to distribution service; (2) the
9 scheduled expiration dates of the gas utility’s existing capacity arrangements; and (3) the
10 extent to which third-party suppliers voluntarily accept the assignment of capacity. In
11 their rebuttal testimonies, each New Jersey gas utility should present evidence indicating at
12 what rate of conversion to distribution service the potential for stranded capacity costs
13 could arise over the next three years, assuming no acceptance of assigned capacity by
14 third-party suppliers. Each utility’s presentation should consider the impact of customer
15 growth on the need for capacity.

16 Q. WHAT SHOULD THE BOARD DO TO ENSURE THAT STRANDED
17 CAPACITY COSTS ARE NOT INAPPROPRIATELY RECOVERED WITHOUT
18 BOARD APPROVAL THROUGH A GAS UTILITY’S RATES FOR BASIC GAS
19 SUPPLY SERVICE?

20 A. In the proceedings in which a gas utility’s rates for Basic Gas Supply Service are
21 established, the amount of capacity reserved to provide BGSS service should be reviewed,
22 and the gas utility should be required to demonstrate that the amount of capacity reserved
23 is reasonable. Similar reviews are currently performed in each utility’s Levelized Gas Cost
24 Adjustment (“LGAC”) proceeding. Gas utilities should be denied recovery of costs found

1 to be unreasonable, and the utility should be directed to pursue the mitigation measures
2 discussed above.

3 Q. CAN THE UTILITIES DO ANYTHING TO AVOID STRANDED COSTS IN THE
4 FUTURE?

5 A. Yes. Gas utilities should maintain flexibility in their future capacity acquisitions.

6 Flexibility is a critically important characteristic of a transportation capacity portfolio on a
7 going-forward basis in today's market. Because the gas market continues to change, the
8 provision of capacity portfolio flexibility must be considered in any reasonable capacity
9 planning process.

10 Q. HOW CAN THIS BE DONE?

11 A. One way is to enter into shorter term contracts for pipeline transportation and storage
12 capacity. Flexibility can also be maintained under longer term arrangements by procuring
13 capacity for varying lengths of time. For example, interstate pipeline capacity could be
14 purchased so that separate contracts would be entered into for, say, five separate amounts,
15 each amount being 20 percent of the total acquisition.³ This, coupled with terms that were
16 staggered so that one contract would reach its term each year, would allow gas utilities to
17 acquire capacity on a longer term basis with the option every year to shed 20 percent of its
18 interstate pipeline capacity portfolio. New Jersey gas utilities should consider this and all
19 other flexible capacity acquisition programs as they plan to meet their future remaining
20 service obligations. Given the revealed preference for shorter and shorter term

³The Ratepayer Advocate is not proposing this exact contracting procedure or result; rather, this example simply underscores one scenario as an example for the procurement of pipeline capacity under a program that provides for longer term acquisitions without sacrificing flexibility.

1 procurements of interstate pipeline capacity, and the continued restructuring and evolution
2 of the interstate capacity acquisition market, prudence requires that gas utilities consider
3 and provide for flexibility in planning their capacity purchases on interstate pipelines.

4 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY ON GENERIC POLICY
5 ISSUES?

6 A. Yes, it does.

**APPENDIX A: QUALIFICATIONS OF
RICHARD A. GALLIGAN**

RICHARD A. GALLIGAN

Mr. Galligan is a principal in Exeter Associates, Inc. He is an economist specializing in public utility regulation. Areas of expertise include rate structure, cost of service, and revenue requirements. Mr. Galligan has assisted numerous clients with their acquisitions of natural gas.

Mr. Galligan has given expert testimony on approximately 90 occasions before more than a 25 federal and state regulatory authorities. He has testified in electric, gas, and telephone proceedings on matters which include rate base, revenues, expenses, average and marginal cost studies, integrated resource planning, cost structure, and rate design. He has also prepared reports for state regulatory authorities dealing with matters of rate design, cost of service, and regulatory standards. Mr. Galligan has assisted the Defense Fuel Supply Center, the U.S. Army, and other Department of Defense installations in the competitive procurement of natural gas.

Education:

B.S. (with senior honors) - University of Wisconsin, 1965.

M.S. (Economics) - University of Wisconsin, 1966.

Ph.D. (Economics) - University of Minnesota, 1968; completed all course work.

Previous Employment:

March 1987- Sept. 1987 - General Manager, Rates and Regulatory Affairs, Gas Company of New Mexico.

1985-1987 - Executive Director, Texas Public Utility Commission.

1984-1985 - Utilities Division Director, Iowa State Commerce Commission.

1981-1984 - Principal and part owner, Exeter Associates, Inc., consulting economists.

1976-1980 - Economist at J.W. Wilson & Associates, Inc., consulting economists.

1975-1976 - Senior Rate Analyst, Minnesota Public Utilities Commission.

1968-1975 - Assistant Professor of Economics, Mankato State University.

Professional Work:

At Gas Company of New Mexico, Mr. Galligan managed and directed the activities of the Gas Rate Department.

At the Texas Public Utility Commission, Mr. Galligan was directly responsible for technical matters regarding all aspects of utility regulation as well as the management and administration of the Commission's regulatory activities.

At the Iowa State Commerce Commission, Mr. Galligan directed the technical efforts of over 50 Utilities Division personnel regarding all aspects of utility regulatory analysis. Full administrative responsibility for the Division's activities and personnel were the direct responsibility of Mr. Galligan.

At Exeter Associates, Mr. Galligan was directly responsible for technical, economic analysis of electric, gas, and telephone regulatory matters, including cost of service, cost allocation, rate design and related matters. Mr. Galligan also handled all aspects of client relations, supervised office support staff, and served as treasurer and vice-president of Exeter.

At J.W. Wilson & Associates, Mr. Galligan had the primary responsibility for directing and developing the firm's work in the area of utility revenue requirements. Other major responsibilities included the performance of marginal and average cost studies, cost-of-service allocations, and development of cost-based utility rate structures for electric, gas, and telephone utilities.

Mr. Galligan began his work at the Minnesota Public Utilities Commission at the time state regulation of electric and gas utilities commenced. While at the Commission, Mr. Galligan had principal responsibility for the development of staff-proposed utility rate design. Cost-of-service analysis and rate structure issues were areas in which Mr. Galligan had lead staff responsibility.

At Mankato State University (MSU), Mr. Galligan taught a wide range of graduate and undergraduate courses, including Economics of the Public Sector, International Trade, and Economic Principles. Major emphasis focused on the microeconomic aspects, including pricing of goods in the public sector. Mr. Galligan achieved tenure status in his third year at MSU, and served as president of the Faculty Senate.

Publications and Reports:

"Rate Design Objectives and Realities," Public Utilities Fortnightly, 1976.

Paper presented before the Accounting & Financial Division of the Electric Council of England.

Paper presented before the Public Affairs Institute of Mankato State University.

Seminar on income tax and depreciation issues in regulatory proceedings before the New Hampshire Public Utilities Commission staff.

Director of costing and rate design study under a grant from the National Regulatory Research Institute.

"An Overview of the Components of Economic Regulation: Revenue Requirements, Revenue Contribution by Class of Service, Rate Structure Design," presented at the Second National Association of Regulatory Utility Commissions, Introductory Regional Training Program, St. Louis, March 1986.

"Public Utility Costing & Pricing Principles," presented at NARUC Regional Training Program, Denver, September 1987.

"Final Report - Task Group on Natural Gas Procurement," for the Defense Acquisition Board, Department of Defense, 1989, co-author.

"Natural Gas Supply Options for the DOE/SAN Labs," for the U.S. Department of Energy, 1989.

"Evaluation of Natural Gas Supply Options for Energy Technology Engineering Center," for the U.S. Department of Energy, 1989.

"A Survey of State Regulation of Non-Utility Generation," for the Maryland Department of Natural Resources, 1988.

"Report to the Commission and Recommendations Regarding Proposed PURPA Standards Included in Federal Energy Policy Act of 1992," for the Delaware Public Service Commission, 1993.

Audits:

Audit of Department of Natural Resources Environmental Surcharge for the Maryland Department of Natural Resources, 1983.

Management and Performance Audit of Gas Purchasing Practices and Policies of Columbia Gas of Ohio, for the Ohio Public Utilities Commission, 1988.

Management and Performance Audit of Gas Purchasing Practices and Policies of The River Gas Company, for the Ohio Public Utilities Commission, 1989.

Management and Performance Audit of Gas Purchasing Practices and Policies of Columbia Gas of Ohio, for the Ohio Public Utilities Commission, 1990.

Management and Performance Audit of Gas Purchasing Practices and Policies of Cincinnati Gas and Electric Company, for the Ohio Public Utilities Commission, 1991.

Management and Performance Audit of Gas Purchasing Practices and Policies of Columbia Gas of Ohio, for the Ohio Public Utilities Commission, 1992.

Management and Performance Audit of Gas Purchasing Practices and Policies of Ohio Gas Company, for the Ohio Public Utilities Commission, 1993.

Management and Performance Audit of Gas Purchasing Practices and Policies of National Gas and Oil Corporation, for the Ohio Public Utilities Commission, 1994.

Management and Performance Audit of Gas Purchasing Practices and Policies of Eastern Natural Gas Company and Pike Natural Gas Company, for the Ohio Public Utilities Commission, 1995.

Management and Performance Audit of Gas Purchasing Practices and Policies of Dayton Power and Light Company, for the Ohio Public Utilities Commission, 1996.

Management and Performance Audit of Gas Purchasing Practices and Policies of West Ohio Gas Company, for the Ohio Public Utilities Commission, 1996.

Management and Performance Audit of Gas Purchasing Practices and Policies of East Ohio Gas Company, for the Ohio Public Utilities Commission, 1998.

Management and Performance Audit of Gas Purchasing Practices and Policies of Columbia Gas of Ohio, for the Ohio Public Utilities Commission, 1998.

Expert Testimony

Presented by Richard A. Galligan

Telephone Rate Cases

Before the Alabama Public Service Commission

Expert witness in Docket 17743; South Central Bell Telephone Company.

Before the California Public Utilities Commission

Expert witness in Application No. 55723; Pacific Telephone and Telegraph Company.

Before the Connecticut Public Utilities Commission

Expert witness in Docket No. 760719; Southern New England Telephone Company.

Before the Maryland Public Service Commission

Expert witness in Case No. 6936; Atlantic Telephone Company, Inc.

Before the Minnesota Public Utilities Commission

Expert witness in Docket No. PSC-77-31-BS and Department No. PSC-P 421/C076-1053; Northwestern Bell Telephone Company.

Before the Missouri Public Service Commission

Expert witness in Docket No. 18565; Southwestern Bell Telephone Company.

Before the North Carolina Public Utilities Commission

Expert witness in Docket No. P-55, Sub 754; Southern Bell Telephone and Telegraph Company.

Before the Pennsylvania Public Utility Commission

Expert witness in Docket No. R-822109; General Telephone Company of Pennsylvania.

Before the South Carolina Public Service Commission

Expert witness in Docket No. 79-305-C; Southern Bell Telephone & Telegraph Company.

Expert witness in Docket No. 82-294-C; Southern Bell Telephone & Telegraph Company.

Electric and Gas Utility Rate Cases

Before the Connecticut Public Utilities Commission

Technical support for the Commission's Staff in Docket Nos. 760604, 760605, gas and electric general rate proceedings; and Docket No. 750204, generic rate design proceeding; Connecticut Light and Power Company; and Hartford Electric Light Company.

Before the Delaware Public Service Commission

Expert witness in Docket No. 923, Phase II; Delmarva Power & Light Company.

Expert witness in Docket No. 80-9; Delmarva Power & Light Company.

Expert witness in Docket No. 40; Delmarva Power & Light Company.

Before the District of Columbia Public Service Commission

Expert witness in Docket No. 680; Potomac Electric Power Company.

Before the Florida Public Service Commission

Expert witness in Docket No. 820150-EU; Gulf Power Company.

Before the Georgia Public Service Commission

Expert witness in Docket No. 4267-U; Atlanta Gas Light Company.

Expert witness in Docket No. 4177-U; Atlanta Gas Light Company.

Expert witness in Docket No. 4451-U; Atlanta Gas Light Company.

Expert witness in Docket No. 5259-U; Atlanta Gas Light Company.

Expert witness in Docket No. 5116-U; Atlanta Gas Light Company.

Expert witness in Docket No. 5650-U; Atlanta Gas Light Company.

Expert witness in Docket No. 5318-U; United Cities Gas Company.

Expert witness in Docket No. 5651-U; United Cities Gas Company.

Before the Idaho Public Utilities Commission

Expert witness in Case No. U-1006-185; Idaho Power Company.

Expert witness in Case No. U-1006-179; Idaho Power Company.

Before the Illinois Commerce Commission

Expert witness in Case No. 82-0026; Commonwealth Edison Company.

Expert witness in Case No. 83-0537; Commonwealth Edison Company.

Expert witness in Case No. 87-0427; Commonwealth Edison Company.

Before the Indiana Utility Regulatory Commission

Expert witness in Cause No. 39723; Northern Indiana Public Service Company.

Expert witness in Cause No. 37394-GCA41; Indiana Gas Company.

Before the Kansas Corporation Commission

Expert witness in Docket No. 158,499-U; Kansas Power and Light Company.

Before the Louisiana Public Service Commission

Expert witness in Docket No. U-19997; Trans Louisiana Gas Company and Louisiana Intrastate Gas Corporation.

Before the Maryland Public Service Commission

Expert witness in Case Nos. 8500 (g,h,i) and 8229; Baltimore Gas & Electric Company.

Expert witness in Case No. 8241, Phase II; Baltimore Gas & Electric Company.

Expert witness in Case No. 8707, Phase II; Chesapeake Utilities Corporation.

Before the Michigan Public Service Commission

Expert witness in Case No. U-5365; Michigan Consolidated Gas Company.

Before the Minnesota Public Utilities Commission

Expert witness in Docket No. ER 2-1; Northern States Power Company.

Expert witness in Docket No. ER 1-1; Interstate Power Company.

Expert witness in Docket No. GR 1-1; Interstate Power Company.

Expert witness in Docket No. U-75-103; Anoka Electric Power Cooperative.

Expert witness in Docket No. E015/ER-76-408; Minnesota Power & Light Company.

Expert witness in Docket No. E002/GR-77-611; Northern States Power Company.

Expert witness in Docket No. E-862/M-78-753; Northern States Power Company.

Before the Montana Public Service Commission

Expert witness in Docket No. 6441; Montana Dakota Utilities.

Expert witness in Docket No. 6454; Montana Power Company.

Expert witness in Docket No. D97.7.91; PacifiCorp.

Before the Nevada Public Service Commission

Expert witness in Docket No. 87-1227; Sierra Pacific Power Company.

Expert witness in Docket No. 88-763; Southwest Gas Corporation.

Expert witness in Docket Nos. 90-1109/90-1110; Southwest Gas Corporation.

Expert witness in Docket No. 91-7080; Sierra Pacific Power Company.

Expert witness in Docket No. 92-1030; Sierra Pacific Power Company.

Expert witness in Docket No. 92-1032; Southwest Gas Corporation.

Before the New Hampshire Public Utilities Commission

Expert witness in Docket No. DR-75-20; Public Service Company of New Hampshire.

Before the New Jersey Board of Public Utilities

Expert witness in Docket No. GR-9030335J; New Jersey Natural Gas Company.

Before the Ohio Public Utilities Commission

Expert witness in Case No. 80-1129-EL-AIR; Ohio Edison Company.

Expert witness in Case No. 82-517-EL-AIR; Dayton Power and Light Company.

Expert witness in Case No. 97-219-GA-GCR; East Ohio Gas Company.

Before the Pennsylvania Public Utility Commission

Expert witness in Docket No. R-822133; Equitable Gas Company.

Expert witness in Docket No. R-880961; The Peoples Natural Gas Company.

Expert witness in Docket No. R-901607; The Peoples Natural Gas Company.

Expert witness in Docket No. R-901670; National Fuel Gas Distribution Corporation.

Expert witness in Docket No. R-911912; National Fuel Gas Distribution Corporation.

Expert witness in Docket No. R-953299; National Fuel Gas Distribution Corporation.

Expert witness in Docket No. R-00912164; Equitable Gas Company.

Expert witness in Docket No. R-00953297; UGI Utilities, Inc. Gas Division.

Before the Rhode Island Public Utilities Commission

Expert witness in Docket No. 1258; Providence Gas Company.

Expert witness in Docket No. 1294; Valley Gas Company.

Before the South Carolina Public Service Commission

Expert witness in Docket No. 79-300-E; Duke Power Company.

Expert witness in Docket No. 80-378-E; Duke Power Company.

Expert witness in Docket No. 88-203-G; Piedmont Natural Gas Company.

Before the South Dakota Public Utilities Commission

Expert witness in Docket No. F-3126; Montana Dakota Utilities Company.

Expert witness in Docket No. F-3188; Northern States Power Company.

Before the Board of Directors of the Tennessee Valley Authority

Expert witness in TVA Compliance Hearings on PURPA Section III Ratemaking Standards.

Before the Texas Public Utility Commission

Expert witness in Docket No. 5200; Texas Electric Service Company.

Before the Railroad Commission of Texas

Expert witness in Docket No. GUD 8664; Lone Star Gas Company.

Expert witness in Docket No. GUD 8878; Southern Union Gas Company.

Before the Utah Public Service Commission

Expert witness in Docket No. 89-057-15; Mountain Fuel Supply Company.

Expert witness in Docket Nos. 91-057-11 and 91-057-17; Mountain Fuel Supply Company.

Before the Vermont Public Service Board

Expert witness in Docket No. 6016; Vermont Gas Systems, Inc.

Before the Virginia State Corporation Commission

Expert witness in Case No. PUE920037; Commonwealth Gas Services, Inc.

Expert witness in Case No. PUE970455; Commonwealth Gas Services, Inc.

Before the Federal Energy Regulatory Commission

Expert witness in Docket No. RP87-7-020; Transcontinental Gas Pipe Line Corporation.

Expert witness in Docket No. RP90-104-000 et al.; Texas Gas Transmission Corporation.

Expert witness in Docket No. RP91-119; Texas Eastern Transmission Corporation.

Expert witness in Docket No. CP89-1582-000; National Fuel Gas Supply Corporation.

Expert witness in Docket No. RP88-221-000 et al.; CNG Transmission Corporation.

Expert witness in Docket No. RP93-151-000, et al.; Tennessee Gas Pipeline Company.

Expert witness in Docket No. RP91-203, et al.; Tennessee Gas Pipeline Company.

Expert witness in Docket No. RP94-343-000; Noram Gas Transmission Company.

Expert witness in Docket No. RP95-112; Tennessee Gas Pipeline Company.

Expert witness in Docket No. RP95-185; Northern Natural Gas Company.

Expert witness in Docket No. RP95-203; Northern Natural Gas Company.

**APPENDIX B: QUALIFICATIONS OF
JEROME D. MIERZWA**

JEROME D. MIERZWA

Mr. Mierzwa is a Principal of Exeter Associates, Inc., with ten years of public utility regulatory experience. At Exeter, Mr. Mierzwa has been involved in purchased gas cost allocation analysis and rate design analysis, conducting management audits and similar investigations of the natural gas supply and procurement policies and practices of interstate gas pipelines and local distribution companies (LDCs), and has been extensively involved in proceedings before the Federal Energy Regulatory Commission (FERC). Mr. Mierzwa has participated in the planning of natural gas procurements for major federal installations located in various regions of the country. Most recently, Mr. Mierzwa has been involved in evaluating performance-based incentive regulation for LDC purchased gas costs and the unbundling of LDC services. Mr. Mierzwa has participated in developing utility class cost-of-service studies, has presented testimony sponsoring gas, water and wastewater utility cost-of-service studies, least cost gas procurement and incentive regulation, in addition to presenting testimony addressing utility rate base and revenues.

Education

B.S. (Marketing) - Canisius College, Buffalo, New York, 1981.

M.B.A. (Finance) - Canisius College, Buffalo, New York, 1985.

Gas Rates Fundamental Course, June 1987, University of Wisconsin, sponsored by the American Gas Association.

Previous Employment

1986-1990 - Rate Analyst, National Fuel Gas Company, Buffalo, New York.

Prior Professional Work

Prior to joining Exeter in 1990, Mr. Mierzwa served as a rate analyst at National Fuel Gas Supply Corporation, an interstate pipeline. In that position, he was involved in preparing purchased gas adjustment filings and reviewing the rate filings of interstate pipeline suppliers. Mr. Mierzwa was also involved in preparing supplier rate, gas sales and gas purchase forecasts, examining the rate implications of storage activity, and studies examining rate of return, cash working capital and potential merger and acquisition candidates.

Presentations

The NASUCA annual meetings in San Antonio, Texas, November 1991 (presentation concerning the FERC Mega-NOPR proceeding which led to the adoption of FERC Order No. 636).

The NASUCA annual meetings in Reno, Nevada, November 1994 (presentation concerning spot market gas incentive procurement programs).

Expert Testimony

of Jerome D. Mierzwa

Columbia Gas of Ohio (Public Utilities Commission of Ohio , Case No. 90-17-GA-GCR), November 1990. Co-authored report on audit of management and performance of gas purchasing on behalf of the Public Utilities Commission of Ohio. (Findings and recommendations were stipulated to without cross-examination.)

City of Great Falls Wastewater Utility (Montana Public Service Commission Docket No. 90.10.66), March 1991. Presented a cost of service study on behalf of the U.S. Air Force.

City of Great Falls Water Utility (Montana Public Service Commission Docket No. 90.10.67), March 1991. Presented a cost of service study on behalf of the U.S. Air Force.

Cincinnati Gas & Electric Company (Public Utilities Commission of Ohio, Case No. 91-16-GA-GCR), October 1991. Co-authored report on audit of management and performance of gas purchasing on behalf of the Public Utilities Commission of Ohio. (Findings and recommendations were stipulated to without cross-examination.)

Louisiana Gas Service Company (Louisiana Public Service Commission Docket No. U-19237), December 1991. Testified on rate base including cash working capital, cost allocation and rate design on behalf of the Louisiana Public Service Commission.

Equitable Gas Company and Jefferson Gas Company (Pennsylvania Public Utility Docket No. R-00912164), April 1992. Presented a revised forecast of test year sales and revenues on behalf of the Pennsylvania Office of Consumer Advocate.

Peoples Natural Gas Company (Pennsylvania Public Utility Docket Nos. R-00922180 and R-00922206), May 1992. Presented testimony sponsoring a revised forecast of purchased gas costs and on least cost gas procurement on behalf of the Pennsylvania Office of Consumer Advocate.

UGI Utilities, Inc., Gas Utility Division (Pennsylvania Public Utility Docket No. R-922323), July 1992. Presented testimony on the allocation of purchased gas costs and the projection of purchased gas costs on behalf of the Pennsylvania Office of Consumer Advocate.

Providence Water Supply Board (Rhode Island Public Utilities Commission Docket No. 2048), August 1992. Presented testimony sponsoring a class cost of service study, cash working capital and revenues on behalf of the Division of Public Utilities and Carriers.

Dallas, Harvey's Lake, Noxen and Shavertown Water Companies (Pennsylvania Public Utility Docket Nos. R-922326, R-922327, R-922328 and R-922329) September 1992.

Presented testimony on rate base and net operating income issues on behalf of the Pennsylvania Office of Consumer Advocate.

Columbia Gas of Ohio (Public Utilities Commission of Ohio, Case No. 92-18-GA-GCR). January 1993. Co-authored report on audit of management and performance of gas purchasing on behalf of the Public Utilities Commission of Ohio.

National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Docket No. R-00922499), March 1993. Presented testimony on the allocation of purchased gas costs, FERC Order No. 636 transition costs and the projection of purchased gas costs on behalf of the Pennsylvania Office of Consumer Advocate.

Philadelphia Suburban Water Company (Pennsylvania Public Utility Docket No. R-00922476), March 1993. Presented testimony addressing test year revenues and expenses on behalf of the Pennsylvania Office of Consumer Advocate.

The Peoples Natural Gas Company (Pennsylvania Public Utility Docket No. R-00932598), May 1993. Presented testimony on the allocation of purchased gas costs, FERC Order No. 636 transition costs and least cost gas procurement on behalf of the Pennsylvania Office of Consumer Advocate.

Dauphin Consolidated Water Supply Company and General Waterworks of Pennsylvania, Inc. (Pennsylvania Public Utility Docket No. R-00932604), June 1993. Presented testimony addressing test year net operating income on behalf of the Pennsylvania Office of Consumer Advocate.

National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Docket No. R-00932548), July 1993. Presented testimony addressing test year revenues and FERC Order No. 636 transition costs on behalf of the Pennsylvania Office of Consumer Advocate.

National Fuel Gas Supply Corporation (Federal Energy Regulatory Commission Docket No. RP93-73-000), July 1993. Presented testimony addressing test year throughput and rate design on behalf of the Pennsylvania Office of Consumer Advocate.

UGI Utilities, Inc., Gas Utility Division (Pennsylvania Public Utility Docket No. R-00932674), July 1993. Presented testimony on the allocation of purchased gas costs, FERC Order No. 636 transition costs and least cost gas procurement on behalf of the Pennsylvania Office of Consumer Advocate.

Sierra Pacific Power Company, Gas Operations (Nevada Public Service Commission Docket No. 93-4087), September 1993. Presented testimony on the allocation of purchased gas costs to electric and gas operations on behalf of the Nevada Office of Consumer Advocate.

Ohio Gas Company (Public Utilities Commission of Ohio, Case No. 93-14-GA-GCR), October 1993. Co-authored report on audit of management and performance of gas purchasing on behalf of the Public Utilities Commission of Ohio.

UGI Utilities, Inc., Gas Utility Division (Pennsylvania Public Utility Docket No. R-00932927), March 1994. Presented testimony on transportation service balancing requirement modifications and service enhancements in response to FERC Order No. 636 on behalf of the Pennsylvania Office of Consumer Advocate.

National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Docket No. R-00932885), April 1994. Presented testimony addressing the allocation of purchased gas costs, FERC Order No. 636 transition costs, incentive rate mechanisms, and the projection of purchased gas costs on behalf of the Pennsylvania Office of Consumer Advocate.

The Peoples Natural Gas Company (Pennsylvania Public Utility Docket No. R-00943028), April 1994. Presented testimony addressing the allocation of purchased gas costs, FERC Order No. 636 transition costs, take-or-pay costs, incentive rate mechanisms and the projection of purchased gas costs on behalf of the Pennsylvania Office of Consumer Advocate.

Citizens Gas & Coke Utility (Indiana Utility Regulatory Commission, Cause No. 37399-GCA41), May 1994. Presented testimony addressing the allocation and recovery of Order No. 636 transition costs on behalf of the Indiana Utility Consumer Counselor.

UGI Utilities, Inc., Gas Utility Division (Pennsylvania Public Utility Docket No. R-00943064), July 1994. Presented testimony addressing the allocation of purchased gas costs and incentive rate mechanisms on behalf of the Pennsylvania Office of Consumer Advocate.

National Gas & Oil Corporation (Public Utilities Commission of Ohio, Case No. 94-221-GA-GCR), October 1994. Co-authored report on audit of management and performance of gas procurement activity on behalf of the Public Utilities Commission of Ohio.

Trans Louisiana Gas Company (Louisiana Public Service Commission, Docket No. U-19997), November 1994. Presented testimony addressing the results of a Commission-ordered investigation into the purchased gas adjustment clause of Trans Louisiana Gas Company on behalf of the Louisiana Public Service Commission Staff.

NorAm Gas Transmission Company (Federal Energy Regulatory Commission Docket No. RP94-343-000), March 1995. Presented testimony addressing rate design billing determinants and the treatment of revenues associated with short term firm, interruptible and other services on behalf of the Arkansas and Louisiana Public Service Commissions.

UGI Utilities, Inc., Gas Utility Division (Pennsylvania Public Utility Docket No. R-00953297), May 1995. Presented testimony addressing the allocation of purchased gas costs on behalf of the Pennsylvania Office of Consumer Advocate.

The Peoples Natural Gas Company (Pennsylvania Public Utility Docket No. R-00953318), May 1995. Presented testimony addressing the acquisition of capacity resources, transportation balancing charges, performance-based incentive programs and lost and unaccounted-for and company use gas.

National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Docket No. R-00953299), June 1995. Presented testimony addressing storage working capital requirements, heating degree days to be utilized for weather normalization purposes and sponsored a class cost of service on behalf of The Pennsylvania Office of Consumer Advocate.

UGI Utilities, Inc., Gas Utility Division (Pennsylvania Public Utility Docket No. R-00953374), July 1995. Presented testimony addressing the acquisition of interstate pipeline capacity and the allocation of purchased gas costs on behalf of The Pennsylvania Office of Consumer Advocate.

Atlanta Gas Light Company (Georgia Public Service Commission Docket No. 5650-U), August 1995. Presented testimony addressing operations of the Company's purchased gas adjustment mechanism and gas procurement practices and policies on behalf of the Georgia Consumers' Utility Counsel.

United Cities Gas Company (Georgia Public Service Commission Docket No. 5651-U), August 1995. Presented testimony addressing the allocation of purchased gas costs on behalf of the Georgia Consumers' Utility Counsel.

Eastern and Pike Natural Gas Companies (Public Utilities Commission of Ohio, Case Nos. 95-215-GA-GCR and 95-216-GA-GCR), September 1995. Co-authorized report on audit of management and performance of gas procurement activity on behalf of the Public Utilities Commission of Ohio.

Tennessee Gas Pipeline Company (Federal Energy Regulatory Commission Docket No. RP95-112-000), September 1995. Presented testimony addressing rate design determinants and revenues associated with long term firm, short term firm and interruptible services on behalf of the Pennsylvania Office of Consumer Advocate.

North Shore Gas Company and Peoples Gas Light and Coke Company (Illinois Commerce Commission Docket Nos. 95-0490 and 95-0491), January 1996. Presented testimony evaluating performance-based rate programs for purchased gas costs on behalf of the Citizens Utility Board.

National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Docket No. R-00953487), March 1996. Presented testimony addressing incentive rate mechanisms, the allocation of purchased gas costs and unauthorized service on behalf of the Pennsylvania Office of Consumer Advocate.

The Peoples Natural Gas Company (Pennsylvania Public Utility Docket No. R-00963563), May 1996. Presented testimony addressing the allocation of purchased gas costs and the projection of purchased gas costs on behalf of the Pennsylvania Office of Consumer Advocate.

North Penn Gas Company and PFG Gas, Inc. (Pennsylvania Public Utility Docket No. R-00963636), July 1996. Presented testimony addressing the recovery of excess interstate pipeline capacity costs on behalf of the Pennsylvania Office of Consumer Advocate.

Dayton Power & Light Company (Public Utilities Commission of Ohio, Case No. 96-220-GA-GCR), September 1996. Co-authored report on audit of management and performance of gas purchasing on behalf of the Public Utilities Commission of Ohio.

West Ohio Gas Company (Public Utilities Commission of Ohio, Case No. 96-221-GA-GCR), November 1996. Co-authored report on audit of management and performance of gas purchasing on behalf of the Public Utilities Commission of Ohio.

Northern Illinois Gas Company (Illinois Commerce Commission Docket No. 96-0386), November 1996. Presented testimony evaluating performance-based rate programs for purchased gas costs on behalf of the Citizens Utility Board.

National Fuel Gas Distribution (Pennsylvania Public Utilities Commission Docket No. R-00963779), March 1997. Presented testimony addressing the allocation of purchased gas costs and gas procurement practices and policies on behalf of the Pennsylvania Office of Consumer Advocate.

Equitable Gas Company (Pennsylvania Public Utilities Commission Docket No. R-00973895), May 1997. Presented testimony addressing the allocation of purchased gas costs and gas procurement practices and policies on behalf of the Pennsylvania Office of Consumer Advocate.

Southwest Gas Corporation (Nevada Public Service Commission Docket No. 97-2005), June 1997. Presented testimony addressing the allocation of purchased gas costs and gas procurement practices and policies on behalf of the Pennsylvania Office of Consumer Advocate.

Kent County Water Authority, (Rhode Island Public Utilities Commission Docket No. 2555), June 1997. Presented class cost of service testimony on behalf of the Division of Public Utilities and Carriers.

UGI Utilities, Inc., Gas Utility Division (Pennsylvania Public Utility Docket No. R-00974012), July 1997. Presented testimony on the allocation of purchased gas costs, and the computation of off-system sales margins and margin sharing procedures on behalf of the Pennsylvania Office of Consumer Advocate.

Pennsylvania American Water Company (Pennsylvania Public Utility Docket No. R-00973944), July 1997. Presented class cost of service and rate design testimony on behalf of the Pennsylvania Office of Consumer Advocate.

Commonwealth Gas Services, Inc. (Virginia State Corporation Commission Case No. PUE970455), August 1997. Presented testimony addressing the Company's retail unbundling pilot program on behalf of the Division of Consumer Counsel, Office of the Attorney General.

Consumers Pennsylvania Water Company, Shenango Valley Division (Pennsylvania Public Utility Docket No. R-00973972), September 1997. Presented class cost of service and rate design testimony on behalf of the Pennsylvania Office of Consumer Advocate.

Sierra Pacific Power Company, Water Department (Nevada Public Service Commission Docket No. 97-9020), January 1998. Presented class cost of service and rate design testimony on behalf of the Nevada Utility Consumers' Advocate.

Southern Union Gas Company (City of El Paso, Texas) Inquiry into Southern Union Gas Company's Purchased Gas Adjustment Clause, March 1998. Presented testimony addressing the reasonableness of the Company's gas procurement practices and policies on behalf of the City of El Paso, Texas.

East Ohio Gas Company (Public Utilities Commission of Ohio Case No. 97-219-GA-GCR), March 1998. Co-authored report on the Company's residential and small commercial pilot transportation program on behalf of the Public Utilities Commission of Ohio.

Columbia Gas of Ohio, Inc. (Public Utilities Commission of Ohio Case No. 98-222-GA-GCR), March 1998. Co-authored report on the Company's residential and small commercial pilot transportation program on behalf of the Public Utilities Commission of Ohio.

National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Commission Docket No. R-00974167), March 1998. Presented testimony on the allocation of purchased gas costs on behalf of the Pennsylvania Office of Consumer Advocate.

Pawtucket Water Supply Board (Rhode Island Public Utilities Commission Docket No. 2674), April 1998. Presented class cost of service testimony on behalf of the Division of Public Utilities and Carriers.

Equitable Gas Company (Pennsylvania Public Utilities Commission Docket No. R-00984279), May 1998. Presented testimony addressing the allocation of purchased gas costs and gas procurement practices and policies on behalf of the Pennsylvania Office of Consumer Advocate.

East Ohio Gas Company (Public Utilities Commission of Ohio Case No. 97-219-GA-GCR), May 1998. Co-authored report on audit of management and performance of gas purchasing on behalf of the Public Utilities Commission of Ohio.

UGI Utilities, Inc., Gas Utility Division (Pennsylvania Public Utility Docket No. R-00984352), July 1998. Presented testimony on the allocation of purchased gas costs on behalf of the Pennsylvania Office of Consumer Advocate.

Columbia Gas of Ohio, Inc. (Public Utilities Commission of Ohio Case No. 98-223-GA-GCR), January 1999. Co-authored report on audit of management and performance of gas purchasing on behalf of the Public Utilities Commission of Ohio.

North Shore Gas Company and Peoples Gas Light and Coke Company (Illinois Commerce Commission Docket Nos. 98-0819 and 98-0820), February 1999. Presented testimony addressing proposals to adopt fixed gas cost charges on behalf of the Citizens Utility Board.

National Fuel Gas Distribution Corporation (Pennsylvania Public Utility Docket No. R-00984497), March 1999. Presented testimony addressing the allocation of purchased gas costs, gas price projections and the appropriate level of capacity entitlements on behalf of the Pennsylvania Office of Consumer Advocate.

Delmarva Power and Light Company (Delaware Public Service Commission Docket No. 98-524), March 1999. Presented testimony addressing the Company's customer choice pilot program on behalf of the Division of Public Advocate.

The Peoples Natural Gas Company (Pennsylvania Public Utility Docket No. R-00994600), May 1999. Presented testimony addressing the contracting for interstate pipeline capacity and the obligation to serve on behalf of the Pennsylvania Office of Consumer Advocate.

Nicor Gas Company (Illinois Commerce Commission Docket No. 99-0127), May 1999. Presented testimony addressing performance-based rates for purchased gas costs on behalf of the Citizens' Utility Board.