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Of UtiliCorp Pipeline Systems, and
Connection
Witness: Jeff D. Makholm, Ph.D
Type of Exhibit: Rebuttal
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BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

Case No. GM-2001-595

REBUTTAL TESTIMONY
OF
JEFF D. MAKHOLM, Ph.D

NP

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1 **I. INTRODUCTION AND CONCLUSIONS**

2 **A. Qualifications**

3 Q. Please state your name, business address and current position.

4 A. My name is Jeff D. Makhholm. I am a Senior Vice President at National Economic
5 Research Associates, Inc. (NERA). NERA is a firm of consulting economists with its
6 principal offices in a number of major U.S. and European cities. My business address is
7 One Main Street, Cambridge, Massachusetts, 02142.

8 Q. Please describe your academic background.

9 A. I received M.A. and Ph.D. degrees in economics from the University of Wisconsin,
10 Madison, with a major field of Industrial Organization and a minor field of
11 Econometrics/Public Economics. I also received B.A. and M.A. degrees in economics from
12 the University of Wisconsin, Milwaukee. Prior to my latest full-time consulting activities, I
13 was an Adjunct Professor in the Graduate School of Business at Northeastern University, in
14 Boston, Massachusetts, teaching courses in microeconomic theory and managerial
15 economics.

16 Q. Please describe your work experience.

17 A. I lead NERA's natural gas industry consulting practice, and I am Co-Chair of NERA's
18 energy practice. I have worked both in the United States and in many other countries on
19 questions of gas industry structure, ownership, financing, privatization, regulation, and
20 pricing for a variety of private and government clients. A consistent, and frequent, theme in
21 much of my work, both in the United States and abroad, has been the pursuit of industry

1 structures and pricing regimes that promote pipeline-on-pipeline competition and efficiency
2 in pipeline capacity expansion.

3 As part of my consulting activities during my fifteen years at NERA, I have prepared expert
4 testimony and statements, and I have appeared as an expert witness before many state
5 regulatory bodies and before the Federal Energy Regulatory Commission (the "FERC").

6 I have appeared on dozens of occasions as an expert on behalf of many gas transportation
7 and distribution companies, before the FERC or state regulatory bodies, from 1982 to the
8 present. I have been deeply involved in the tariff, service, reliability and competitive issues
9 that accompanied the transition to competition in the gas industry. My publications
10 regarding gas industry issues that have accompanied the development of competition have
11 appeared in *Public Utilities Fortnightly* and *Natural Gas*.

12 In addition to my work with the gas industry in the United States, I have directed studies
13 dealing with gas industries in roughly 20 other countries. These studies were for gas utility
14 companies, governments and the World Bank. They include the drafting of regulations, the
15 creation of new tariff methodologies, recommendations for financing of major capital
16 projects and advice on gas industry competitive restructurings. I have also assisted in the
17 privatization of state-owned gas utilities.

18 My current vita, detailing more fully my educational and consulting experience, is attached
19 to this testimony as **Appendix 1**.

20 **B. Purpose of Testimony**

21 Q. What is the purpose of your testimony?

1 A. I have been asked to review the filings in this case and to respond to the testimonies of
2 Laclede witness, Christopher C. Pflaum; Staff witnesses Roberta McKiddy, Mark
3 Oligschlaeger, Carmen Morrissey, and Phil S. Lock; and Office of Public Counsel
4 witnesses Mark Burdette and Kimberly K. Bolin. In particular, I respond to the issues that
5 these witnesses raise by way of questioning whether or not Gateway Pipeline Company,
6 Inc.'s (Gateway) proposal to purchase, from UtiliCorp United, Inc., UtiliCorp Pipeline
7 Systems, Inc. (UPL) (the acquisition) is detrimental to the public interest. UPL is the parent
8 company of Missouri Gas Company (MGC) and Missouri Pipeline Company (MPC), which
9 own and operate natural gas transmission pipelines in the State of Missouri and are
10 therefore subject to the jurisdiction of the Missouri Public Service Commission (the
11 Commission).

12 Q. How is your testimony organized?

13 A. In addition to this Introduction, my testimony has six sections. In **Section II**, I examine the
14 public interest impact of the proposed acquisition. In **Section III**, I appraise Gateway's
15 ability to undertake the proposed acquisition. In **Section IV**, I refute Christopher C.
16 Pflaum's statements on behalf of Laclede. In **Section V**, I reply to the comments of the
17 Staff witnesses. In **Section VI**, I refute Office of the Public Counsel witnesses Mark
18 Burdette and Kimberly K. Bolin's objections to the acquisition. In **Section VII**, I integrate
19 my observations and conclusions to form a recommendation regarding the Commission's
20 treatment of the proposed transaction.

21 Q. What do you conclude?

1 A. I draw three related conclusions. First, I find that Gateway's acquisition of UPL will not be
2 detrimental to the public interest, and, in certain respects, will further the public interest.
3 Second, I find that Gateway is fit to engage in the purchase and operation of existing
4 capacity ** _____ ** Third, I find that the
5 objections raised on behalf of Laclede, the Staff, and the Office of the Public Counsel are
6 unfounded, misleading and/or irrelevant to the issue of the public interest surrounding this
7 transaction. More specifically, those objections to the transaction fall largely into the
8 categories of: (1) advancing the interests of parties other than the public at large (as in the
9 case of many of Laclede's objections as stated by Dr. Pflaum); (2) asking for an
10 unreasonable—and inherently unobtainable—specificity of ** _____ **
11 and competitive plans (as in the case of Staff witness Ms. McKiddy and Public Counsel
12 witness Mr. Burdette); and (3) objecting in general to elements of ratemaking, such as the
13 treatment of acquisition premia, that are not being claimed by Gateway (as in the case of
14 Public Counsel witness Ms. Bolin and others).

15 Q. What is your recommendation to the Commission?

16 A. Gateway will bring an independent pipeline competitor, run by gas pipeline industry
17 professionals with great experience, to the St. Louis region and the surrounding regions that
18 the pipelines cover. At the same time, it has committed to continuing the rates and levels of
19 service that MGC and MPC customers already receive. As such, I recommend that the
20 Commission approve Gateway's acquisition of UPL's capital stock, on the grounds that the
21 acquisition will not be detrimental to the public interest and that Gateway is capable of
22 owning and operating MGC and MPC.

1 **II. GATEWAY'S ACQUISITION OF MGC AND MPC IS NOT**
2 **DETRIMENTAL TO THE PUBLIC INTEREST**

3 Q. How do you define the "public interest?"

4 A. Utility customers have basic—and comparatively ancient—rights under the common law to
5 safe, adequate and reliable service at reasonable prices. To be sure, the definitions of
6 "adequate" and "reasonable" are sometimes open to debate. Nevertheless, utility regulation
7 in the U.S. has long ago settled the basic meanings of these terms in order to craft a reliable
8 and fairly predictable regime for regulating investor-owned utility businesses that provide
9 service to the public. Toward that end, the level of service quality and reliability is subject
10 to periodic scrutiny and analysis and the level (or, more generally, the pathway) of prices is
11 determined in well-defined rate cases.

12 Q. From your perspective, will the acquisition be detrimental to the public interest?

13 A. No. On the contrary, I conclude that the transaction is in the public interest and that the
14 Commission should thus approve it.

15 Q. Please explain your position.

16 A. My reasoning stems from two separate conclusions. I find that: 1) from a traditional
17 regulatory perspective, the transaction has no effect on the public interest; and that 2) the
18 acquisition will shift company affiliations in such a way as to increase gas pipeline
19 competition in the area, an effect that can only further the public good. I discuss each of
20 these conclusions in turn.

1 **A. Gateway's Acquisition from a Regulatory Perspective**

2 Q. Please explain why, in the regulatory context, the transaction will not be detrimental to the
3 public interest.

4 A. To assess the acquisition's effect on the public interest from a regulatory perspective, I
5 must consider its effects on the rates and the service quality experienced by customers of
6 MGC and MPC. With respect to the basic function of regulation, the status quo will not
7 change. Gateway will not be able to influence the prices it charges or the service quality it
8 provides on MGC and MPC any more than UtiliCorp currently can.

9 Q. Could Gateway possess any additional means to raise rates on MGC and MPC?

10 A. No. From a regulatory perspective, nothing in the acquisition changes the nature of the
11 regulated prices that either MGC or MPC can charge its consumers. MGC and MPC will
12 continue to be regulated by the Commission, and they will continue to provide services to
13 their customers pursuant to the rates, rules, regulations and other tariff provisions currently
14 on file with and approved by the Commission. Gateway is not requesting a rate increase for
15 either MGC or MPC in this proceeding.¹ Thus, there is no regulatory perspective from
16 which to conclude that customers will be harmed by the acquisition. As such, there is no
17 economic policy reason to conclude that the acquisition is detrimental to the public interest,
18 and I recommend that the Commission approve of Gateway's request to acquire UPL's
19 capital stock from UtiliCorp.

¹ Direct Testimony of David J. Ries, July 5, 2001, page 3, lines 7-8.

1 Q. Could Gateway possess any additional means to provide a lower quality of service on MGC
2 and MPC?

3 A. No. As I stated above, MGC and MPC will continue to be regulated by the Commission.
4 The Commission will retain the authority to regulate the terms and conditions of service
5 rendered by MGC and MPC as provided by law. Thus, Gateway will experience neither a
6 new ability nor a new incentive to decrease the quality of service on MGC or MPC.

7 As Mr. David J Ries states in his direct testimony in this proceeding, UtiliCorp will transfer
8 all existing procedures it currently uses to effect the operations of MGC and MPC to
9 Gateway at the close of the acquisition transaction. The existing O&M procedures, welding
10 procedures, damage prevention program and membership in the Missouri One Call System,
11 Operator Qualification Program, Public Education Program and Anti-Drug and Alcohol
12 Misuse Plans will all become plans under Gateway's ownership. Furthermore, these plans
13 will be administered by the same individuals that currently administer them and report
14 compliance at the field operating level, subject to Gateway's right to modify those
15 procedures in the future, as necessary and appropriate.²

16 **B. Gateway's Acquisition from a Competitive Perspective**

17 Q. What is the relevance of the "competitive perspective?"

18 A. While basic regulation of investor-owned utilities presumes the existence of a natural
19 monopoly, it is often the case that some level of rivalry between different service
20 providers—competition—also provides a benefit to customers by securing lower prices or

² Direct Testimony of David J. Ries, July 5, 2001, page 5, line 17 - page 6, line 3.

1 more innovative and responsive services. Particularly in the gas pipeline industry,
2 competition has changed the nature and price of service in many regions of the country.
3 Even while basic pipeline prices continue to be regulated in a more-or-less traditional
4 fashion, competition in the construction and expansion of pipelines and in the provision of
5 service on existing pipelines is a fact of life for many regions of the country—including the
6 St Louis region and the surrounding regions covered by MGC and MPC. It is in these areas
7 that the acquisition adds a new, independent player and the prospect for greater competition
8 than before.

9 , In order to deal with the potential for new competition owing to the acquisition, I should
10 explain a few terms relating to the definition of the market within which to assess the
11 competitive impact of the acquisition.

12 Q. What is the relevant market within which to assess the acquisition's potential effect on
13 competition?

14 A. When defining a relevant market, we must consider both the relevant product market and
15 the relevant geographic market. The relevant product market is gas pipeline transport
16 capacity and the relevant geographic market is made up of the St. Louis region destination
17 market and the destination markets in the surrounding areas that the pipelines cover.

18 Q. Please explain the term "relevant product market."

19 A. The relevant product market includes all services that are good alternatives to the service
20 offered by the companies in question. This definition both serves commonsense and is
21 consistent with how the FERC deals with product markets when considering gas
22 transportation pipelines. In this case, as I stated above, the relevant product market is gas

1 pipeline transport capacity. The capacity can be offered either by the pipeline companies
2 themselves or by those who hold rights to transport capacity on those pipelines. For
3 example, the major route of gas transport capacity to the St. Louis region is provided by
4 Mississippi River Transmission Company (MRT). Gas distributors and other firm
5 customers in the region hold most of MRT's capacity. MRT only "controls" a small
6 fraction of "unsubscribed" capacity on its lines. With respect to the rest, its capacity
7 holders, like Laclede in particular, have the durable rights to use or re-sell their capacity. In
8 calculating relevant market shares, the greatest shares go to the firm capacity holders with
9 only the unsubscribed capacity going to MRT itself.

10 Q. Please explain the term "geographic market."

11 A. It has become common, when defining relevant pipeline markets, to discuss local
12 "destination markets." The local nature of the gas pipeline transportation business is
13 obvious from a commonsense perspective—particularly when one considers buyers' points
14 of view. No matter where the supplies originate, a gas distribution utility must take that gas
15 from pipelines connected to its distribution system or an existing pipeline nearby (unless, of
16 course, there are producing wells inside the distributor's service territory).

17 In general, gas may be purchased by distribution companies or directly by large gas users
18 from any one of a large number of producers and producing areas. That gas may move over
19 any one of several pipelines before reaching customers. For a geographically immobile gas
20 customer (such as a distribution company), the choice of transporters is limited to the
21 pipeline companies in the immediate area. A pipeline that stops 100 miles distant cannot be
22 of service to the immobile gas customer. That is to say, all gas volumes must be

1 transported over *local* pipelines to reach the *local* destination market, regardless of the
2 transporting pipelines that are used upstream.

3 The relevant geographic market, in this case, is made up of the St. Louis region destination
4 market and the destination markets in the surrounding areas that the pipelines cover.

5 Q. How will Gateway's acquisition of UPL's capital stock increase competition in the above-
6 defined market?

7 A. Currently, UPL is affiliated with a downstream distributor. UtiliCorp, UPL's parent
8 company, also owns Missouri Public Service, which provides electric and natural gas utility
9 service in Missouri.³ MGC has three interconnects with Missouri Public Service.⁴

10 Once the acquisition takes place, MGC will have no affiliation with Missouri Public
11 Service even though Missouri Public Service will continue to hold rights to transport gas.
12 From a competitive perspective, this means that while the "subscribed" capacity on the
13 lines continues to be controlled by Missouri Public Service, a new, independent pipeline
14 company controlled by Gateway will control the "unsubscribed" capacity. In other words,
15 the competitive picture in the region will include one new, independent player. This new
16 independence can only promote rivalry among competing pipeline transporters (and holders
17 of transport rights) in the region. Increased competition can only benefit the public interest,
18 as it may lead to lower transport prices or improved quality of service.

³ Public Service Commission of the State of Missouri, In the matter of the Joint Application of Gateway Pipeline Company, Inc., Missouri Gas Company and Missouri Pipeline Company, case No. GM-2001-585, April 2001, Appendix 5, page 2.

⁴ Direct Testimony of Richard C. Kreul, July 10, 2001, page 4, lines 15-17.

1 **III. GATEWAY IS FIT TO OWN AND OPERATE MPC AND MGC**

2 Q. Please describe Gateway's ownership structure.

3 A. Mogas Energy L.L.C. (Mogas) will hold equity ownership in Gateway Pipeline Company,
4 with interests in Mogas owned by David J. Ries, Dennis M. Langley, and TCW Group, an
5 equity investment company.⁵ David J. Ries will serve as Gateway's President and CEO and
6 hold responsibility for the day-to-day management of MGC and MPC.

7 Q. In your opinion, is Gateway fit to own and operate MGC and MPC?

8 A. Yes. It is clear to me that Gateway is managerially, technically, and financially fit to
9 provide service to the public using MGC and MPC, especially when considering the
10 standards that the Commission has previously used in determining the public interest effect
11 of an acquisition.

12 Q. What do those standards entail?

13 A. In the Commission's Order approving the acquisition by Missouri-American Water
14 Company (MAWC) of United Water Missouri's (UWM) capital stock,⁶ the Commission
15 noted that, in determining whether or not an acquisition is in the public interest, it considers
16 such factors as:

17 "the applicant's experience in the utility industry; the applicant's history of
18 service difficulties; the applicant's general financial health and ability to absorb

⁵ Data Information Request, No. 3809.

⁶ Missouri Public Service Commission, In the matter of the Joint Application of Missouri-American Water Company and United Water Missouri, Inc., for Authority for Missouri-American Water Company to Acquired the Common Stock of United Water Missouri, Inc., and, in connection therewith, Certain Other Related Transactions, Report and Order, Case No. WM-2000-222, March 16, 2000.

1 the proposed transaction; and the applicant's ability to operate the asset safely
2 and efficiently."⁷

3 My discussion of Gateway's technical and managerial capabilities and its financial viability
4 addresses each of these issues and demonstrates that Gateway is capable of owning and
5 operating MGC and MPC.

6 **A. Technical and Managerial Capabilities**

7 Q. Why do you consider Gateway managerially and technically fit?

8 A. Gateway's ownership possesses a mix of technical and managerial experience in the natural
9 gas pipeline industry. David J. Ries has extensive experience in the management and
10 operation of gas pipelines in compliance with applicable regulations. This experience gives
11 Gateway ready access to industry experts who are well versed in complying with regulatory
12 requirements. By virtue of Mr. Ries's expertise and the fact that the existing field
13 personnel will continue to operate the pipelines on a daily basis, Gateway is clearly fit to
14 operate the pipeline in a safe and efficient manner. Additionally, TCW Group has been
15 providing investment management services for more than three decades, and it provides
16 Gateway with a solid equity foundation.

17 Q. Please explain why you consider Mr. Ries technically and managerially fit to serve as an
18 owner of MGC and MPC, as well its President and CEO.

19 A. Mr. Ries has over 27 years of energy industry experience, primarily in the natural gas
20 pipeline business, including direct management responsibilities involving engineering,

⁷ Ibid, page 5.

1 project development, operations, marketing, business development, strategic planning and
2 corporate development. He has had extensive executive experience in nearly all functional
3 activities of the natural gas pipeline business including administration, accounting and
4 finance, and government, supplier and customer relations. His employment history
5 includes 14 years with Enron Corp. and 11 years with Kinder Morgan, two of the largest
6 pipeline operators in the US today. At Enron, Mr. Ries had engineering oversight
7 responsibilities for over 27,000 miles of natural gas pipeline with approximately 1,500,000
8 operating horsepower utilized for gas compression.⁸ Mr. Ries was also involved in KN
9 Interstate Gas Transmission's acquisition of the Pony Express Pipeline, which was used to
10 provide additional capacity to the Kansas City market.⁹ He has had supervision
11 responsibilities for as many as 250 employees and he has recommended to corporate
12 management the acquisition of assets or projects exceeding \$1 billion.¹⁰

13 Q. Please explain why you consider Mr. Langley technically and managerially fit to serve as
14 an owner of MGC and MPC.

15 A. Although Mr. Langley will be serving as an equity investor and will not be involved in the
16 day-to-day operation of the pipeline, Mr. Langley has been active in the energy industry for
17 over two decades. Mr. Langley was president of The Bishop Corporation, which did design
18 and construction work for energy projects, largely in the Midwest. Mr. Langley was also

⁸ Direct Testimony of David J. Ries, page 6, line 22 - page 7, line 1.

⁹ Data Information Request, No. 3809

¹⁰ Direct Testimony of David J. Ries, page 7, line 8.

1 CEO of Kansas Pipeline Company, until 1999, which consisted of approximately 1200
2 miles of pipe¹¹ and employed approximately 70 persons.

3 Q. Please discuss the qualifications of TCW Group as an equity investor in Gateway.

4 A. As I mentioned above, TCW Group has been providing investment management services
5 since 1971. The oil and gas sector is one of TCW Group's specialties. As of December 31,
6 2000, TCW Group had total assets under management or committed to management of
7 approximately \$80 billion. TCW Group will provide Gateway with solid, experienced,
8 equity financing.

9 **B. Financial Viability**

10 Q. You have explained why you consider Gateway technically and managerially capable of
11 owning and operating MGC and MPC. On what grounds do you consider Gateway
12 financially viable?

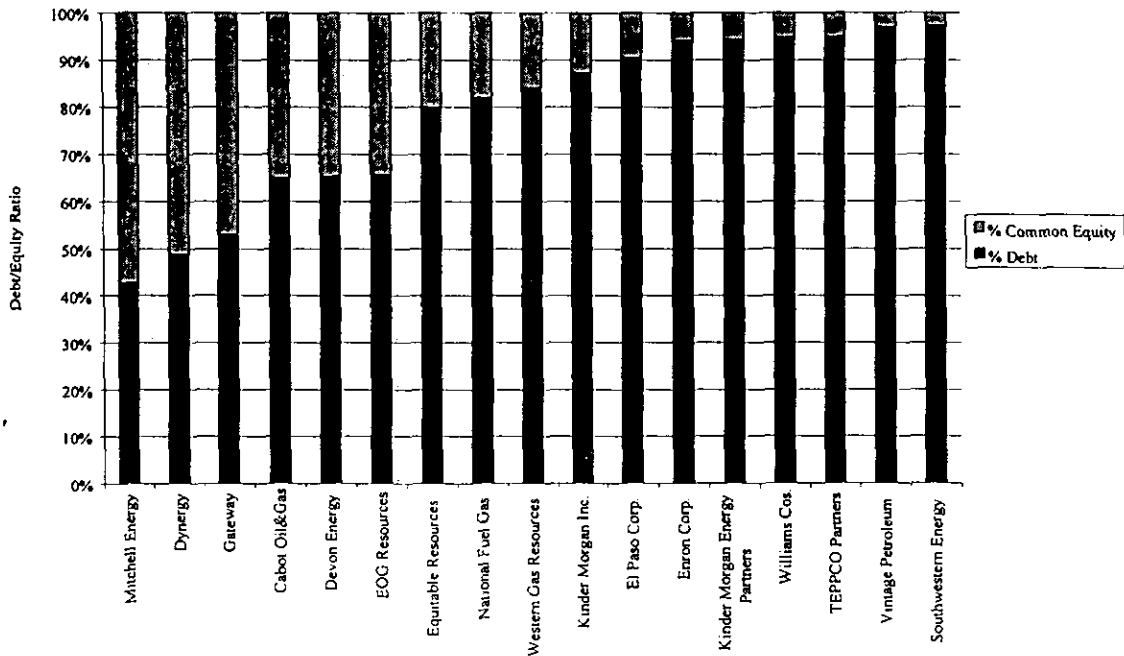
13 A. I conclude that Gateway is proposing a viable capital structure. Gateway will have a capital
14 structure of approximately 53% debt and 47% equity.¹² I have compared Gateway's capital
15 structure to those of the diversified natural gas companies—which includes natural gas
16 companies that engage in gas pipeline business—whose capital structures are published in
17 the *Value Line Investment Survey*. **Figure 1** shows Gateway's capital structure in relation
18 to those of the diversified natural gas companies that *Value Line* tracks.

¹¹ Data Information Request 3809.

¹² Direct Testimony of David J. Ries, page 8, lines 3-4.

Figure 1: Capital Structures of Diversified Natural Gas Companies and Gateway

Gateway has one of the lowest percentages of debt.



Source: Value Line Investment Survey, Edition 3, June 22, 2001

1 Q. What do you conclude from **Figure 1**?

2 A. I conclude that Gateway's proposed capital structure is reasonable. As **Figure 1**
 3 demonstrates, Gateway is proposing to finance its capital structure with a lower percentage
 4 of debt than all but two of the diversified natural gas companies recorded in *Value Line*.

5 Q. On what other grounds to do consider Gateway financial viable?

1 A. I draw attention to the rebuttal testimony of David J. Ries, where Mr. Ries notes that even if
2 Gateway does not increase revenues with respect to UtiliCorp, it will be able to service its
3 debt and make positive returns.¹³

4 IV. OBJECTION TO LACLEDE'S FILING

5 Q. Could you summarize your objections to Christopher C. Pflaum's testimony of behalf of
6 Laclede?

7 A. Yes. I believe that Dr. Pflaum misstates the facts surrounding this proposed transaction. In
8 some cases he omits actual information and in other cases he makes statements that are
9 contrary to what I conclude the record would show in the cases he references. Additionally,
10 his recommendation against approval of the transaction is based on irrelevant and
11 unsubstantiated assertions about events and possible eventualities that I conclude are not
12 germane to the questions before the Commission. Ultimately, I conclude that Dr. Pflaum
13 better represents the interests of Laclede than the interests of the public at large.

14 Q. What are your specific objections to Dr. Pflaum's testimony?

15 A. My objections fall into four general categories: 1) I do not agree with Dr. Pflaum's
16 comparison of this situation to that of the Kansas Pipeline; 2) I find that that Dr. Pflaum
17 paints an inaccurate picture of Gateway's financial situation; 3) I disagree with Dr.
18 Pflaum's concerns ** _____ ** and (4)

19 I disagree with Dr. Pflaum's recommendations as they are designed generally to insulate

¹³ Rebuttal Testimony of David J. Ries.

1 Laclede from any future threat of rivalry or competition. I address each of these issues in
2 turn.

3 **A. Pflaum Draws Faulty Comparisons to Kansas Pipeline**

4 Q. Why do you disagree with Dr. Pflaum's comparison of Gateway to Kansas Pipeline?

5 A. The litigation history of Kansas Pipeline is complicated, but it centers, generally, on the
6 past efforts of an independent company (Kansas Pipeline and its affiliates) to break the
7 monopoly of the one interstate pipeline company serving Kansas City (i.e., Williams
8 Natural Gas). As has been the case in other instances of competitive entry into a largely
9 regulated arena, entry barriers (including the cost-raising device represented by intense
10 litigation) were thrown up by incumbent suppliers—barriers that Kansas Pipeline, the
11 competitive entrant, sought to surmount. Ultimately, the Kansas Corporation Commission
12 (KCC)—which had approved the entry of Kansas Pipeline for competitive reasons—
13 sustained that entry.

14 My overall objections to Dr. Pflaum's description of those cases are: (1) he presents facts
15 in the case in a misleading fashion; and (2) he does not properly, in my opinion, reveal his
16 own role in testimony supporting the incumbent monopoly whose overall efforts were
17 aimed, in my opinion, to deter competitive entry. To be sure, I consider the Kansas
18 Pipeline example, where I was a witness for Kansas Pipeline in various proceedings, to be a
19 distraction to the Commission in its efforts to judge the fitness of those who run Gateway
20 Pipeline to own and operate MPC and MGC. I find no merit in re-arguing cases that have
21 long since been resolved by other Commissions. Nevertheless, to the extent that Dr.
22 Pflaum uses those Kansas Pipeline cases to call into question the fitness of the Gateway

1 owners to operate MPC and MGC, I think that his most misleading assertions merit brief
2 rebuttal.

3 Q. Please continue.

4 A. First, I draw attention to the relevant information that Dr. Pflaum has omitted regarding his
5 involvement in Kansas Pipeline issues. He notes that he has:

6 "testified, on behalf of Williams Natural Gas, in three previous matters
7 regarding Bishop [a pipeline owner and operator previously owned by Dennis
8 Langley], two in Kansas and one in Missouri."¹⁴

9 Dr. Pflaum fails to mention that his client in that case was the successor to Northwest
10 Central Pipeline. Northwest Central Pipeline, and its successor Williams Natural Gas, were
11 the chief protagonists against Kansas Pipeline and its predecessors for about fifteen years
12 (1984–1999). Williams Natural Gas and its predecessors, including Northwest Central,
13 which had the monopoly over transmission pipelines into Kansas City for perhaps fifty
14 years, intervened in numerous Kansas Pipeline regulatory proceedings, objecting to each
15 certificate or approval that Kansas Pipeline sought.

16 Williams Pipeline's vexatious and costly litigation against Kansas Pipeline and its affiliates
17 was duly noted when the FERC refused to shield Williams from the pipeline competition
18 offered by Riverside (an affiliate of Kansas Pipeline) and Phenix (predecessor to Kansas
19 Pipeline). The FERC stated:

20 "The fact that Riverside has targeted certain present and former customers of
21 WNG is evidence of the competitive nature of the proposal.... That WNG
22 might also have to discount its transportation rates in order to compete with

¹⁴ Rebuttal Testimony of Christopher C. Pflaum, page 3, lines 15-19.

1 Riverside is anticipated and natural consequence of an openly competitive
2 marketplace.

3 "WNG further argues that the benefits to be derived from Riverside's proposal
4 are illusory and the harm that will result to WNG and its customers outweighs
5 any benefit. As we have previously stated herein, we do not believe the benefits
6 of Riverside's proposal are illusory. The harm WNG complains of, if it occurs
7 at all, will be the result of competition in the transportation market, provided all
8 of the players comply with appropriate regulations. We have repeatedly voiced
9 our intention to foster a vigorously competitive open-access transportation
10 market. Even where, as here, the new services may by-pass an already
11 established provider of transportation service so that one pipeline may gain
12 customers while another may lose business, we maintain our belief that this
13 situation is no reason to depart from our policy that the public interest is best
14 served by allowing the market to determine who will provide service. We have
15 also stated that we are reluctant to shield a local distribution company from the
16 forces of competition we have been fostering in the natural gas industry. We see
17 no reason to shield an interstate pipeline, such as WNG, from similar
18 competition. [Emphasis added.]

19 "In sum, we reject the substance of WNG's protest. WNG has not raised any
20 material issue of fact which would warrant an evidentiary hearing in this
21 Proceeding. We, therefore, deny WNG's request for such a hearing."¹⁵

22 In another instance, the FERC denied Williams' opposition to Phenix's (Kansas Pipeline's
23 predecessor) request for rate approval pursuant to 284.123(d)(2):

24 "Although the Commission encourages participation by interested parties in
25 proceedings to establish rates of intrastate pipelines, it looks with disfavor on
26 Northwest Central's apparent strategy in this proceeding to bar Phenix's
27 [predecessor to Kansas Pipeline] entry into the NGPA section 311 market as a
28 potential competitor. Far from aiding the Commission's determination of fair
29 and equitable rates, Northwest Central has used incongruous positions, ill-
30 defined "Questions," and innuendo as attempts to persuade us to disapprove
31 Phenix's rate. Simply put, Northwest Central has not proposed a different rate
32 or appropriate rate methodologies; it has tried only to negate Phenix's
33 presentation in an apparent effort to eliminate competition from a new intrastate
34 pipeline."¹⁶ (emphasis added)

¹⁵ 48 FERC 61,309 at 62,016 (Sept. 18, 1989).

¹⁶ 32 FERC 61,096, July 23, 1985.

1 These regulatory decisions are inherently accurate portrayals of a familiar story—the
2 attempts by an incumbent monopolist to deter entry by driving up the costs of the entrant
3 through, among other means, excessive litigation. It is disingenuous for Dr. Pflaum to
4 portray Kansas Pipeline, as opposed to Williams and its predecessor Northwest Central, as
5 the cause of undesirable and unproductive of litigation.

6 Q. Does Dr. Pflaum make any other misrepresentations regarding Kansas Pipeline?

7 A. Yes. On page 6 of his testimony, Dr. Pflaum claims that:

8 “KPP is currently in litigation with WRI’s successor in Kansas, the Kansas Gas
9 Service division of Oneok, over KPP’s alleged breach of the Linchpin and
10 Wraparound settlements.”¹⁷

11 On the contrary, the pending litigation between Kansas Gas Service (KGS) and Kansas
12 Pipeline Company does not deal with the so-called Linchpin and Wraparound agreements
13 or settlements. KGS and Kansas Pipeline Company have a pending dispute regarding
14 certain provisions of a settlement of KPP’s rate case before the KCC in 1997 and related
15 regulatory proceedings.¹⁸

16 Q. Do you find any other incongruities in Dr. Pflaum’s discussion of Kansas Pipeline
17 Company?

18 A. Yes. Dr. Pflaum also implies that Kansas Pipeline has been perpetually involved in rate
19 cases, a “significant array of litigation relating to gas supply and transportation

¹⁷ Rebuttal Testimony of Christopher C. Pflaum, page 6, lines 6-8.

¹⁸ OneOk, Inc. vs. Kansas Pipeline Company; et al, Case No. 99-C 06574, Johnson County, Kansas District Court.

1 arrangements.”¹⁹ He repeats this implication later in his testimony when he urges the
2 Commission to impose new restrictions on MPC and MGC to “prevent litigation or threats
3 of service interruptions from being used to secure rate increases.”²⁰ Dr. Pflaum’s
4 implication is inaccurate. From 1984 until November 1999, Kansas Pipeline and its
5 predecessors and successors filed two rate cases, one before the KCC in 1993²¹ and one
6 when FERC directed such a filing in 1997.²²

7 Q. Do you have anything else to add on this topic?

8 A. Yes. One of Dr. Pflaum’s most serious factual inaccuracies relates to his criticisms
9 regarding Kansas Pipeline’s operational reliability—implying that there might be an
10 operational problem with Gateway. He claims operational difficulties existed between
11 Kansas Pipeline and Western Resources (WRI).²³ However, he does not mention
12 supportive statements made by WRI regarding the operational reliability and flexibility of
13 Kansas Pipeline and its affiliates one year after these alleged operational problems
14 occurred.²⁴

15 Further indication of Dr. Pflaum’s inaccurate representation of Kansas Pipeline’s
16 operational reliability is his reference to a “request for emergency show cause proceeding

¹⁹ Rebuttal Testimony of Christopher C. Pflaum, page 4, lines 14-15.

²⁰ Rebuttal Testimony of Christopher C. Pflaum, page 15, lines 18-19.

²¹ KCC Docket No. 190,362-U.

²² FERC Docket No. CP96-152-000.

²³ Rebuttal Testimony of Christopher C. Pflaum, page 7, lines 1-3.

²⁴ See: Direct Testimony of William E. Brown, Consultant for Western Resources, Before the Public Service Commission of the state of Missouri, Case No. GR-94-101, pages 8-10, where Mr. Brown testified to Kansas Pipeline’s “reliable gas supply.”

1 that WRI filed with the KCC.”²⁵ Once again, Dr. Pflaum fails to share the complete story.
2 After the KCC met with Kansas Pipeline officials and reviewed Kansas Pipeline’s
3 engineering data, it ordered in favor of Kansas Pipeline categorically and dismissed the
4 case. Indeed, the Staff of the Commission concluded the following in that case:

5 “The Staff has made an independent investigation of the issues raised in the
6 Complaint and recommended that the Commission dismiss the Complaint as
7 well. Staff indicated that based upon its evaluation of the physical capacity of
8 Kansas Pipeline, the system, as currently configured, is adequate to deliver the
9 current volumes contracted for by WRI. Further, Staff has reviewed the gas
10 supply contracts of Kansas Pipeline and concluded that, at the present time,
11 respondents have under contracts sufficient supplies of gas to meet their contract
12 demand with WRI.”²⁶

13 Q. Please summarize your finding with respect to Dr. Pflaum’s discussion of Kansas Pipeline.

14 A. Dr. Pflaum attempts to make the history of Kansas Pipeline relevant to the current
15 proceeding through: 1) poor comparisons of Gateway to Kansas pipeline; 2) disingenuous
16 characterizations that Kansas Pipeline was the cause, rather than the target, of excessive
17 litigation surrounding its competitive entry in the Kansas City market; and 3) allegations of
18 reliability issues on Kansas Pipeline that were later determined by the KCC to be without
19 merit. Thus, his recommendation against the Gateway acquisition on the grounds of events
20 that did or did not occur with respect to Kansas Pipeline should not serve as any indication
21 that the current acquisition will be detrimental to the public interest.

22 Dr. Pflaum seems also to be trying to treat this case as a rate case, which it is not. A
23 Commission Order approving UtiliCorp’s sale of its UPL stock to Gateway will not, in any

²⁵ Rebuttal Testimony of Christopher C. Pflaum, page 7, lines 14-15.

²⁶ Order of Dismissal, Western Resources, Inc., Complainant v. Kansas Pipeline Partnership, L.P. and Kansas Natural Partnership, L.P., Respondents, KCC Docket No. 191,842-U, March 14, 1995, page 2.

1 way, compromise this Commission's authority to decide any of these rate case issues raised
2 by the other parties. Any change in current approved rates, rate design, services, rate
3 boundaries, etc. would require a separate filing by MGC and/or MPC, due process, the right
4 to discovery, a hearing, and an Order from the Commission. Ironically, Dr. Pflaum has
5 failed to mention that the current owners of MGC and MPC have the existing right to seek
6 change in approved rates, rate design, services, etc. So approval or denial of this
7 transaction will not alter the "risks" alleged. Any such changes will require the requesting
8 party to obtain this Commission's approval, regardless of the identity of the parent
9 company.

10 **B. Dr. Pflaum's Statements Regarding Potential for Financial Distress are Overly**
11 **Negative**

12 Q. Does Dr. Pflaum make any statements that you disagree with regarding Gateway's financial
13 viability?

14 A. Yes. I disagree with Dr. Pflaum's negative portrayal of Gateway's financial standing and
15 financial potential, and thus, I disagree with his assertion that Gateway's financial position
16 should preclude the Commission from approving the acquisition.

17 Q. What specific comments do you find fault with?

18 A. Dr. Pflaum states that:

19 **
20 _____
21 _____
22 _____
23 _____
24 _____
25 _____

27

Q. What do you object to in this statement?

A. I find that Dr. Pflaum paints an unsupported negative picture of Gateway's prospective financial health. As I demonstrated earlier, in **Section III. B** of this testimony, Gateway's proposed capital structure, which includes approximately 53% debt,²⁸ as opposed the 60% that Dr. Pflaum suggests in his testimony, is perfectly reasonable with respect to that of the diversified natural gas companies reported on in *Value Line Investment Survey*. In fact, when I compare Gateway's capital structure to that of these diversified natural gas companies, as I do in **Figure 1**, I find that Gateway has the third lowest debt ratio (of 17 companies) in the sample.

Additionally, when Dr. Pflaum states that, “UtiliCorp had a negative return on equity on both MPC and MGC in 2000,” he ignores the fact that Gateway

****²⁹** Despite Dr. Pflaum's characterization of

Gateway's business plan as "speculative,"³⁰ Gateway is willing to

**** Success will lead to more competition**

in the St. Louis and surrounding areas that the pipelines cover and it will lead to more

²⁷ Rebuttal Testimony of Christopher C. Pflaum, page 8, lines 10-19.

²⁸ Direct Testimony of David J. Ries, page 8, lines 3-4.

²⁹ Data Information Request 3815.

³⁰ Rebuttal testimony of Christopher C. Pflaum, page 9, line 22.

1 supply diversity for Laclede, Ameren and other LDCs in the MGC and MPC service area.
2 And in any event, current customers of MGC and MPC will have the same rate and service
3 quality protections they have now.

4 **C. Dr. Pflaum's Discussion ****

5 **

6 Q. What are your specific objections to Dr. Pflaum's discussion of **

7 **

8 A. I object to Dr. Pflaum's assertion that **

9 , ** signifies that the acquisition could be detrimental to the
10 public interest. Dr. Pflaum states that if Gateway is:

11 **

12
13
14
15 **31

16 Q. How do you respond to this statement?

17 A. I offer a similar, recent example, in which case the Illinois Commerce Commission (ICC)
18 discounted this sort of objection. The same concern that Dr. Pflaum is voicing in this
19 proceeding was articulated in the Reply Brief of Laclede Gas Company and Laclede Energy
20 Resources, Inc.³² in response to Illinois Gas Transmission Company and Nuevo Energy

³¹ Rebuttal testimony of Christopher C. Pflaum, page 10, lines 2-12.

³² State of Illinois Commerce Commission, Reply Brief of Laclede Gas Company and Laclede Energy Resources, Inc., in the matter of the Joint Application of Illinois Gas Transmission Company and Nuevo Energy Company for the certification of Illinois Gas Transmission Company as a Common Carrier by Pipeline and approval of rates and account, and for cancellation of the Certificate of Illini Carrier, L.P., Docket No. 98-0510.

1 Company's joint application for certification of Illinois Gas Transmission Company as a
2 Common Carrier by Pipeline and approval of rates and accounting and for cancellation of
3 the certificate of Illini Carrier, L.P. Laclede's brief stated:

4 "IGTC's acquisition of the Illini Carrier pipeline also creates the very real
5 possibility that jurisdiction over the pipeline could be transferred from the
6 Illinois Commerce Commission to the FERC. Such a loss of jurisdiction could
7 occur in two ways. First, the Illini Carrier pipeline could be physically
8 interconnected with MRT's system, and used to transport gas in interstate
9 commerce.... Second, the FERC could obtain jurisdiction over the pipeline
10 whether or not it is physically interconnected with MRT's system...

11 "FERC jurisdiction over these facilities would have several detrimental impacts
12 for Illinois ratepayers and local distribution companies... If the FERC obtains
13 jurisdiction over the Illini Carrier pipeline, Illinois LDCs will be subjected to the
14 risk of these types of bypasses [bypasses of local distribution companies], and
15 this is another reason that the proposed transaction is contrary to the public
16 interest."³³

17 In its Order and Certificate of Good Standing approving this acquisition,³⁴ the ICC barely
18 mentioned the issue of possible FERC jurisdiction raised by Laclede and others, and the
19 ICC never voiced it as a concern. Indeed, since the Order and Certificate of Good Standing
20 was granted allowing the acquisition, Laclede's concern regarding FERC jurisdiction has
21 not materialized. That is to say, no new FERC jurisdiction has accompanied the acquisition
22 by a FERC regulated pipeline of an intrastate pipeline regulated by the ICC.

23 Q. Can you provide any other examples from other jurisdictions to support your point?

³³ State of Illinois Commerce Commission, Reply Brief of Laclede Gas Company and Laclede Energy Resources, Inc., in the matter of the Joint Application of Illinois Gas Transmission Company and Nuevo Energy Company for the certification of Illinois Gas Transmission Company as a Common Carrier by Pipeline and approval of rates and account, and for cancellation of the Certificate of Illini Carrier, L.P., Docket No. 98-0510, pages 21-23.

³⁴ State of Illinois Commerce Commission, Order and Certificate of Good Standing, Docket No. 98-0510.

1 A. Yes. The FERC touched on these issues when it approved the SunShine Interstate
2 Transmission Company's (SITCO) application to construct an interstate natural gas pipeline
3 that would terminate at an interconnect with the proposed facilities of SunShine Pipeline
4 Partners (SunShine), an affiliate intrastate pipeline to be constructed in Florida.³⁵ The
5 FERC concluded that it would not have jurisdiction over the intrastate pipeline, SunShine,
6 although SunShine would be affiliated with an interstate pipeline, SITCO. The FERC
7 stated:

8 "We do not have jurisdiction over SunShine's proposed intrastate pipeline, since
9 it will be exempt from our jurisdiction under NGA section 1(o), the Hinshaw
10 Amendment.... we are unable to regulate facilities or services over which we
11 have no jurisdiction. Nothing in the NGA precludes SITCO and SunShine from
12 dividing the project into interstate and intrastate proposals. In fact, it is not
13 unusual, much less unlawful, for companies to create affiliates to avoid
14 regulation by one entity or quality for regulation by another."³⁶

15 This SunShine case demonstrates the FERC's willingness to acknowledge the difference
16 between inter- and intrastate pipelines and to refrain from seeking jurisdiction over
17 intrastate pipelines, even if they are connected to affiliated interstate pipelines.

18 Such examples demonstrate that the specter Dr. Pflaum raises **
19 _____
20 ** mirroring Laclede's position in the IGTC case in Illinois, is largely a non-
21 issue. Certainly, Dr. Pflaum's assertion that **
22 _____
23 ** a possibility that has
24 nothing to do with Gateway, as such, should not be afforded weight by the Commission.

³⁵ See: 67 FERC 61,229, SunShine Interstate Transmission Company, Docket Nos. CP93-361-000 and CP93-361-001, May 25, 1994.

³⁶ 67 FERC 61,229 at 61,702, May 25, 1994.

1 **V. REBUTTAL TO STAFF WITNESSES**

2 Q. What Staff comments do you respond to?

3 A. I respond to statements made by Phil S. Lock, Roberta A. McKiddy, Carmen J. Morrissey,
4 and Mark L. Oligschlaeger. As these witnesses raise similar objections, I integrate my
5 responses to their testimonies in the subsections below.

6 Q. On what grounds do you object to the statements made by Staff witnesses?

7 A. My objections fall into three general categories: 1) I disagree with Staff's assertions
8 regarding Gateway's financial viability; 2) I disagree with Staff's discussion of acquisition
9 adjustments; and 3) I disagree with Staff's statements regarding the possibility **

10 _____ ** As I address many of these issues
11 elsewhere in my testimony, I refer to other sections in my reply to the Staff.

12 **A. Staff's Portrayal of Gateway's Financial Situation is Unduly Negative**

13 Q. On what grounds do you object to Staff's assertions regarding Gateway's financial
14 viability?

15 A. I object on three grounds. First, I find that Staff overstates the implications of UtiliCorp's
16 financial performance with respect to MGC and MPC. Second, I find that Staff overstates
17 the degree of uncertainty inherent in Gateway's financial position. Third, I find that in
18 expressing its preference for UtiliCorp's continued ownership of the pipelines, Staff is
19 effectively promoting cross-subsidization between utilities.

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⁴⁰ Data Information Request 3815.

29

1 Regardless of UtiliCorp's financial performance owning and operating these pipelines,
2 Gateway has demonstrated that it will be able to make its undertaking financially viable.
3 As I state in **Section III. B** of my testimony, Gateway has demonstrated that it is financially
4 fit to own and operate these pipelines. Thus, the Commission should not consider
5 UtiliCorp's financial performance indication that Gateway's performance will be similarly
6 negative, and the Commission should not consider UtiliCorp's performance evidence that
7 the acquisition is detrimental to the public interest.

8 **2. Staff Overstates the impact of the "Unknowns"**

9 Q. What other faults do you find with Staff's portrayal of Gateway's financial state and its
10 financial potential?

11 A. I believe that Staff has grossly magnified the uncertainties that surround Gateway's current
12 and future financial status. Mr. Oligschlaeger states:

13 "In the absence of more concrete and detailed plans demonstrating **
14 _____ ** the Staff does not believe
15 credible evidence has been introduced demonstrating that the profitability of
16 these properties is likely to improve under Gateway ownership."⁴¹

17 Ms. McKiddy states that:

18 "Gateway provides no definitive plan of how it will make the operations of
19 MPC and MGC financial [sic] viable on a going forward basis."⁴²

20 Ms. McKiddy also states:

(...continued)

⁴¹ Rebuttal Testimony of Mark L. Oligschlaeger, page 6, line 20 – page 7, line 8.

⁴² Rebuttal Testimony of Roberta A. McKiddy, page 22, lines 15-16.

1 "Without such supporting documentation, Staff believes that pro forma financial
2 statements provided by Gateway are nothing short of speculative.... Staff is
3 concerned about the impact this proposed transaction may have on Missouri
4 ratepayers should Gateway fail to be successful in its operation of MPC and
5 MGC."⁴³

6 Q. Why do you disagree with Staff's conclusion that Gateway has not provided sufficient
7 financial information?

8 A. Staff, in these instances, is asking for the concrete plans of a company that will seek to
9 compete in providing additional capacity to the St. Louis region and the surrounding areas
10 that the pipelines cross. To be sure, Gateway has made a concrete commitment to maintain
11 service reliability and rates for existing customers (which, indeed, it must do since this is
12 not a rate case). With respect to competitive plans **

13 however, Staff asks for an unreasonable and ultimately unobtainable level of detail. That
14 level of detail regarding Gateway's competitive plans is unreasonable to provide as
15 Gateway would cede information to its competitors that would help to defeat Gateway's
16 competitive potential. In addition, the level of detail requested by Staff is inherently
17 unobtainable in the competitive pipeline capacity market that has developed since FERC
18 Order No. 636. Not to mention, until Gateway actually owns the pipelines, it will be unable

19 **

20
21 **

⁴³ Rebuttal Testimony of Roberta A. McKiddy, page 13, lines 7-9.

1 In any event, I assert that Gateway has provided a sufficient amount of financial
2 information to convince the Commission that the acquisition will not be detrimental to the
3 public interest.

4 **3. Staff Inadvertently Supports Cross-Subsidy Between Utilities**

5 Q. Would you like to point out any other errors in Staff's discussion of Gateway's finances?

6 A. Yes. I take issue with Staff's preference that UtiliCorp serve as the owner of MGC and
7 MPC rather than Gateway, on the grounds that Staff's rationale for this preference is
8 effectively based on support of cross-subsidization between utilities.

9 Q. Please explain the term "cross-subsidization."

10 A. Cross subsidies are said to exist when the costs associated with providing a service are
11 recovered through the prices charged for another service.

12 Q. What specific comments do you take issue with?

13 A. I take issue with Mr. Oligschlaeger's assertion that:

14 "...common ownership of the pipelines and the distribution plant by UtiliCorp
15 means that utility has more at stake in a continuance of gas service by MPC and
16 MGC than stand-alone pipelines owned by Gateway would."⁴⁴

17 I also object to Ms. McKiddy's similar statement that:

18 "the current operator has a successful track record in the State of Missouri and
19 sufficient financial resources necessary to provide safe and adequate service to
20 Missouri ratepayers and the incentive to continue operating these pipelines
21 despite the fact that reported earnings have been less than projected."⁴⁵

⁴⁴ Rebuttal Testimony of Mark L. Oligschlaeger, page 8, lines 10-12.

⁴⁵ Rebuttal Testimony of Roberta A. McKiddy, page 16, lines 9-12.

1 Q. Please explain your objections to these quoted portions of Staff testimony.

2 A. I believe that the statement by Mr. Oligschlaeger represents an archaic economic view of
3 the supposed benefits of vertical integration of gas distributors into pipeline transportation.
4 Events occurring in the U.S in the past decade, if not further into the past, have shown the
5 independent competitive potential of the latter, even if the former remains comprehensively
6 regulated. Distributors with affiliated pipeline companies will inescapably consider the
7 financial interest of their affiliates over the type of pipeline and supply basin competition
8 that can provide benefits for their customers. As such, I conclude that Mr. Oligschlaeger's
9 statements regarding the benefits of continued vertical integration should not be given
10 weight by the Commission.

11 Ms. McKiddy implies that the public interest would be best served by UtiliCorp's continued
12 ownership of the pipelines, under which MGC and MPC's financial performance is
13 subsidized by the rates charged for Missouri Public Service's (MPS) operations. Indeed,
14 such subsidization is the only reason that UtiliCorp can be said to have more "incentive" to
15 keep the pipelines operational in times of financial distress that Gateway does; UtiliCorp's
16 negative earnings with respect to MGC and MPC can be subsidized by rates charged by
17 MPS.

18 Q. In this respect, why would Gateway's ownership of MGC and MPC better serve the public
19 interest that UtiliCorp's ownership does?

20 A. Gateway's acquisition of MGC and MPC would signify the entry of a new, independent
21 player into the St. Louis destination market for natural gas transport capacity and into the
22 surrounding destination markets the MGC and MPC cover. Contrary to Staff's assertions,

1 Gateway would experience more incentive to realize positive earnings than UtiliCorp
2 currently does, because Gateway's negative performance could not be subsidized by the
3 rates charged by a distribution utility, as Staff suggests UtiliCorp's negative performance
4 can.

5 **B. Staff's Discussion of Acquisition Premiums is Ill-Informed**

6 Q. Having explained why you take issue with Staff's discussion of Gateway's finances, could
7 you explain why you consider Staff's concept of acquisition adjustments ill-informed?

8 A. Yes. Mr. Oligschlaeger asserts that the acquisition should only be approved on the
9 condition that Gateway agrees never to seek recovery of the acquisition premium associated
10 with the proposed transaction.⁴⁶ I object to this statement, because, as I explain in my
11 rebuttal to Office of the Public Counsel witness Ms. Bolin, who appears to hold similar
12 views to those of Mr. Oligschlaeger, in **Section VI. B.1**, the issue is irrelevant to the
13 determination of whether or not the acquisition is detrimental to the public interest.

14 **C. Staff Is Overly Concerned with the Possibility that the FERC Will Seek**
15 **Jurisdiction over MGC and MPC**

16 Q. Could you discuss your final area of contention with respect to Staff comments, the fact that

17 Staff gives too much weight to **

18 **

19 A. Yes. Staff asserts that: **

20
⁴⁶ Rebuttal Testimony of Mark L. Oligschlaeger, page 11, 4-6.

1 ** and that 2) **

2 ***

3 Q. Please continue.

4 A. Mr. Oligschlaeger remarks, **

5 **47 Ms. McKiddy shares this concern, stating,

6 **

7 ^{**48} Mr. Lock makes a similar comment,

8 asserting:

9 "Staff is concerned that the current gas cost recovery rates could increase even
10 more **

11 ** which could result in
12 even higher rates to existing customers on the Eastern District.”⁴⁹

13 Q. On what grounds to you disagree with Staff's comments?

14 A. I disagree with Staff's concerns on two counts. First, I find that Staff overstates **

15 ** Second, I believe

16 that Staff ignores the positive impact that the **

17 ** may have on the public interest. Thus, I disagree with Staff's suggestion that

****** implies that the

19 acquisition is detrimental to the public interest.

⁴⁷ Rebuttal Testimony of Mark L. Oligschlaeger, page 6, lines 5-6.

⁴⁸ Rebuttal Testimony of Roberta A. McKiddy, page 23, lines 16-18.

⁴⁹ Rebuttal Testimony on Phil S. Lock, page 4, lines 1-5.

1 1. **
2 _____ **
3 Q. Why do you believe that Staff overstates the likelihood **
4 _____ **
5 A. A number of examples from other jurisdictions lead me to this conclusion. I discuss them,
6 at length, in my rebuttal to Dr. Pflaum's testimony on behalf of Laclede in **Section IV. C** of
7 this testimony. I show that, in other similar instances **
8 _____
9 _____ **
10 Q. Do you have any comments to add to your discussion in **Section IV. C**?
11 A. Yes. I would like to respond to Ms. Morrissey's comparison of this situation to that which
12 brought Kansas Pipeline under FERC jurisdiction. I disagree with the following statement
13 made by Ms. Morrissey:
14 "This would have the potential for bringing some or all of the pipeline facilities
15 under FERC jurisdiction—similar to what happened with respect to the Kansas
16 Pipeline Company facilities that Mr. Langley owned in Kansas, Oklahoma, and
17 Missouri."⁵⁰
18 Q. Why do you disagree with the parallel that Ms. Morrissey draws between Kansas Pipeline
19 and MGC and MPC?
20 A. In stating ** _____ ** for the same
21 reasons that Kansas Pipeline did, Ms. Morrissey ignores the numerous differences between
22 the circumstances that surround MGC and MPC and the circumstances that surrounded

⁵⁰ Rebuttal Testimony of Carmen J. Morrissey, page 3, lines 3-8.

1 Kansas Pipeline. These two situations are materially different, and their differences render
2 them incomparable. The fact that Kansas Pipeline came under FERC jurisdiction does not
3 bear on **

4 Q. Please describe the specific differences between the Kansas Pipeline system and
5 MGC/MPG system, and explain why these systems are incomparable with respect to the
6 issue of **

7 A. At the time that it became FERC jurisdictional, the Kansas Pipeline system transported
8 natural gas from Oklahoma, through Kansas, and into Missouri, through over 1200 miles of
9 physically integrated pipe. The MGC/MPG system

10 **

11
12
13 ** the MGC/MPG system is and will remain an inherently an intrastate
14 system.

15 Q. Was the interstate nature of the Kansas Pipeline system the motivating force behind the
16 FERC's decision to obtain jurisdiction over this system?

17 A. Yes. The FERC noted the well developed interstate nature of the Kansas Pipeline system
18 when ordering it to become FERC jurisdictional:⁵¹ The FERC stated:

19 "The clear overriding purpose of the Kansas Pipeline, et al. system is to
20 transport natural gas across at least three states, i.e., in 'interstate commerce'
21 under any meaningful interpretation of that phrase. Thus, in 1994, KansOk,

⁵¹ 73 FERC 61,160, Order on Show Cause and Complaint and Consolidated Proceedings (November 2, 1995).

1 which purports to be an Oklahoma intrastate pipeline, delivered no gas to local
2 distribution companies in that state and only .01% of its gas to Oklahoma end
3 users. Instead, almost all of its deliveries, 92.772%, were to its affiliate
4 Riverside, which delivered these volumes to Kansas Pipeline... In other words,
5 the affiliates that comprise Kansas Pipeline, et al. operate in a manner
6 indistinguishable from other interstate pipelines. They receive gas in Oklahoma,
7 transport it into Kansas where some is delivered to customers there, and the rest
8 continues on its journey to other states."⁵²

9 The evolved interstate nature of the Kansas Pipeline system prompted the FERC to exert
10 jurisdiction over the pipeline system. The FERC stated that:

11 "The multi-state system developed by Kansas Pipeline, et al., which now
12 anchors its system firmly to the interstate grid, is materially different than the
13 system that existed when Riverside was first certificated and when Kansas
14 Pipeline received its certificate of limited jurisdiction under section 284.224 of
15 the regulations."⁵³

16 Clearly, for the reasons stated above, the Kansas Pipeline system and the MGC/MPC
17 systems are materially different in nature.

18 Thus, I do not believe that the Commission should consider the fact that the FERC obtained
19 jurisdiction over Kansas Pipeline any indication that **

20 ** particularly in light of the Sunshine case
21 and the IGTC case mentioned above.

22 2. **

23 Q. **

24 **

⁵² 73 FERC 61,160, pages 13-14.

⁵³ 73 FERC 61,160, page 13.

1 A. **
2
3
4
5 **

6 Q. Have you discussed each your objections to Staff's position?

7 A. Yes. I object to Staff's suggestion that the acquisition is detrimental to the public interest
8 on the grounds that Staff's portrayal of Gateway's financial status and potential status is
9 overly negative and Staff's fear of **
10 ** is grossly magnified.

11 **VI. PUBLIC COUNSEL WITNESS OBJECTIONS ARE NEITHER**
12 **RELEVANT NOR VALID**

13 Q. How is this section of your testimony organized?

14 A. In this section of my testimony, I address, in turn, the rebuttal and supplemental rebuttal
15 testimonies of Public Counsel witnesses Mr. Mark Burdette and Ms. Kimberly K. Bolin. I
16 begin by refuting Mr. Burdette's arguments against the acquisition.

17 **A. Problems with Mr. Burdette's Testimony**

18 Q. Why do you disagree with Mr. Burdette's assertions regarding the proposed transaction?

19 A. At the opening of his rebuttal testimony in this proceeding, Mr. Burdette states that he
20 objects to the transaction because "many of the variables and details of the transaction
21 remain unknown." He claims that he has been "unable to do a full financial analysis of this

1 deal due to a lack of substantial, known and measurable financial information, or due to
2 incomplete information.”⁵⁴ He repeats this claim in his supplemental rebuttal testimony,
3 stating that “the information provided has been insufficient to allow for complete
4 analysis.”⁵⁵ I do not conclude that Mr. Burdette’s concerns constitute sound justification
5 that the transaction should not progress. On the contrary, I believe that Mr. Burdette’s
6 concerns are both unfounded and irrelevant.

7 **1. Mr. Burdette Draws False Conclusions**

8 Q. Please elaborate.

9 A. Mr. Burdette’s claims that the assets of MGC and MPC can neither support the overall
10 purchase price that Gateway is paying for them nor service the capital and that “this places
11 the assets in financial jeopardy”⁵⁶ are poorly informed. His perspective cannot possibly be
12 as keen as that of the bank that is providing the debt financing and that is clearly satisfied
13 enough to supply the funds.⁵⁷

14 Additionally, I conclude that Gateway’s capital structure is well within the reasonable range
15 for its size and privately held status. The litmus test of reasonableness is the company’s
16 ability to secure arms length bank financing, which Gateway clearly has.⁵⁸

⁵⁴ Rebuttal Testimony of Mark Burdette, page 2, lines 11-14.

⁵⁵ Supplemental Rebuttal Testimony of Mark Burdette, page 2, lines 7-9.

⁵⁶ Rebuttal Testimony of Mark Burdette, page 3, lines 21-24.

⁵⁷ See Attachment to Staff DR No. 3810 and 3810 revised.

⁵⁸ See Attachment to Staff DR No. 3810 and 3810 revised.

1 **2. Mr. Burdette Makes Irrelevant Statements**

2 Q. Do you have any further objections to statements made by Mr. Burdette?

3 A. Yes. I find the following claim made by Mr. Burdette completely irrelevant to this
4 proceeding. In his rebuttal testimony Mr. Burdette states that:

5 “an analysis of what Gateway’s cost of capital will be after the transaction is not
6 possible because the company is unaware of the details of its financing
7 arrangements.”⁵⁹

8 In his supplemental rebuttal, he refers to the “murky picture” that Gateway is painting of
9 “the cost of capital that will result.”⁶⁰ The issue that Mr. Burdette raises in these statements
10 is not pertinent to this proceeding. Commissions examine companies’ costs in order to set
11 rates at the time of rate cases. Since Gateway is not seeking new rates (and, as such, there
12 is no rate case), Mr. Burdette’s complaint that the cost of capital is not predicable is not
13 germane to issue of public interest, the protection of consumers, or the value of the
14 transaction.

15 Q. Do you find any other of Mr. Burdette’s concerns to be irrelevant to this proceeding?

16 A. Yes. In his supplemental rebuttal testimony, Mr. Burdette raises the issue of the **

17 _____
18 _____
19 _____
20 _____
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⁵⁹ Rebuttal Testimony of Mark Burdette, page 3, lines 4-6.

⁶⁰ Supplemental Rebuttal Testimony of Mark Burdette, page 3, lines 11-12.

1 _____
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6 _____ **61

7 Q. ** _____

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18 _____ **

19 **B. Problems with Ms. Bolin's Testimony**

20 Q. Do you object to statements made by Public Counsel witness Ms. Bolin in her rebuttal
21 testimony in this proceeding?

22 A. Yes. I find that many of the issues Ms. Bolin raises are completely irrelevant to this
23 proceeding, as well.

⁶¹ Supplemental Rebuttal Testimony of Mark Burdette, page 3, line 19 – page 4, line 2.

1 **1. Ms. Bolin's Discussion of the Acquisition Premium is Irrelevant and Ill-**
2 **Informed**

3 Q. What specific objections do you find extraneous?

4 A. First, I find that Ms. Bolin's lengthy discussion of the acquisition adjustment (beginning on
5 page 4 of her rebuttal testimony) is not pertinent to this case, as Gateway is not seeking an
6 acquisition adjustment at this time. To demonstrate the impertinent nature of her
7 discussion, I draw attention to the Missouri Public Service Commission's Order approving
8 the acquisition by Missouri-American Water Company (MAWC) of United Water
9 Missouri's (UWM) capital stock.⁶² In this Order, the Commission asserted that because the
10 parties involved were not seeking to recover the acquisition premium associated with the
11 transaction at that time:

12 "The acquisition premium, which MAWC may seek to recover from ratepayers
13 in a rate case yet to be filed, is not a present detriment. The Commission is
14 unwilling to deny private, investor-owned companies an important incident of
15 the ownership of property unless there is compelling evidence on the record
16 tending to show that a public detriment will occur. [citation omitted] There is
17 no such compelling evidence in this record."⁶³

18 **2. Ms. Bolin's Discussion of Transaction Costs is Irrelevant**

19 Q. Do you have any other objections to issues that Ms. Bolin raises in her rebuttal testimony?

⁶² Missouri Public Service Commission, In the matter of the Joint Application of Missouri-American Water Company and United Water Missouri, Inc., for Authority for Missouri-American Water Company to Acquired the Common Stock of United Water Missouri, Inc., and, in connection therewith, Certain Other Related Transactions, Report and Order, Case No. WM-2000-222, March 16, 2000.

⁶³ Ibid, page 7.

1 A. Yes. Her discussion of transaction costs⁶⁴ is not germane to the issue at hand. This is not a
2 rate case, and Gateway has not requested to recover any transaction costs.

3 **3. Ms. Bolin's Discussion of Affiliate Transactions is Unrelated to this**
4 **Proceeding**

5 Q. Do you have anything else to add with respect to Ms. Bolin's testimony?

6 A. Yes. Ms. Bolin's discussion of affiliate transaction is similarly misguided. In her lengthy
7 discussion of affiliate transactions, which spans eight pages of her testimony, Ms. Bolin
8 never relates her concerns regarding affiliate transaction to the case at hand. Not once in
9 , those eight pages does she even mention MPC, MGC, UPL, UtiliCorp or Gateway.

10 As I have stated earlier in this testimony, the only change that will occur as a result of this
11 transaction is that Gateway, rather than UtiliCorp, will be the parent company of MGC and
12 MPC's parent, UPL. Ms. Bolin does not present any convincing arguments, or any
13 arguments at all, for that matter, as to why dangers regarding affiliate transactions will be
14 more immediate after the transaction. On the contrary, it is my opinion that Gateway—with
15 no affiliations—will be in a better position than UtiliCorp is to be an unfettered competitor.
16 As I explained above, UtiliCorp is also the parent company of a downstream distributor.
17 Thus, the proposed acquisition actually mitigates affiliate transaction issues, rather than
18 exacerbating them, as it removes an affiliation between a transporter and a distributor and
19 does not create any new affiliations.

⁶⁴ Rebuttal Testimony of Kimberly K. Bolin, pages 23-24.

1 demand in California and the subsequent rash of pipeline expansions and new pipeline
2 construction into California are indicative of the evolving nature of the market. For a
3 natural gas pipeline company to ** _____ ** prematurely could
4 only lead to increased costs that would either be passed to ratepayers or internalized by the
5 company, neither of which is a positive outcome and neither of which furthers the public
6 interest.

7 In addition, Ms. Bolin ignores the fact that a detailed strategic business plan would be
8 premature on the grounds that, because Gateway does not yet own MGC and MPC, it is not
9 able to talk seriously with its future customers to ** _____

10 _____
11 _____ **

12 Q. Do you have anything else to add regarding Ms. Bolin's argument concerning the "business
13 strategic plan?

14 A. Yes. I would like to reiterate my belief that the Commission should not give credence to
15 Ms. Bolin's concern about their being no written business strategic plan. As I have
16 explained, the absence of such a plan does not indicate that the acquisition will be
17 detrimental to the public interest. MGC and MPC will continue to be regulated as they are
18 now. If the Commission has issues with any of Gateway's ** _____ ** it will be
19 able to voice them at that time.

20 VII. CONCLUSIONS

21 Q. What do you recommend in this case?

1 A. I recommend that the Commission allow Gateway to purchase UPL's capital stock from
2 UtiliCorp and allow Gateway to operate MGC and MPC.

3 **A. Gateway's Acquisition is in the Public Interest**

4 Q. Why do you make this recommendation?

5 A. I conclude that Gateway's acquisition of UPL is in the public interest. From a regulatory
6 perspective, the shifting ownership of MGC and MPC's parent company will have no effect
7 on MGC and MPC's customers, as it will not lead to any particular changes in rates or
8 service quality. MGC and MPC will continue to be regulated by the Commission and will
9 continue to operate under the same regulatory rules that they are currently operating under.

10 To the extent that the change in ownership does affect the public interest, the effect will be
11 a positive one. Gateway's acquisition will remove an affiliation between a gas transporter
12 and a gas distributor, thereby increasing competition in the St. Louis destination market for
13 natural gas transport capacity and the surrounding destination markets that the pipelines
14 cover.

15 **B. Gateway is Capable of Owning and Operating MGC and MPC**

16 Q. Have any other factors contributed to your recommendation?

17 A. Yes. Additionally, I find that Gateway's ownership is fit to operate MGC and MPC. The
18 acquisition rests on solid financing and the major equity owners and the President and CEO
19 have decades of experience with the technical and managerial aspects of the natural gas
20 pipeline business.

1 **C. Neither Laclede, Staff, nor the Public Counsel Witnesses Provide Valid**
2 **Arguments Against the Acquisition**

3 Q. Do you think that the Commission's decision should be influenced by the arguments of
4 witnesses testifying on behalf of Laclede, Staff, or Office of the Public Counsel?

5 A. No. Reviewing the complaints made by Laclede, Staff, and Office of the Public Counsel
6 witnesses, I find these witnesses' objections and/or concerns to be either unduly pessimistic
7 (regarding Gateway's financial position and its possibilities for future earnings) or in error
8 (regarding Gateway's fitness to undertake the operation of the pipelines). I do not believe
9 that the Commission should factor those objections into its decision regarding the proposed
10 acquisition, for the reasons that I give above.

11 Q. Would you like to offer any concluding words?

12 A. For the reasons I summarize above in this section, I recommend that the Commission
13 approve Gateway's acquisition of UPL.

14 Q. Does this conclude your testimony at this time?

15 A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

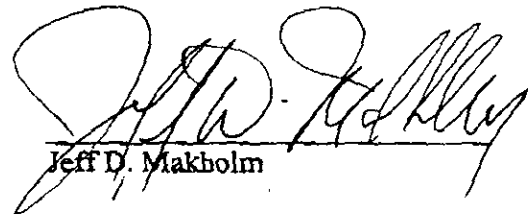
In the Matter of the Joint Application of)
Gateway Pipeline Company, Inc.,)
Missouri Gas Company and Missouri)
Pipeline Company.)

Case No. GM-2001-585


County of County of Dukes)
State of Massachusetts)

AFFIDAVIT OF JEFF D. MAKHOLM

Jeff D. Makholm, being first duly sworn, deposes and states that he is the witness who sponsors the accompanying testimony and schedules entitled rebuttal testimony; that said testimony and schedules were prepared by him or under his direction and supervision; that if inquiries were made as to the facts in said testimony and schedules, he would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of his knowledge, information and belief.


Jeff D. Makholm

Subscribed and sworn to before me this 20th day of August, 2001.


Notary Public

My Commission expires:

Sept. 4, 2004

JEFF D. MAKHOLM
Senior Vice President

National Economic Research Associates, Inc.
One Main Street
Cambridge, Massachusetts 02142
(617) 621-0444

Dr. Makhholm concentrates on the issues surrounding the privatization, regulation and deregulation of energy and transportation industries. These issues include the broad categories of pricing, market definition and the components of reasonable regulatory practices. Specific pricing issues include tariff design, incentive ratemaking, and the unbundling of prices and services. Issues of market definition include assessments of mergers, including the identification and measurement of market power. Issues of reasonable regulatory practices include the creation of credible and sustainable accounting rules for ratemaking as well as the establishment of administrative procedures for regulatory rulemaking and adjudication. On such issues among others, Dr. Makhholm has prepared expert testimony, reports and statements, and has appeared as an expert witness in many state, federal and U.S. district court proceedings as well as before regulatory bodies and Parliamentary panels abroad.

Dr. Makhholm's clients in the United States include privately held utility corporation, public corporations and government agencies. Focusing mainly in the areas of gas and electric utilities, he has represented dozens of gas distribution utilities, as well as both intrastate and interstate gas pipeline companies and gas producers. Dr. Makhholm has also worked with many leading law firms engaged in natural gas and electricity issues.

Internationally, Dr. Makhholm has directed an extensive number of projects in the utility and transportation businesses in 20 countries on six continents. These projects have involved work for investor-owned and regulated business as well as for governments and the World Bank. These projects have included advance pricing and regulatory work prior to major gas, railroad and toll highway privatizations (Poland, Argentina, Bolivia, Mexico, Chile and Australia), gas industry restructuring and/or pricing studies (Canada, China, Spain, Morocco, Mexico and the United Kingdom), utility mergers and market power analyses (New Zealand), gas development and and/or contract and financing studies (Tanzania, Egypt, Israel and Peru), regulatory studies (Chile, Argentina), and oil pipeline transport financing and regulation (Russia). As part of this work, Dr. Makhholm has prepared reports, drafted regulations and conducted training sessions for many government, industry and regulatory personnel.

Dr. Makhholm has published a number of articles in *Public Utilities Fortnightly*, *Natural Gas* and *The Electricity Journal*—many involving emerging issues of wholesale and retail competition in gas and electricity, including the issues of unbundled and competitive transport, secondary markets and stranded costs. He is a frequent speaker in the U.S. and abroad at conferences and seminars addressing market, pricing and regulatory issues for the energy and transportation sectors.

EDUCATION

UNIVERSITY OF WISCONSIN-MADISON,
MADISON, WISCONSIN

Ph.D., Economics, 1986

Dissertation: Sources of Total Factor Productivity in the Electric Utility Industry

M.A., Economics, 1985

BROWN UNIVERSITY
PROVIDENCE, RHODE ISLAND

Graduate Study, 1980-1981

UNIVERSITY OF WISCONSIN-MILWAUKEE
MILWAUKEE, WISCONSIN

M.A., Economics, 1980

B.A., Economics, 1978

EMPLOYMENT

1996-present	<u>Senior Vice President.</u> National Economic Research Associates, Inc., (NERA) Cambridge, Massachusetts.
1986-1996	<u>Vice President/Senior Consultant.</u> National Economic Research Associates, Inc., (NERA) Cambridge, Massachusetts.
1987-1989	<u>Adjunct Professor.</u> College of Business Administration, Northeastern University, Boston, Massachusetts
1984-1986	<u>Consulting Economist.</u> National Economic Research Associates, Inc., (NERA) Madison, Wisconsin.
1983-1984	<u>Consulting Economist.</u> Madison Consulting Group, Madison, Wisconsin.
1981-1983	<u>Staff Economist.</u> Associated Utility Services, Inc., Moorestown, New Jersey.

RECENT TESTIMONY (SINCE 1994)

Before the Federal Energy Regulatory Commission, Prepared Answering Testimony on behalf of the Association of Oil Pipe Lines. Case No: OR96-2-000. June 21, 2001. Subject: Light-handed regulation of oil pipeline tariffs.

Before the Illinois Commerce Commission, Direct Testimony on behalf of Commonwealth Edison Company, Case No. 01-0423, June 1, 2001. Subject: Economic pricing for unbundled retail distribution services.

Before the Federal Energy Regulatory Commission, Affidavit of Jeff D. Makholm, Ph.D. on behalf of Florida Power & Light Co. May 31, 2001. Subject: Pricing of transmission services.

Before the Public Utility Commission of the State of Oregon, Rebuttal Testimony on behalf of Portland General Electric Company. May 21, 2001. Subject: Cost of capital.

Before the State of Maine Public Utilities Commission, Direct Testimony of Jeff D. Makholm and Charles J. Zarkadas on behalf of Community Service Telephone Company. April 4, 2001. Subject: Cost of equity capital.

Before the State of New Jersey, Division of the Ratepayer Advocate, Cross-Answering Testimony on behalf of Public Service Electric and Gas Company, Case No. GM00080564, March 26, 2001. Subject: Forecasting the net market value for natural gas transportation and storage contracts.

Before the Indiana Utility Regulatory Commission. Joint Testimony of Jeff D. Makholm and Charles J. Zarkadas on behalf of Tipton Telephone Company, Inc, February 23, 2001. Subject: Cost of capital.

Before the Supreme Court of Victoria at Melbourne, in the matter of an appeal brought by TXU Electricity Limited of the Final Determination of the Office of the Regulator General of the 2001 to 2005 tariffs for the Victorian electricity distributors. Testimony on behalf the Office of the Regulator General, February 11, 2001. Subject: The distinctions between price cap and rate of return regulatory practices.

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Before the Public Utility Commission of Texas. Rebuttal Testimony on behalf of American Electric Power Texas Companies (Central Power & Light Company, Southwest Electric Power Company, West Texas Utilities Company), Entergy Gulf States, Inc., Reliant Energy HL&P, Southwestern Public Service Company, Texas-New Mexico Power Company, and TXU Electric Company. October 27, 2000. Subject: Capital structure and allowed return on equity.

Before the Federal Energy Regulatory Commission, "Assessment of PJM Owner's Transmission Enhancement Package," prepared in support of the PJM (Pennsylvania, New Jersey, Maryland) electricity transmission owners as part of their Order No. 2000 compliance filing. Docket No. RT01-2, October 11, 2000. Subject: Analysis of incentive package for transmission efficiency.

RECENT TESTIMONY (CONT.)

Before the Appeal Panel under Section 38(2) of the Office of the Regulator-General Act 1994, Victoria, Australia. In the matter of an appeal pursuant to s.37 of the Act brought by United Energy Ltd., Testimony on behalf of the Office of the Regulator General, October 10, 2000. Subject: The distinctions between price cap and traditional cost-based regulatory practices.

Before the Alberta Energy and Utilities Board, Evidence on behalf of UtiliCorp Networks Canada, September 1, 2000. Subject: Testimony on the elements of the company's performance based regulation plan.

Before the State of Maine Public Utilities Commission, Surrebuttal Testimony on behalf of Central Maine Power Company, Case No. 99-666, August 10, 2000. Subject: Empirical analysis and productivity offset for price cap formula.

Before the State of New Jersey, Division of the Ratepayer Advocate, Testimony on behalf of Public Service Electric and Gas Company, Case No. GM00080564, July 26, 2000. Subject: Forecasting the net market value for natural gas transportation and storage contracts.

Before the State of Maine Public Utilities Commission, Rebuttal Testimony on behalf of Central Maine Power Company, Case No. 99-666, June 22, 2000. Subject: Empirical analysis and productivity offset for price cap formula.

Before the Illinois Commerce Commission, Surrebuttal Testimony on behalf of Commonwealth Edison Company, Case No. 99-0013, Phase III, June 12, 2000. Subject: Investigation Concerning the Unbundling of delivery Services Under Section 16-108 of the Public Utilities Act.

Before the Illinois Commerce Commission, Rebuttal Testimony on behalf of Commonwealth Edison Company, Case No. 99-0013, Phase III, June 5, 2000. Subject: Investigation Concerning the Unbundling of delivery Services Under Section 16-108 of the Public Utilities Act.

Before the Illinois Commerce Commission, Rebuttal Testimony on behalf of Commonwealth Edison Company, Case No. 99-0013, Phase II, October 21, 1999. Subject: Billing credits for unbundled services.

Before the Illinois Commerce Commission, Rebuttal Testimony on behalf of Commonwealth Edison Company, Case No. 99-0115, October 15, 1999. Subject: Recouping nuclear decommissioning expenses for electric power plants.

Before the State of Maine Public Utilities Commission, Report on behalf of Central Maine Power Company, Case No. 97-580 (Phase II), October 12, 1999. Subject: Cost of service for unbundled electricity transmission and distribution.

Before the Illinois Commerce Commission, Direct Testimony on behalf of the Commonwealth Edison Company, Case No. 99-0013, Phase II, October 8, 1999. Subject: Billing credits for unbundled services.

Before the State of Maine Public Utilities Commission, Direct Testimony on behalf of Central Maine Power Company, Case No. 99-666, September 30, 1999. Subject: Empirical analysis and productivity offset for price cap formula.

Before the High Court of New Zealand, The Commerce Commission versus Caltex New Zealand Limited, Mobil Oil New Zealand and Shell New Zealand Limited. Reply Brief of Evidence, August 23, 1999. Subject: Price fixing in petroleum marketing.

RECENT TESTIMONY (CONT.)

Before the State of New Hampshire Public Utilities Commission, Direct Testimony on behalf of Chichester Telephone Company, Kearsarge Telephone Company, and Meriden Telephone Company, July 19, 1999. Subject: Determination of a fair cost of capital.

Before the High Court of New Zealand, The Commerce Commission versus Caltex New Zealand Limited, Mobil Oil New Zealand and Shell New Zealand Limited. Brief of Evidence, July 14 1999. Subject: Price fixing in petroleum marketing.

Before the State of Connecticut, Department of Public Utility Control, Prefiled Testimony on behalf of The Southern Connecticut Gas Company, Case No. 99-04-18, June 18, 1999. Subject: Recoverability of pipeline expansion costs.

Before the Illinois Commerce Commission, Surrebuttal Testimony on Behalf of Commonwealth Edison Company, Case No. 99-0117, May 17, 1999. Subject: Whether marginal cost pricing principles can provide the basis for an efficient tariff design for the company's delivery service tariffs.

Before the Illinois Commerce Commission, Rebuttal Testimony on Behalf of Commonwealth Edison Company, Case No. 99-0117, May 10, 1999. Subject: Whether marginal cost pricing principles can provide the basis for an efficient tariff design for the company's delivery service tariffs.

Before the State of Illinois, Illinois Commerce Commission. Direct Testimony on behalf of Commonwealth Edison Company, Case No. 99-0017, March 12, 1999. Subject: Whether marginal cost pricing principles can provide the basis for an efficient tariff design for the company's delivery service tariffs.

Before the Federal Energy Regulatory Commission, Reply Testimony on behalf of CITGO Petroleum Corporation, Case No. OR-99-1, March 19, 1999. Subject: To review and comment on Explorer Pipeline's application to the Federal Energy Regulatory Commission for market-based oil pipeline rates.

Before the State of Illinois, Illinois Commerce Commission. Reply Testimony on behalf of Commonwealth Edison Company, Case No. 99-0013, February 17, 1999. Subject: Unbundling services provided by electric distribution companies.

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RECENT TESTIMONY (CONT.)

In the matter of an arbitration to determine the price for treatment of Kapuni gas, before Sir Ian Barker QC between Shell Company and Todd Petroleum v. Natural Gas Corporation of New Zealand, November 17, 1998, Statement of Evidence of Jeff D. Makhholm.

Before the United States District Court for the Western District of Missouri (Riverside Pipeline Company, *et al*, v. Panhandle Eastern Pipe Line Company, Case No. 97-0642-CV-W-4), Supplemental Expert Report of Jeff D. Makhholm on behalf of Riverside Pipeline Company, *et al*, October 28, 1998.

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Before the Australian Competition and Consumer Commission (ACCC) and the Victorian Office of the Regulator General (ORG), prepared comments at a public hearing held in Melbourne regarding the cost of capital for Victoria's gas transmission and distribution franchises, on behalf of BHP Petroleum Pty Ltd, July 3, 1998.

Before the Federal Energy Regulatory Commission, Prepared Comments submitted on behalf of the Edison Electric Institute on the Commission's "ISOs and Transmission Pricing" Panel, Docket No. PL98-5-000. (April 16, 1998).

Before the High Court of New Zealand, Auckland Registry, Affidavit on Behalf of Viaduct Harbour Holdings, Ltd., Docket No. CP 786/97, August 8, 1997. Subject: Economic analysis of acquisition of land by a public authority

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Before the Federal Energy Regulatory Commission, Prepared Answering Testimony on behalf of Consolidated Edison Company of New York Inc., *et al*, Docket No RP95-197-000, March 25, 1997. Subject: The pricing of expanded transmission capacity.

Before the State Corporation Commission of the State of Kansas, Prepared Direct Testimony on behalf of Kansas Pipeline Partnership, Docket No. 97-WSRG-312-PGA, May 23, 1997, in the matter of the Partial Suspension of Western Resources' Monthly Purchased Gas Adjustment (PGA) Effective Date December 1, 1996. Subject: Prudence examination of several gas commodity and gas transportation contracts.

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Energy Company, et al., Docket No. RP95-197-000, May 28, 1996. Subject: The pricing of expanded transmission capacity.

Before the New Zealand Select Parliamentary Committee on Transportation, Comments on the Proposed Amendments to the Regulation of Airports in New Zealand (with Alfred E. Kahn), March 13, 1996. Subject: The oversight of airport authorities and conduct of airport pricing practices.

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Before The State Corporation Commission of the State of Kansas, Prepared Rebuttal Testimony on behalf of Kansas Pipeline Partnership, Docket No. 192,506-U, Docket No. 192,391-U, Docket No. 192,507-U, August 1, 1995. Subject: Competitive entry and pricing of new gas pipeline capacity.

Before the State of Rhode Island and Providence Plantations Public Utilities Commission, Prepared Rebuttal Testimony on behalf of Valley Resources, Inc., Case No. 2276, June 15, 1995. Subject: Cost of capital

Before a private arbitration panel, in the Matter of Marathon Oil Company v. Southern California Gas Company, Expert Rebuttal Report, April 21, 1995. Subject: Capacity costs on major U.S. pipeline companies.

Before a private arbitration panel, in the Matter of Marathon Oil Company v. Southern California Gas Company, Expert Initial Report, April 7, 1995. Subject: The effect of U.S. interstate gas pipeline capacity on gas contract prices and delivery conditions.

Before the State of Rhode Island and Providence Plantations Public Utilities Commission, Prepared Direct Testimony on behalf of Valley Resources, Inc., Case No. 2276, January 19, 1995. Subject: Cost of capital.

Before the Virginia State Corporation Commission, Prepared Direct Testimony on behalf of Virginia Electric and Power Company, Case No. PUE940052, January 17, 1995. Subject: Utility line extension and pricing policies.

Before the Virginia State Corporation Commission, Prepared Direct Testimony on behalf of Virginia Electric and Power Company, Case No. PUE940031, September 30, 1994. Subject: Utility line extension and pricing policies.

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Before the Kansas Corporation Commission, Prepared Rebuttal Testimony Regarding the Fair Rate of Return on behalf of Kansas Pipeline Partnership and Kansas Natural Partnership, Docket No. 190,362-U, September 23, 1994. Subject: Cost of capital.

Before the Kansas Corporation Commission, Prepared Rebuttal Testimony on Market Entry Cost Recovery on behalf of Kansas Pipeline Partnership and Kansas Natural Partnership, Docket No. 190,362-U, September 23, 1994. Subject: Gas pipeline market power in firm delivery capacity and evaluation of the economic benefits of pipeline entry.

Before the California Public Utilities Commission, Amended Direct Testimony on behalf of Sierra Pacific Power Company, Application 94-05-009, July 1, 1994. Subject: Cost of capital.

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Before the Indiana Utility Regulatory Commission, Prepared Rebuttal Testimony on behalf of Northern Indiana Fuel and Light Company, May 9, 1994. Subject: Evaluation of gas supply framework for new gas storage services.

Before the California Public Utilities Commission, Prepared Direct Testimony on behalf of Sierra Pacific Power Company, May 6, 1994. Subject: Fair rate of return.

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Before the Indiana Utility Regulatory Commission, Prepared Rebuttal Testimony on behalf of Northern Indiana Public Service Company, Cause No. 37306-GCA 39, March 30, 1994. Subject: Security of supply and methods for evaluating the appropriateness of gas storage investments.

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PUBLICATIONS AND WORKING PAPERS

"Performance-Based Regulation Options for Electricity Distribution in Alberta," -Paper written for UtiliCorp Networks Canada, July 19, 2000.

"Incentive Regulation Meets Electricity Transmission on a Grand Scale: FERC Order No. 2000 and PBR," *The Electricity Journal*, May 2000, pp.57-64.

"Gas and Electricity Sector Convergence: Economic Policy Implications." -Paper written for the World Bank, December 8-9, 1998.

"ISO's Not the Answer for Gas," *Natural Gas*, John Wiley & Sons, Inc., December 1997, pp. 1-6.

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"The Risk Sharing Strawman," *Public Utilities Fortnightly*, Public Utilities Reports, Inc., July 7, 1988. pp. 24-29.

"Evaluating the Threat of Municipalization, The Economics of Uncertainty with Municipalization Case Studies," with J. James Tasillo, Jr., NERA Working Paper, May 1988.

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"The FERC Discounted Cash Flow: A Compromise in the Wrong Direction," with C. J. Cicchetti, *Public Utilities Fortnightly*, July 9, 1987. pp. 11-15.

RECENT INTERNATIONAL REPORTS

"Natural Gas Pipeline Access Regulation". Report prepared for BHP Petroleum Pty Ltd., May 31, 2001.

"Manual de Procedimientos para el Sistema Uniforme de Cuentas Regulatorias Eléctricas (SUCRE) de México" (April 2000). The report includes an explanation of each of the accounts needed for regulation, recording procedures and the structure the information should take when reporting to the regulator.

"Investigation into Petronets' Liquid Fuels Pipeline Tariffs: Final Report" (March 9th, 2000). This report presents NERA opinions in the quasi-arbitration of the tariffs disputes in the oil industry in South Africa for their liquids pipelines.

"Seeking Genuine Gas Competition in NSW"; prepared for BHP Petroleum Pty. Ltd., February 18, 2000.

"Análisis y Revisión del Recurso de Revocatoria Interpuesto por la Compañía Boliviana de Energía S.A. (COBEE) a la Resolución SSDE N° 92/99 de la Superintendencia de Electricidad" (September 6, 1999). This report represents NERA's opinion on COBEE's appeal in the electricity tariff review process in Bolivia (report in spanish).

"Gas Sector Regulation Consultancy Services" report prepared for the Vietnam Oil and Gas Corporation, August 10, 1999.

"Natural Gas Demand Estimation for Guatemala, Honduras and El Salvador" (July 19th, 1999). This report done for an international consortium of companies presents calculations of prices and volumes of natural gas demand for three Central American countries if a pipeline is built from Mexico.

"Comments on East Australian Pipeline Limited Access Arrangements: (July 15, 1999). Report prepared on behalf of Incitec Ltd.

"Supplementary Submission to IPART on AGLGN's Proposed Access Arrangements" on behalf of Incitec Limited (April 27th, 1999). This submission discusses reload practices, customer contributions, operating expenses and recalculates charges for a user of the distribution network in New South Wales, Australia.

"Supplementary Submission to IPART on AGLGN's Proposed Costs and Tariffs" on behalf of BHP (April 15th, 1999). This submission explains how NERA recalculated charges for AGLGN in New South Wales, Australia.

"Initial Comments on AGLGN's Revised Access Arrangement Information" on behalf of BHP (March 20th, 1999). This submission presents NERA's comment to AGLGN submission to IPART in New South Wales, Australia.

"International Restructuring Experience" (February 12th, 1999). This paper surveys a number of countries whose experience of restructuring and competition in the electricity sector is directly relevant to the proposed changes in Mexico – Argentina, Australia, Chile, Guatemala, New Zealand, Norway, Spain, the US and the UK

"Report I: Review of the Regulatory Framework" (January 18th, 1999). This report presents the options for a natural gas framework in Peru.

"Conceptual Framework for the Reform of the Electricity Sector in Mexico: White Paper" (November 24th, 1998). This report represents the White Paper for restructuring of the electricity sector in Mexico which is being used in Congress for debate.

RECENT INTERNATIONAL REPORTS (CONT.)

"Precios del Gas Natural para la Generación de Electricidad en el Perú" (November 16th, 1998). This report analyzes different alternatives for the treatment of natural gas prices in the electricity tariff model (report in Spanish).

"Tariffs and Subsidies: Report for the Tariffs Group" (November 10th, 1998). This report presents recommendation on the path for tariffs and subsidies for 1999 to the Electricity Tariffs Group of the Government of Mexico.

"Gasoducto México-Guatemala: Informe Final" (October 22nd, 1998). This report analyzes the legal and regulatory framework in both Mexico and Guatemala and costs and volumes for the building of a natural gas pipeline connecting both countries. A copy of the report was given by President Zedillo (Mexico) to President Arzú (Guatemala) (report in Spanish).

"Checks and Balances in Regulating Power Pools: Seven case Studies. A Report for the Electricity Pool of England and Wales" (September 10th, 1998). This report surveys the regulation of power pools in electricity industries around the world.

"Fuels Policy Group: Recommendations" (September 11th, 1998). This report presents recommendations to the Government of Mexico on their fuels policies for the electricity sector.

"Análisis de Costos e Inversiones. Revisión Tarifaria de Transener" (August 25, 1998). Report given to ENRE (the Argentinean electricity regulator) on behalf of a Consortium of Generators on the analysis of costs and investments to be considered for the revenue requirement of the electricity transmission company (report in Spanish).

"Central America Pipeline: Regulatory Analysis and Proposal" (July 28, 1998). This report presents the regulatory analysis and development of a fiscal, legal and commercial framework proposal for gas import, transportation, distribution and marketing in El Salvador, Honduras and Guatemala regarding the proposed Central American Pipeline.

"Energy Regulation in El Salvador" (July 28, 1998). This report presents a deep analysis of the electricity and natural gas regulatory, legal and tax frameworks in El Salvador.

"Energy Regulation in Honduras" (July 28, 1998). This report presents a deep analysis of the electricity and natural gas regulatory, legal and tax frameworks in Honduras.

"Energy Regulation in Guatemala" (July 28, 1998). This report presents a deep analysis of the electricity and natural gas regulatory, legal and tax frameworks in Guatemala.

"The Cost of Capital for Gas Transmission and Distribution Companies in Victoria" (June 22, 1998). Report prepared for BHP Petroleum Pty Ltd.

"Principios Económicos Básicos de Tarificación de Transmisión Eléctrica. Revisión Tarifaria de Transener" (May 26, 1998). The main purpose for this report was to provide an economic and regulatory analysis of laws, decrees, license and documents of the tender to provide advice in the tariff review of Transener (the electricity transmission company in Argentina), to present an economic analysis of transmission tariffs and to provide an opinion on specific topics to be discussed in the public hearing. This report was written for a consortium of generators in Argentina (reports in English and Spanish)

"Asesoría en la Fijación de Tarifas de Transener y Normativa del Transporte, Benchmarking Study" (May 26, 1998). This report compares the costs of Transener (the electricity transmission company in Argentina) with those of other companies elsewhere for a consortium of generators (the electricity transmission company in Argentina).

"International Regulation Tool Kit: Argentina" (March 20, 1998). This document describes the natural gas regulatory framework in Argentina for BG.

RECENT INTERNATIONAL REPORTS (CONT.)

"Tarificación de los Servicios Que Prestan las Terminales de Gas LP" (January 9, 1998). The final report given to PEMEX Gas y Petroquímica Básica (México) for the determination of rates for LPG terminals.

"NERA-Pérez Companc Distribution Tariff Model" (January 5, 1998). This report explains the methodology behind NERA's calculations of distribution tariffs for Pérez Companc in Monterrey.

"Monterrey Natural Gas Market Assessment," (January 5, 1998). A series of reports were written to present the results of the market study of the demand for natural gas in the geographic zone of Monterrey to a company interested in bidding for the natural gas distributorship.

"Resolving the Question of Escalation of Phases (bb) and (cc) Under the Maui Gas Sale and Purchase Contract", prepared for the New Zealand Treasury, December 16, 1997.

"Timetable and Regulatory Review for the Monterrey International Public Tender," (December 5, 1997). A description of the necessary steps to bid for a distribution company as well as an explanation and analysis of natural regulations in Mexico for Pérez Companc.

"Economic Issues in the PFR for 18.3.1(I)(bb) & (cc)", prepared for the New Zealand Treasury, November 17, 1997.

"NERA's Distribution Tariff Model" (October 29, 1997). This report explains the methodology behind NERA's calculations of distribution tariffs for MetroGas.

"Evaluation Design Standards for MetroGas," (October 24, 1997). This report dealt with the analytical support resulting from work with MetroGas to create a meticulously-documented security criterion analysis that supported its efforts to obtain due recognition—and appropriate tariff treatment—for its costs.

"Ghana Natural Gas Market Assessment," prepared for the Ministry of Mines and Energy, Ghana (March-July, 1997). A series of four reports assessing prospective gas demand usage and netback prices for a number of proposed pipeline project alternatives.

"Final Report for Russian Oil Transportation & Export Study: Commercial, Contractual & Regulatory Component," prepared for The World Bank, June 25, 1997.

Response to FIEL's criticisms regarding NERA's report "Cálculo del Factor de Eficiencia (X)" (June 2, 1997).

"Impacts on Pemex of Natural Gas Regulations" prepared for Pemex Gas y Petroquímica Básica México, May 21, 1997.

"Market Models for Victoria's Gas Industry: A Review of Options," April 1997, prepared for Broken Hill Proprietary (BHP) Petroleum, to propose an alternative model for gas industry restructuring in Victoria, Australia.

"New Market Arrangements for the Victorian Gas Industry," prepared for Broken Hill Proprietary Petroleum; March 13, 1997.

"CEG Privatization: Comments to the Regulatory Framework," prepared for Capitaltec Consultoria Economica SA describing our comments with respect to the regulatory framework and the license proposed in the privatization of Riogas and CEG in Rio de Janeiro, Brazil; March 7, 1997.

"Determination of the Efficiency Factor (X)," prepared for ENARGAS, Argentina, January 24, 1997.

RECENT INTERNATIONAL REPORTS (CONT.)

"Determination of Costs and Prices for Natural Gas Transmission," prepared for Pemex Gas y Petroquímica Básica, México, December 19, 1996.

"Regulating Argentina's Gas Industry," a report prepared for The Ministry of Economy and The World Bank, November 26, 1996.

"Open Access and Regulation," prepared for Gascor, in the State of Victoria, Australia; (October 2, 1996).

"A Review and Critique of Russian Oil Transportation Tariffs (Russian Oil Transportation & Export Study; Commercial, Contractual & Regulatory Component)," prepared for The World Bank, June 13, 1996.

"Tariff Options for Transneft (Russian Oil Transportation & Export Study; Commercial, Contractual & Regulatory Component)," prepared for The World Bank, June 6, 1996.

"Comments on the Proposed Amendments to the Regulation of Airports in New Zealand," prepared for the New Zealand Parliament Select Committee hearings on the regulation of monopolies, March 13, 1996.

"Evaluating the Shell Camisea Project," prepared for Perupetro S.A., Government of Peru, December 8, 1995.

"Towards a Permanent Pricing and Services Regime," prepared for British Gas, London, England, November, 1995.

"Final Report: Gas Competition in Victoria," prepared for Gas Industry Reform Unit, Office of State Owned Enterprises, June 1995.

"Natural Gas Tariff Study," prepared for the World Bank, May 1995, consisting of:

Principles and Tariffs of Open-Access Gas Transportation and Distribution Tariffs
Handbook for Calculating Open-Access Gas Transportation and Distribution Tariffs

"Economic Implications of the Proposed Enerco/Capital Merger," prepared for Natural Gas Corporation of New Zealand, December 1994.

"Contract Terms and Prices for Transportation and Distribution of Gas in the United States," prepared for British Gas TransCo, November 1994.

"Economic Issues in Transport Facing British Gas," prepared for British Gas plc, December 1993.

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RECENT SPEECHES

"Role of Yardsticks in Cost & Service Quality Regulation", Speech to the London Regulated Industries Group, November 30, 2000.

"Natural Gas Issues: Retail Competition, LDC Gas Rate Unbundling, and Performance Based Rates", presented at the Wisconsin Public Utility Institute, November 17, 2000.

"Performance Based Ratemaking (PBR) in Restructured Markets, Speech to Edison Electric Institute Seminar in San Antonio Texas, April 27, 2000.

"Benchmarking versus Rate Cases and the Half Live of Regulatory Commitment", Speech given at the Australian Competition & Consumer Commission's Incentive Regulation and Overseas Development Conference, Sydney, Australia, November 19, 1999.

"Benchmarking, Rate Cases and Regulatory Commitment", Speech given at the Australian Competition & Consumer Commission's Incentive Regulation and Overseas Developments Conference, Sydney, Australia, November 14, 1999.

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"Sustainable Regulation for Russian Oil Pipelines", Presentation at Pipeline Transportation: A Linkage Between Petroleum Production and Consumers, Moscow, June 25, 1997.

"Rocks on the Road to Effective Regulation", Presentation to Brazil/US Aspen Global Forum, Aspen, Colorado, December 5-8, 1996.

"Stranded Cost Case Studies in the Gas Industry: Promoting Competition Quickly," —Speech presented at the MCLE Seminar: Retail Utility Deregulation, Boston, MA, June 17, 1996.

"Why Regulate Anyway? The Tough Search for Business-As-Usual Regulation,"—Panelist at St. Louis 1996, The Fifth Annual DOE-NARUC Natural Gas Conference, St. Louis, Missouri, April 30, 1996.

"Antitrust for Utilities: Treating Them Just Like Everyone Else"—Panelist at St. Louis 1996, The Fifth Annual DOE-NARUC Natural Gas Conference, St. Louis, Missouri, April 29, 1996.

"Natural Gas Pricing: The First Step in Transforming Natural Gas Industries"—One-Day Interactive Workshop on Pricing Strategy at The Future of Natural Gas in the Mediterranean Conference, Milan, Italy, March 27, 1996.

"Open Access in Gas Transmission,"—Speech given at the New England Chapter of the International Association for Energy Economics, Boston, Massachusetts, December 13, 1995.

"Light-Handed Regulation for Interstate Gas Pipelines,"—Speech given at the Twenty-Seventh Annual Institute of Public Utilities Conference, Williamsburg, Virginia, December 12, 1995.

"Ending Cost of Service Ratemaking,"—Speech given to the Electric Industry Restructuring Roundtable, Boston, Massachusetts, October 2, 1995.

"Promoting Markets for Transmission: Economic Engineering or Genuine Competition?"—Speech given at The Forty-Ninth Annual Meeting of the Federal Energy Bar Association, Inc., May 17, 1995.

RECENT SPEECHES (CONT.)

"End-Use Competition Between Gas and Electricity: Problems of Considering Gas and Electric Regulatory Reform Separately,"—Panelist on panel at ORLANDO '95, The Fourth Annual DOE-NARUC Natural Gas Conference, Orlando, Florida, February 14, 1995.

"Incremental Pricing: Not a Quantum Leap,"—Speech given at the 1995 Natural Gas Ratemaking Strategies Conference, Houston, Texas, February 3, 1995.

"The Feasibility of Competition in the Interstate Pipeline Market,"—Speech given at the Institute of Public Utilities Twenty-Sixth Annual Conference, Williamsburg, Virginia, December 13, 1994.

"A Mirror on the Evolution of the Gas Industry: The Views from Within the Business and from Abroad,"—Speech given at the 1994 LDC Meeting-ANR Pipeline Company, October 4, 1994.

"Creating New Markets Out of Old Utility Services," —Speech given at the Fifteenth Annual NERA Santa Fe Antitrust and Trade Regulation Seminar, Santa Fe, New Mexico, July 9, 1994.

"Sources of and Prospects for Privatization in Developed and Underdeveloped Economies," —Speech given at the Spring Conference of the International Political Economy Concentration and the National Center for International Studies at Columbia University, New York, March 30, 1994.

"Experiencias en el Desarrollo del Mercado de Gas Natural (Experiences in gas market development)," —Speech given at the conference "Perspectivas y Desarrollo de Mercado de Gas Natural," Centro de Extensión de la Pontificia Universidad Católica de Chile, November 16, 1993.

"The Role of Rate of Return Analysis in a More Progressive Regulatory Environment,"—Speech given at the Twenty-Fifth Financial Forum held by the National Society of Rate of Return Analysts, Philadelphia, Pennsylvania, April 27, 1993.

"Privatization of Energy and Natural Resources,"—Speech given at the International Privatization Conference "Practical Issues and Solutions in the New World Order," New York, New York, November 20, 1992.

PARTIAL LIST OF CLIENTS SERVED WORLDWIDE**ELECTRIC UTILITY**

Alberta Power Limited
 Atlantic Electric Company
 Boston Edison Company
 Central Hudson Gas and Electric
 Commonwealth Edison Company
 Commonwealth Energy System
 Conowingo Power Company
 Consolidated Edison Company
 Duquesne Light Company
 Green Mountain Power Company
 Long Island Lighting Company
 Nantahala Power Company
 New York State Electric & Gas Corporation

Niagara Mohawk Power
 Ohio Power Company
 Orange & Rockland Utilities
 Pennsylvania Power Company
 Pennsylvania Power and Light Company
 Philadelphia Electric Company
 Portland General Electric Company
 Public Service Company of New Hampshire
 Public Service Company of New Mexico
 Rochester Gas & Electric
 Sierra Pacific Resources
 Tampa Electric Company
 Western Massachusetts Electric Co.
 West Penn Power Company

GAS UTILITY

ARKLA, Inc.
 Atlanta Gas Light Company
 Bay State Gas Company
 Berkshire Gas Company
 Blackstone Gas Company
 Boston Gas Company
 Bristol & Warren Gas Company
 British Gas plc
 Brooklyn Union Gas Company
 Canadian Western Natural Gas
 Chattanooga Gas Company
 Colonial Gas Company
 Commonwealth Gas Company
 Connecticut Natural Gas Corp.
 Consolidated Gas Supply Corp.
 Elizabethtown Gas Company
 Empire State Pipeline Company
 ENAGAS (Spain)
 EnergyNorth, Inc.
 Essex County Gas Company
 Fall River Gas Company
 Fitchburg Gas & Electric Light Company

Gas and Fuel Corporation of Victoria
 Granite State Gas Transmission, Inc.
 Great Falls Gas Company
 Holyoke, Mass. Gas & Electric Dept.
 ICG Utilities (Ontario) Ltd.
 KN Energy, Inc.
 Middleborough Municipal Gas & Electric
 National Fuel Gas Distribution Corp.
 Natural Gas Corporation of New Zealand
 Natural Gas Pipeline of America
 Norwich Department of Public Utilities
 Pacific Gas Transmission
 Pemex Gas y Petroquímica Básica
 Pennsylvania Gas and Water Company
 Peoples Gas Light and Coke Company
 Providence Gas Company
 Southern Connecticut Gas Company
 Southwest Gas Corporation
 Transwestern Pipeline Company
 Valley Gas Company
 Washington Gas Light Company
 Westfield Gas & Electric Light Dept.
 Wisconsin Gas Company
 Yankee Gas Services Company

TELEPHONE UTILITY

Centel Corporation
 Continental Telephone Company of Illinois

General Telephone of Pennsylvania
 General Telephone Company of Ohio
 Pacific Bell Telephone Company

PARTIAL LIST OF CLIENTS SERVED WORLDWIDE (Cont'd.)**REGULATORY AND GOVERNMENT**

Delaware Public Service Commission

re: Delmarva Power & Light Company

District of Columbia Public Service Commission

re: Potomac Electric Power Company

Washington Gas Light Company

Massachusetts Municipal Wholesale Electric Company

The Government of Chile

Gas industry regulations

The Government of Argentina

Plan for privatized rail freight industry regulation

The Government of Tanzania

• Natural gas development and regulation plan for Songo Songo Island gas reserves.

Financing the development of gas reserves on Songo Songo Island with emphasis on payment guarantee mechanisms for foreign exchange.

The World Bank

re: Natural gas tariffs for Polskie Gornictwo Naftowe i Gazownictwo
(The Polish Oil and Gas Company)

re: Natural gas transport and distribution tariffs for Gas del Estado
(The Argentine State-owned gas utility)

re: Natural gas development for the Moroccan Gas System.

re: Natural gas transport and distribution tariffs for the Bolivian Gas Industry.

re: Natural gas development plan for Sichuan province of China.

OTHER

Air New Zealand

BHP Petroleum Pty Ltd

Centel Corporation

General Electric Company

Intel Corporation

Jamaica Water Supply Company

Nucor Steel Corporation

Parsons Brinckerhoff Development Group

MEMBERSHIP IN**PROFESSIONAL ORGANIZATIONS**

The American Economic Association

October 2000