Ontario Energy Board

EB-2005-0551

APPENDIX IIIA

Prepared Direct Testimony

of J. Stephen Gaske

On Behalf of

TransCanada PipeLines Limited

May 1, 2006

ONTARIO ENERGY BOARD

EB-2005-0551

Prepared Direct Testimony Of J. Stephen Gaske On Behalf of TransCanada PipeLines

1 1. Introduction

2	Q1.	Please state your name, position and business address.
3	A1.	My name is J. Stephen Gaske and I am President of Zinder Companies, Inc.,
4		7514 Wisconsin Avenue, Suite 550, Bethesda, MD 20814.
5	Q2.	Please describe your educational and professional background.
6	A2.	I hold a B.A. degree from the University of Virginia and an M.B.A. degree with a
7		major in finance and investments from The George Washington University. I also
8		received a Ph.D. degree from Indiana University where my major field of study was
9		public utilities and my supporting fields were in finance and economics.
10		
11		For the past 29 years, I have been engaged in consulting, studying, and teaching
12		about economic and financial issues related to regulated industries. During this time
13		I have testified or filed testimony or affidavits as an expert witness in numerous
14		regulatory proceedings in the United States and Canada. A detailed curriculum vitae
15		is contained in Attachment A of this testimony.

1	Q3.	What is the purpose of your testimony in this proceeding?
2	A3.	I was retained by TransCanada PipeLines Limited ("TCPL") to provide expert
3		advice on mechanisms for pricing and allocating access to long-term pipeline
4		capacity. This testimony addresses the use of long-term bid premiums in open
5		seasons for long-term firm capacity on the Union Gas Limited ("Union")
6		transmission system.
7	Q4.	How is your testimony organized?
8	A4.	After a brief summary of the issues and circumstances in this proceeding, I
9		address in Section 2 economic concepts related to the use of bid premiums to
10		establish for each expansion customer a long-term firm rate that is based on the
11		greater of its bid price or the cost of service. Section 3 discusses the conflict
12		between bid premiums and incentives for development of an efficient amount of
13		capacity. Section 4 discusses the inefficiencies that can result from undue price
14		discrimination. Section 5 discusses general pipeline industry practices concerning
15		allocation of new long-term capacity, and the final section presents the
16		conclusions of this analysis.
17	Q5.	Please summarize the conclusions that you reach in your testimony.
18	A5.	In most jurisdictions the primary purpose of rate regulation is to restrain the exercise
19		of market power in situations where there is little or no competition for a service in
20		which the public has an important interest. Two efficiency concerns with respect to
21		monopoly power are generally considered to be pre-eminent: lost output resulting

22 from excessive prices and undue discrimination in the rates charged to particular

1	customers. In addition, there is a simple equity concern that the overall welfare of
2	customers could be reduced if they are required to pay higher rates without receiving
3	offsetting benefits.
4	
5	Economic theory establishes that when a company has market power there usually is
6	a natural incentive to restrict the available capacity (or output) so as to extract a price
7	that is above the cost of service. The overall output and efficiency of an economy is
8	reduced by this exercise of market power because capacity that is needed and
9	efficient is not available.
10	
11	In addition, undue discrimination in the rates charged to various customers can
12	impede competition between companies that rely on the regulated service as an input
13	to another production process. For example, a gas-fired power generator that is
14	unduly required to pay more than its competitors for essentially the same gas
15	transportation service may be unreasonably disadvantaged in competing for the
16	market. This unequal treatment might discourage efficient, competitive production
17	of electricity. Bid-premium price discrimination also may subject some customers
18	to an exercise of market power of the sort that regulation generally is meant to
19	prevent. For example, the use of bid premiums in long-term contracts for new
20	capacity can lead to price discrimination and/or constrained capacity similar to the
21	outcome one would expect from an unregulated exercise of market power.

1	When a regulated company charges bid premiums in long-term contracts for new
2	capacity it can exercise market power to the detriment of unprotected customers and
3	the economy as a whole. In the circumstances of this proceeding, bid premiums in
4	long-term contracts should be presumed to be inefficient and inappropriate.

5 2. Background

6 Q6. Please describe the circumstances of Union's use of bid premiums?

7 A6. As described in TCPL's testimony, in recent years Union has told potential 8 customers that contracts for long-term expansion capacity will be awarded in 9 open seasons based on the total undiscounted revenues (bid price times contract 10 term) that a customer bids. Union also has provided an opportunity for customers to improve their chances of receiving capacity by offering to pay a bid premium 11 that exceeds the regulated tariff rate. To the extent that the amount of capacity 12 requested exceeds the amount of capacity that Union intends to construct, the 13 14 long-term contract bid premiums would be used to allocate access to the temporarily scarce capacity. However, regardless of whether there is in fact any 15 16 need to allocate access to capacity, those customers who bid a premium to the regulated rate and are awarded capacity, are required to pay the rate that they bid 17 for the entire period of their long-term contracts. Thus, the bid premiums may or 18 may not be necessary to allocate temporarily scarce capacity, but the bid 19 premiums serve to discriminate between customers on a long-term basis. Because 20 21 Union is the only pipeline in large areas of southern Ontario, some customers that

1		must rely on its pipeline capacity to reach particular markets may be under
2		pressure to pay a bid premium in order to ensure access to capacity.
3		
4		This long-term bid premium approach for allocating capacity that may be
5		temporarily scarce, or that may not be scarce at all, would weaken or deny
6		regulatory protections for all potential long-term customers.
7 8	Q7.	Do customers generally buy goods and services in order to improve their well- being, or welfare?
9	A7.	Yes. In voluntary transactions both the buyer and the seller should be better off,
10		or there is no reason for one party or the other to do the transaction. The benefit
11		to the customer is called a "consumer surplus" and the benefit to the seller is
12		called a "producer surplus." The consumer surplus is the difference between the
13		value that the consumer gets from a purchase and the price that the consumer
14		pays. The producer surplus is the additional revenues that a producer is able to
15		collect in excess of the cost (including the cost of capital) of providing service.
16	Q8.	Is an auction an efficient method for allocating scarce capacity?
17	A8.	In the short run an auction can be efficient for allocating short-term pipeline capacity
18		but, as discussed hereafter, an auction for long-term firm expansion capacity can be
19		inefficient unless the pipeline faces strong competition. In the short run, when the
20		amount of capacity cannot be readily changed, it is generally efficient to use an
21		auction or other pricing mechanism to allocate access to a fixed, given amount of
22		capacity, or to encourage usage when the short-run marginal cost of transporting

1	additional gas is low. For example, many pipelines use auctions for short-term
2	services to allocate capacity during times of capacity constraints; but, in the long
3	run, when demand for long-term firm capacity is sufficient the pipeline generally
4	will construct an expansion that relieves the constraint.

5 Q9. What does it mean to allocate capacity in the long run?

A9. 6 In economics the "long run" refers to the amount of time that it takes to adjust the 7 level of capacity to satisfy all of the demand that is willing to pay the cost of service. 8 Thus, the concept of allocating capacity in the long run generally makes no sense in 9 the context of most types of economic production, because there is no need to "allocate" in the long run when the "long run" is simply the length of time that it 10 11 takes to eliminate any shortages. The incongruity of allocating long-term capacity is especially germane to pipeline expansions because expansions generally should be 12 sized so as to meet all economically-justified demands (i.e., sufficient to serve 13 everyone willing to pay the related cost). Customers would be motivated to bid a 14 premium only if they expect that capacity is likely to remain inadequate after an 15 16 expansion. Uncertainty and doubts as to whether the pipeline will expand sufficiently to meet all economically-justified demands motivates customers to bid 17 18 more than cost to increase the probability that they are among the winning bidders. However, if customers expect that there are no physical limitations or adverse 19 regulatory incentives to undersize an expansion, there should be no fear and 20 uncertainty that shortages will remain after the expansion and, thus, there should be 21 22 no reason for anyone to bid more than a cost-based rate during an open season.

1 2	Q10.	Is it important to distinguish between allocation of capacity in the short run and allocation of capacity in the long run?
3	A10.	Yes. When demand exceeds capacity in the short run, there is not enough time to
4		address the shortage by expanding capacity. In this circumstance, a price in excess
5		of production cost (i.e., a bid premium) is an efficient means of allocating the
6		available capacity. However, in the long run it is most efficient to expand capacity
7		to meet the needs of the market.
8		
9		An open season involves long run considerations which are best addressed by
10		increasing capacity to meet the needs of the market. A company with market power
11		should be encouraged to provide the market with all economically-justified capacity.
12		However, by using an auction to allocate expansion capacity a company would be
13		applying a pricing tool that is most effective only in the short run, and thus
14		mismatched with the long run circumstances presented by an expansion open
15		season. Generally it would be more efficient to increase the size of the expansion
16		rather than construct an undersized expansion and use bid premiums to allocate
17		capacity.
18		
19		Thus, there is an essential distinction between: (i) short-term services that make
20		efficient use of capacity on existing facilities, but do not justify an expansion; and
21		(ii) long-term services for which a pipeline generally should construct an expansion
22		whenever practicable. In providing short-term services it is generally most efficient
23		to vary the <i>price level</i> to allocate access to a fixed amount of existing capacity.

1	However, for long-term services it is generally more efficient to set rates at a level
2	that reflects costs, and then vary the capacity level in response to increasing
3	demands.

4 3. Ensuring an Efficient Amount of Capacity

Should a regulator be concerned with the possible exercise of market power? 011. 5 A11. Yes. When a company possesses market power in the provision of an important 6 public service there often is a need for regulation to prevent needlessly high prices 7 and inefficiently restrained output. Otherwise these practices could reduce the 8 9 welfare of consumers, and society in general. Descriptions of the inefficiencies and 10 reductions in consumers' welfare associated with unregulated market power can be found in virtually any introductory textbook on microeconomic theory. 11

Q12. Does a company with market power have an economic incentive to restrain its capacity or output?

Generally, yes. A company with market power is one that can charge prices (or 14 A12. rates) that exceed its costs, and maintain those high rates indefinitely without fear of 15 losing business to competitors or other economic forces. Economic theory 16 17 demonstrates that a company with market power generally will be able to maximize 18 its profits if it (i) charges higher rates and (ii) produces less output than consumers would obtain in a competitive market. A primary purpose of regulating pipelines in 19 20 situations where they have market power is to promote the same rates and level of output that would be produced by effective competition, if it were feasible.¹ As a 21

¹ Kahn, A.E., *The Economics of Regulation: Principles and Institutions*, page 17.

- consequence, regulation often requires a company to set rates that collect revenues
 equal to costs in order to protect consumers from paying excessive rates.
- 3

4 As a corollary objective, regulation often also imposes on companies an 5 obligation to serve. This obligation means the company is required to construct facilities and provide service to everyone who is willing to pay rates that cover the 6 7 costs of service. In many situations an obligation to serve is a redundant measure because a company that is prevented from charging rates that exceed costs, will 8 9 find that it can generally maximize its profits by expanding its output or capacity 10 to serve all demand that is willing to pay the cost of service. Thus, in the long run, cost-based rates should provide customers with greater output or capacity 11 12 than they would otherwise expect from a company that exercises market power.

13 Q13. Can the exercise of market power harm consumers in other ways?

A13. 14 Yes. Obviously a customer that obtains capacity, but is forced to pay a rate that 15 exceeds costs, is harmed to the extent that it forfeits a portion of the consumer surplus that the customer might otherwise enjoy. In a highly competitive market, the 16 service provider would not be able to exercise market power by discriminating 17 against customers who place the highest value on the service. Instead, in a 18 competitive market, customers that place a high value on the service can respond to 19 20 discriminatory rates by simply electing to take service from another competing 21 provider of the service. In the long run, efficient competition should provide each

customer with non-discriminatory rates that are based on the costs incurred to
 provide the service.

3 4. Inefficiency of Price Discrimination

4 Q14. If excess revenues collected from new customers are used to reduce the rates of 5 other customers, would the market be effectively protected from the exercise of 6 market power?

7 A. No, some customers might be protected and others might not. To the extent that regulation is intended to protect customers from an unreasonable exercise of market 8 9 power, all customers that are exposed to the exercise of market power, including 10 expansion customers, should be entitled to regulatory protections. However, a 11 system of bid premiums for expansion capacity essentially would deny regulatory 12 protections for expansion customers. It is difficult to see any justification for a system that protects existing long-term firm customers from market power while 13 14 essentially de-regulating the rates that expansion shippers must pay for long-term firm service. 15

16

For example, the bid premium system that Union has used in recent years can induce expansion customers to pay long-term bid premiums to ensure access to new capacity. Customers that pay bid premiums in excess of the regulated rate will experience reduced profitability regardless of whether any allocation of capacity is actually necessary. At the same time, if surplus revenues are used to reduce the regulated rates that other, possibly competing, customers must pay, the price

1	disparity between expansion shippers and existing shippers would be increased. ²
2	Thus, an increasing trend toward the use of bid premiums for some long-term firm
3	customers, and using the revenues to reduce the rates of other long-term firm
4	customers, would magnify the level of price discrimination and further discourage
5	economic efficiency to the extent that the proposed bidding mechanism would
6	distort the costs and price signals in competitive end-use markets.
7	
8	In addition, absent effective regulation there may be circumstances in which a
9	regulated company is able to favor certain customers by constraining capacity and
10	driving the bid price for new capacity above the regulated cost-based rate level. In
11	this way, fewer competitors can obtain access to the market, and those competitors
12	that win capacity in the auction by bidding a premium may have difficulty
13	competing with existing customers who are not required to pay a premium.
14	
15	Finally, the Board should be concerned about the possibility that some expansion
16	shippers effectively might be captive customers, while other potential expansion
17	customers might have access to competitive alternatives. In this circumstance, long-
18	term bid premiums collected in an uncompetitive market might be used to reduce
19	long-term, firm rates in competitive markets and thereby undermine efficient
20	competition between pipelines in the long run.

² Assuming that beyond 2007, Union continues to include the premium bid for capacity in the revenue forecast and that the premiums continue to reduce the rate for all firm users of the Dawn-Trafalgar system, as describe in by Union in its EB-2005-0551 March 20, 2006 Evidence, Tab 5, Page 2 of 3, Lines 19-21.

1 2	Q15.	Does the capacity bidding method used by Union reflect competitive, market- based pricing?
3	A15.	No. The allocation mechanism used by Union represents a strong form of monopoly
4		pricing because it incorporates first-degree, or nearly "perfect", price discrimination
5		on a long-term basis.
6	Q16.	What is "first-degree" price discrimination?
7	A16.	First-degree, or "perfect", price discrimination occurs when the seller is able to
8		charge each customer a price that very nearly reflects the total value that the
9		customer places on the product. In other words, the seller captures nearly all of the
10		consumer's surplus of value by charging a price that is so high that the consumer
11		receives the smallest possible net benefit from the transaction. Perfect price
12		discrimination of this sort generally deprives customers of most of the benefits they
13		should enjoy in either a competitive or a regulated market and provides consumers
14		with no protection from the exercise of monopoly power.
15 16	Q17.	How does this concept of price discrimination relate to the bid premium mechanism used by Union?
17	A17.	The bidding and price-setting mechanism under consideration in this proceeding is
18		very different from competitive market-based pricing because each successful bidder
19		is required to continue paying the rate that it bids long after the abatement of any
20		temporary capacity shortage that might have existed, or might have been feared, at
21		the time of the open season. Each customer therefore could pay a different rate for
22		long-term capacity that allows the pipeline to extract the maximum possible value

- from each customer. This approach represents a classic form of monopoly price
 discrimination.
- 3

4 Competitive markets tend to protect consumers from this type of discrimination by 5 providing prices in the long run that are related more closely to the cost of production than to the value of the product. When shortages develop in a highly-6 7 competitive market, the demand side of the market is characterized by customers who attempt to outbid each other by offering to pay higher prices; and the supply 8 9 side of the market consists of a group of producers who compete against each other 10 by racing to be the first to expand production capacity and by offering to sell greater output at lower prices than their competitors. 11

12

With a high level of competition on both sides of the market, temporarily high rates 13 will tend to be driven back down to the cost of production as capacity is expanded to 14 15 meet demand. As a result, in the long run customers who place the highest value on the capacity do not necessarily pay a rate that reflects the full value that they place 16 on the capacity. Instead, the customers that place the highest value on the product in 17 18 a competitive market will pay a market-based rate in the long run that reflects both the cost of production and the value of capacity to the marginal customer when 19 supply and demand are in equilibrium. 20

1 2	Q18.	Are you aware of any economic justification for the price discrimination that can occur with bid premiums for long-term firm service?
3	A18.	No. There is no obvious economic justification for favoring one customer over
4		another in the long run. For example, there is no obvious economic reason to
5		prefer existing gas-fired electric generators over new gas-fired electric generators.
6		Equal regulatory protections in the upstream gas pipeline rates, without
7		discrimination, should be available to all customers, regardless of whether at the
8		time that they submitted their bid they believed that the pipeline might not expand
9		to serve all customers willing to pay the regulated rate. Based on these
10		considerations, Union's use of long-term bid premiums to deal with short-term
11		imbalances between capacity and demand could perpetuate long-term price
12		discrimination for which there is no apparent justification.
13 14 15	Q19.	Based on the considerations discussed in sections 3 and 4 would it be efficient for Union to continue using bid premiums in long-term firm contracts to allocate access to expansion capacity?
16	A19.	No. These considerations are all possible indicators of an exercise of unconstrained
17		market power. In the absence of evidence that Union lacks market power, it should
18		be presumed that Union has the ability to generate excess bid premiums by
19		potentially undersizing, or by creating the impression that it may undersize, capacity
20		expansions.

1 5. Industry Practices for Allocating New Capacity

2 3	Q20.	Do other regulated natural gas pipelines use rate premiums to allocate access to capacity?
4	A20.	I am not aware of any other regulated gas pipeline in North America that uses this
5		method to allocate long-term access to new capacity. The U.S. Federal Energy
6		Regulatory Commission ("FERC") requires U.S. interstate natural gas pipelines to
7		maintain provisions in their tariffs that specify precisely how capacity is to be
8		allocated when bids in an open season exceed the amount of capacity that feasibly
9		can be added at that time. Although FERC gives pipelines some flexibility in
10		designing capacity allocation methods, pipelines generally are prohibited from
11		using rates that exceed the maximum regulated rate stated in the tariff. U.S.
12		pipelines are also required to provide significant amounts of information
13		concerning the physical constraints and market conditions that might potentially
14		affect the amount of capacity that is available in an open season.
15 16	Q21.	Are federally-regulated U.S. pipelines allowed to charge rates in excess of the regulated tariff rate?
17	A21.	Under the FERC's Alternative Rates policy there are certain highly-limited
18		circumstances in which pipelines may charge rates in excess of the stated tariff
19		rate. For example, the FERC allows pipelines and customers to negotiate
20		contracts that may have rates that are higher than the regulated rate, as long as the
21		customer has the option of taking service at the regulated recourse rate rather than

1	the negotiated rate. ³ However, for purposes of evaluating bids and awarding
2	scarce capacity the levels of any negotiated rates are ignored, and all bids are
3	evaluated with the assumption that the bidder will pay the regulated recourse
4	rate. ⁴ Thus, FERC regulation generally prohibits pipelines from conducting open
5	seasons that might allocate access to expansion capacity using any mechanism
6	that resembles bid premiums.
7	
8	A second Alternative Rate policy addressed by the FERC concerns the possibility
9	of allowing pipelines to charge market-based rates that are somewhat analogous
10	to Union's use of bid premiums. Pipelines are allowed to charge rates that exceed
11	the maximum regulated recourse rate if they can demonstrate that there are
12	sufficient competitive alternatives available to customers to establish that the
13	pipeline lacks market power. The FERC described this policy as follows:
14	The Commission's framework for evaluating requests for market-
15	based rates addresses two principal purposes: (1) whether the
16	applicant can withhold or restrict services and, as a result,
17	increase price by a significant amount for a significant period of
18	time, and (2) whether the applicant can discriminate unduly in
19	price or terms and conditions. ⁵
20	

³ Alternatives to Traditional Cost-of-Service Ratemaking for Natural Gas Pipelines Regulation of Negotiated Transportation Services of Natural Gas Pipelines, 74 FERC ¶ 61,076 (1996) Docket No. RM95-6-000, RM96-7-000.

⁴ Only guaranteed rate revenues are considered in the allocation. Thus, when rates include a variable charge for recovering fixed costs, only variable charge revenues that are guaranteed will be considered for capacity allocation purposes. ⁵ Id. at 61,230.

	FERC also observed that:
	To date, in all cases where the Commission has considered market-based rates, the applicant has been required to show that it lacks significant market power in the relevant markets. ⁶
	In this proceeding, the OEB might be similarly concerned that pipelines under its
	jurisdiction can use a bid premium mechanism to "withhold or restrict services
	and, as a result, increase price [in long-term contracts] by a significant amount for
	a significant period of time." The OEB might also be concerned about the
	possibility that long-term bid premiums in open seasons could be a form of undue
	price discrimination.
Q22.	Has FERC described its reasons for prohibiting rate premiums in bidding for capacity?
A22.	Yes. The FERC described some of the reasons for this policy in its Alternative
	Rates Policy Statement as follows:
	A question arises when capacity is constrained. The predicate for permitting a pipeline to charge a negotiated rate is that capacity is available at the recourse rate. For purposes of allocating capacity, shippers willing to pay more than the maximum recourse rate would be considered to have paid the maximum recourse rate. Therefore, a shipper willing to pay only the recourse rate cannot lose access to capacity merely because someone else is willing to pay a negotiated rate. When there are more requests for capacity than there is capacity available, then the pipeline must allocate capacity among those shippers willing to pay either the negotiated rate or the maximum recourse rate, for example on a pro rata basis if required by its tariff. ⁷
	Q22. A22.

⁶ Id. at 61,230-61,231. ⁷ Id. at 61,241, emphasis added.

1		In Order No. 637-A, the FERC further elaborated on its reasons for prohibiting
2		rates in excess of the regulated rate for long-term contracts:
3		The price ceiling in the long-term market serves to protect automars by radiating the pipeling's ability to avarias market
4		nower either by withholding canacity to raise price or by price
6		discriminating and, as a consequence, creates the incentive for
7		pipelines to add capacity when demand increases. The pipelines
8		have an incentive to increase capacity, because adding capacity is
9		the only way the pipeline can increase long-term revenue. ⁸
10	6. <u>Co</u>	onclusion
11 12	Q23.	What are your conclusions concerning the use of bid premiums to allocate long-term capacity?
13	A23.	In recent open seasons Union has provided potential expansion customers an
14		opportunity to pay a premium over the cost-based regulated rate in order to
15		improve their chances of being awarded capacity in the open season. These bid
16		premiums are used to allocate expansion capacity if an open season is
17		oversubscribed, or to simply charge a higher rate for customers who bid a
18		premium when it may later be determined that there is no need to allocate
19		expansion capacity. Bid premiums that would be paid throughout the life of a
20		long-term contract are not designed for dealing efficiently with short-term
21		capacity shortages. Instead, this mechanism more closely resembles the type of
22		pricing associated with an unregulated exercise of market power. The long-term
23		price discrimination that can result from Union's bid premium approach may
24		provide incentives to maintain capacity shortages and it may encourage inefficient

⁸ Regulation of Short-Term Natural Gas Transportation Services, and Regulation of Interstate Natural Gas Transportation Services, Order No. 637-A, May 19, 2000, Docket No. RM98-10-001, REG-PREAMBLE, FERC SR ¶31,099 at 31,554.

1	decisions in those competitive markets that are affected by the long-term bid
2	premium mechanism. In the long run, the most efficient response to shortages of
3	long-term capacity is to construct capacity adequate to serve the long-term needs
4	of the market whenever practicable. For these reasons, it appears that Union's use
5	of bid premiums is not an appropriate method for allocating expansion capacity in
6	an open season.

7 Q24. Does this conclude your written evidence?

8 A24. Yes.

ATTACHMENT A

<u>Curriculum Vitae</u> <u>Of J. Stephen Gaske</u>

NGEIR Generic Proceeding EB-2005-0551 Appendix III-A

J. STEPHEN GASKE

Zinder Companies, Inc. 7514 Wisconsin Avenue Bethesda, MD 20814

CAREER SUMMARY

Consumns.	
1988-Present	Zinder Companies, Inc., President/Senior Vice-President/Consultant
1982-1988	Independent Consulting on Public Utility issues
1980-1981	Olson & Company, Inc., Public Utility Consultant
1977-1980	H. Zinder & Assocs., Research Assistant and Supervisor of Regulatory Research
Αςαλομις/Τραςμιμα.	
Academic/Teaching: 1986-1988	Trinity University, Assistant Professor of Finance
Academic/Teaching: 1986-1988 1982-1986	Trinity University, Assistant Professor of Finance Indiana University School of Business, Associate Instructor of Public Utilities and Transportation

EDUCATION

Indiana University School of Business	Ph.D. • 1987	
Concentrations: Major - Public Utilities; Minor - Finance; Methodology - Economics		
Dissertation: Two-Part Tariffs, Welfare, and the Cost of Capital to the Regulated Firm		
George Washington University	M.B.A. • 1977	
Major Concentration: Finance and Investments		
University of Virginia	B.A. • 1975	
PROFESSIONAL ASSOCIATIONS		

American Economic Association American Finance Association American Gas Association Rate Committee (1989-2001) Financial Management Association

PROFESSIONAL EXPERIENCE

Testimony and Litigation Support

Dr. Gaske has testified or filed testimony or affidavits in approximately 60 regulatory proceedings on the following topics:

Commission	Topic
Alaska Regulatory Commission	Oil Pipeline Rate of Return/Rate Base
Alberta Energy and Utilities Board	Gas Pipeline Cost Allocation/Rate Design
U.S. Economic Regulatory Administration	Gas Distribution Rate Design
U. S. Federal Energy Regulatory Commission	Gas Pipeline Cost Allocation and Rate Design; Rate of Return and Capital Structure; Competition; Revenue Requirements; Oil Pipeline Rate of Return
Iowa UB	Electric Avoided Costs/Externalities
Maine PUC	Electric Rate Design/Demand Management
CRE de México	Gas Pipeline Rate of Return
Montana PSC	Gas Distribution/Electric Rate of Return; Electric Cost Allocation and Rate Design
Minnesota PUC	Gas Distribution Rate of Return
New York PSC	Gas Pipeline Capital Structure
North Dakota PSC	Electric/Gas Distribution Rate of Return; Natural Gas Market Pricing; Electric Cost Allocation and Rate Design
U.S. Postal Rate Commission	Postal Pricing/Rate Design
South Dakota PUC	Gas Distribution Rate of Return
Texas PUC	Electric Cost Allocation and Rate Design
Wisconsin PSC	Electric Generation Economics
Wyoming PSC	Electric/Gas Distribution Rate of Return

Dr. Gaske has testified in property tax valuation proceedings before the Wyoming Board of Equalization and the Colorado Board of Assessment Appeals. He also has provided expert litigation support on cost of capital, cost allocation, rate design, cost of service, competition, market power and other economic and finance-related issues as part of numerous rate cases, antitrust and civil proceedings in which he did not testify.

Reports and Economic/Financial Analyses

Dr. Gaske has worked on many consulting projects in the area of utility economics, rates and regulation. Some of these projects have included:

- advisor to numerous U.S. and Canadian pipelines on rate design and/or competitive economics;
- rate and financial advisor during development stage for a new pipeline designed to carry Canadian gas to U.S. New England markets;
- an analysis of the applicability of various finance theories to telephone ratemaking by the U. S. Federal Communications Commission;
- a study of the economic structure, risks and cost of capital of the satellite telecommunications industry;
- development of computerized cost of service models for calculating both traditional and levelized rates for gas and oil pipelines, and rates for electric utilities;
- author of several issues of the H. Zinder & Associates Summary of Natural Gas Pipeline Rates;
- several studies of regional natural gas market competition, market power, pricing and capacity needs;
- an evaluation of Federal Energy Regulatory Commission policies designed to promote liquidity in the natural gas commodity markets;
- numerous studies of electric rate, regulatory and market issues such as canceled plant treatment, time-differentiated rates, non-utility generation, competitive bidding, and open-access transmission;
- author of the two most recent updates of the Edison Electric Institute Glossary of Electric Utility Terms;
- several studies of pricing, contract provisions, competitive bidding programs, and transmission practices for independent electric generation; and,
- several reports and projects on incentive regulation and the application of price cap regulation to both electric and natural gas companies.

Teaching/Speaking

Dr. Gaske has spoken on utility finance and economic issues before numerous professional groups. From 1983-1986, he served as Coordinator of the Edison Electric Institute Electric Rate Fundamentals Course. In addition, Dr. Gaske has taught college courses in Public Utility Economics, Transportation, Physical Distribution, Financial Management, Investments, Corporate Finance, and Corporate Financial Theory.