

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY
COMMISSION

v.

UGI PENN NATURAL GAS, INC.

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Docket Nos. A-2010-2213893
G-2010-2213894

Direct Testimony and Exhibits of

ROBERT D. KNECHT

On Behalf of the

Pennsylvania Office of Small Business Advocate

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PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

Topics:

Asset Valuation
Reasonableness of Proposed Affiliate Transaction

Date Served: February 18, 2011

Date Submitted for the Record: _____

OSBA Statement No. 1
3-16-2011

A.P.A.
Harrisburg, PA
Docket Nos.
A-2010-2213893
G-2010-2213894

DIRECT TESTIMONY OF ROBERT D. KNECHT

1 **Q. Please state your name and briefly describe your qualifications.**

2 A. My name is Robert D. Knecht. I am a Principal of Industrial Economics, Incorporated
3 (“IEC”), a consulting firm located at 2067 Massachusetts Avenue, Cambridge, MA
4 02140. As part of my consulting practice, I have prepared analyses and expert testimony
5 in the field of regulatory economics on a variety of topics. I obtained a B.S. degree in
6 Economics from the Massachusetts Institute of Technology in 1978, and an M.S. degree
7 in Management from the Sloan School of Management at M.I.T. in 1982, with
8 concentrations in applied economics and finance. I am appearing in these proceedings on
9 behalf of the Pennsylvania Office of Small Business Advocate (“OSBA”). My résumé
10 and a listing of expert testimony that I have filed in utility regulatory proceedings over
11 the past five years are attached in Exhibit IEC-1.

12 **Q. Please describe the purpose of your testimony.**

13 A. OSBA requested that I review the filing of UGI Penn Natural Gas, Inc. (“PNG”) with
14 respect to a proposed affiliated interest transaction between PNG and UGI Energy
15 Services, Inc. (“UGIES”), to determine whether the proposed transaction is consistent
16 with sound regulatory principles and is equitable to PNG’s ratepayers.

17 **Q. Please summarize the proposed transaction.**

18 A. PNG currently owns and operates a 9.0 mile 12-inch steel lateral (“Auburn Line”) which
19 extends from the Tennessee Gas Pipeline in Auburn, Pennsylvania southward to a paper
20 producing facility owned by Procter & Gamble Paper Products Company (“P&G”) near
21 Mehoopany, Pennsylvania. With the Auburn Line, PNG provides gas distribution service
22 to P&G, 13 residential customers, and one commercial customer.¹ PNG also provides
23 natural gas supply service to all of the smaller retail customers, while P&G procures its
24 natural gas from alternative suppliers. Natural gas generally flows southward on this
25 lateral from the interstate pipeline to PNG’s customers. In 2010, PNG interconnected the
26 Auburn Line with gas gathering facilities owned by PVR Marcellus Gathering, LLC

¹ See OSBA-I-7. All referenced interrogatory responses are attached to this testimony in Exhibit IEC-2.

1 (“PVR”), just north of P&G’s facility, through which gas produced by Citrus Energy
2 Corporation (“Citrus”) may be received. Citrus desires to expand its local production
3 from the Marcellus Shale formation, and to use the Auburn Line to transport the gas to
4 the Tennessee pipeline. The salient features of the proposed transaction are:

- 5 • PNG will sell the Auburn Line to UGIES at the net book value of the assets
6 of approximately \$240,000.²
- 7 • PNG will transfer the PVR interconnection facilities, as well as PNG’s
8 interest in the interconnection agreement with PVR, to UGIES, apparently
9 without charge.
- 10 • PNG will continue to retain the right and obligation to provide distribution
11 service to the gas consumers attached to the Auburn Line, including P&G.
12 UGIES will make gas available to PNG’s distribution customers on the
13 Auburn Line on a “first call” basis, including, as necessary, gas supplies
14 from the Tennessee pipeline in the event of a local supply disruption. PNG
15 will pay UGIES \$5,000 per month for various costs incurred by UGIES
16 related to its operation of the line for gas distribution purposes.
- 17 • UGIES intends to make certain investments in the Auburn Line, at an
18 estimated cost of \$15 million, to accommodate a reversal of the gas flow
19 direction on the line, and to establish a second interconnection with the
20 Tennessee interstate pipeline to meet the pressurization requirements of the
21 pipeline. The estimated northerly flow on the Auburn Line will be 120,000
22 Dth per day, with annual volumes nearly five times that needed to supply the
23 current customers.³

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25

² See OSBA-I-1.

³ See PNG Exhibit RFB-1, page 5, footnote 3.

1 **Q. Do you have any concerns about the proposed transaction?**

2 A. I do. The assets that PNG proposes to divest have economic value to the natural gas
3 producers (e.g., Citrus) who will use these assets to transport gas from the wellhead to the
4 interstate pipeline system. The operator of these assets will have the ability to extract at
5 least some of that value through charges to the producers. Based upon the advice of
6 OSBA counsel, I understand that because ratepayers have been paying for these assets
7 through depreciation, return and tax charges in base rates, they are entitled to a
8 reasonable share of the economic value associated with these facilities. At this writing,
9 PNG has made little effort to evaluate the economic value of these facilities. I further
10 understand from OSBA counsel that PNG bears the burden of proof for demonstrating
11 that the economic value of these facilities is reasonably and equitably distributed. Until
12 such time as PNG can demonstrate that the sharing of economic value between PNG's
13 ratepayers and PNG's affiliate in the proposed transaction is reasonable, I recommend
14 that the transaction be rejected. I believe that it is particularly important that this
15 transaction be carefully scrutinized, because (a) it involves an affiliate of PNG rather than
16 a third party dealing at arms-length, and (b) it may very well set a precedent for similar
17 transactions at PNG and other Pennsylvania regulated natural gas distribution companies
18 ("NGDCs").

19 **Q. Will the transaction have a positive impact on PNG ratepayers?**

20 A. Relative to the status quo, and all other factors being equal, PNG reports that ratepayers
21 will experience a modest benefit associated with the transaction. Specifically, PNG
22 estimates that it will avoid some \$154,000 per year in base rates costs related to the
23 transferred facilities, and will incur \$60,000 per year in payments to UGIES, for a net
24 gain of \$94,000 per year.

25 However, this calculation may be misleading for two reasons. First, all other factors are
26 likely not equal. As discussed further below, the proposed transaction may result in a
27 reduction in distribution revenues that PNG will earn from P&G, and may actually
28 increase the possibility that P&G will bypass PNG entirely.

1 Second, and more importantly, the impact on ratepayers should not be measured relative
2 to the status quo. Rather, the reasonableness of the proposed transaction should be
3 evaluated relative to alternative scenarios in which PNG attempts to obtain the market
4 value of the assets from the counterparty to the transaction.

5 **Q. What is the economic or market value of the Auburn Line as part of a gas gathering**
6 **system?**

7 A. Two factors determine the value of these assets. The first is the difference between the
8 net present value of the gas at the wellhead and the net present value of the gas delivered
9 into the interstate pipeline. Because the potential for gas production exceeds the local
10 consumption, the value of the gas at the wellhead is essentially the cost of producing the
11 gas. The value of the gas at the interstate pipeline is the market price of gas in northeast
12 Pennsylvania. Net present values would be calculated over the life of the producing
13 region or the life of the assets, whichever is shorter. From this difference in net present
14 values, the cost of upgrading the asset to accommodate the changes in gas flow would be
15 deducted.

16 This valuation approach represents an upper bound to the value of the assets for two
17 reasons. First, a transporter could not extract the full value associated with the price
18 differential, because there would be little interest on the part of gas producers in such an
19 arrangement. Second, the market valuation as measured by net present values will
20 overstate the economic value of the Auburn facilities if other alternatives for getting the
21 gas to market are available. That is, if the local producers can interconnect to the
22 interstate pipeline system with a separate gathering line, the value of the Auburn Line
23 (inclusive of required capital upgrades) can be no more than the full cost of constructing
24 and operating such an alternative gas gathering system.

25 **Q. Has PNG presented any evidence regarding the market value of the Auburn**
26 **facilities with respect to the difference between the value of the gas in the pipeline**
27 **and the value of the gas at the wellhead?**

28 A. No, it has not.

1 **Q. Has PNG presented any evidence regarding the cost that Citrus would incur to**
2 **develop an alternative gas gathering system to deliver gas to the interstate pipeline?**

3 A. In OSBA-I-11, PNG reports that it has no estimate of the cost Citrus would incur to do
4 so. In OSBA-I-2, PNG reports that the replacement cost for the Auburn Line would be
5 \$10.5 million, and that the likely cost to develop an alternative line for gathering services
6 would be of “significantly higher cost.” In contrast, PNG proposes to sell the assets to an
7 affiliate for \$240,000, with the recognition that the affiliate may need to invest some \$15
8 million to reconfigure the assets as a gathering line.

9 **Q. Does PNG believe that the proposed transaction price is consistent with a market**
10 **valuation?**

11 A. Yes, it does. In response to OSBA-I-8, PNG indicates that it “. . . believes that
12 transferring the line for this value represents a reasonable surrogate of the market value of
13 the currently configured Auburn Line.” Unfortunately, PNG offers no quantitative
14 evidence to support this assertion, as it has no way of measuring the market value.⁴
15 Moreover, PNG also has no information related to the potential increased profitability of
16 UGIES that would result from this transaction, as PNG has no information about the rates
17 that UGIES intends to charge Citrus or other customers.⁵

18 **Q. Is there an alternative to valuing the Auburn Line through the calculations that you**
19 **describe above?**

20 A. I believe that there is. Rather than administratively calculate the value of this transaction,
21 PNG could put the contract out for bid. That is, PNG could solicit offers from qualified
22 natural gas gathering companies for the amount that each would be willing to pay for the
23 assets identified in the transaction with UGIES. The terms of this procurement could also
24 require that a purchaser be obligated to enter into the Operating and Emergency Services
25 Agreement contemplated by PNG and UGIES in this proceeding. In that way, a market
26 value for the assets could be determined. As PNG notes in its response to OSBA-I-11,

⁴ In assessing the value of the transaction in that response, PNG includes the value to PNG associated with retaining its customers currently served on the line. I address this issue below.

⁵ OSBA-I-9.

1 there are “. . . many third party gatherers that are doing business in the Marcellus Shale
2 area.” As such, I expect that there would be market interest in such a transaction.

3 **Q. Beginning at page 14 of his testimony, PNG witness Mr. Beard argues that this**
4 **transaction does not “lend itself” to a market valuation for several reasons. Mr.**
5 **Beard’s first reason is that this transaction is different from a sale transaction, in**
6 **that PNG retains the right to serve distribution customers on the Auburn Line,**
7 **including P&G. Do you agree that this reason precludes a market valuation?**

8 A. No, I do not. As I noted above, PNG could offer the same proposition to other gas
9 gathering entities, to value this specific transaction. Mr. Beard offers no reason why
10 UGIES would be the only gas gathering firm that would be willing to enter into this type
11 of transaction.

12 **Q. Mr. Beard also argues that the Auburn Line has no value as a gathering facility**
13 **without investment. Is this a reason why market valuation cannot be undertaken?**

14 A. No, it is not. As I indicated, the cost of the upgrade does reduce the market value of the
15 Auburn Line from what it would be if no investment were required. However, this
16 observation in no way implies that the Auburn Line has no value as a potential
17 component of a gas gathering system. Other gas gatherers would presumably be willing
18 to make an investment similar to that contemplated by UGIES. Moreover, the \$15
19 million estimated price tag for the necessary upgrades would amount only to pennies per
20 Dth in costs per unit of throughput, if the forecast flow of 120,000 Dth per day were
21 achieved. As such, the \$15 million should not be a bar to interest from UGIES’s
22 competitors.

23 **Q. Mr. Beard argues further that ratepayers other than P&G should not be entitled to**
24 **share in the economic value of the transaction, because they have not paid for either**
25 **the Auburn Line (which has been directly assigned to P&G in cost allocation**
26 **studies) or the PVR Interconnection (for which costs were incurred after PNG’s last**
27 **base rates proceeding). Is this a legitimate reason to avoid market valuation of this**
28 **transaction?**

1 A. I do not believe that it is. First, I note that my records generally agree with Mr. Beard
2 that approximately \$400,000 in mains costs, presumably related to the Auburn Line, have
3 been directly assigned to P&G in filed cost allocation studies, and P&G has contributed
4 revenues in excess of allocated costs in rate proceedings, since at least 1996. However,
5 PNG's other ratepayers almost certainly retain obligations to pay for the Auburn Line. I
6 am reasonably confident that PNG would not voluntarily withdraw the Auburn Line
7 assets from its rate base if P&G were to cease operations at its Mehoopany facility, or if
8 P&G were to bypass PNG.

9 In addition, as I discuss further below, it is possible that this transaction will serve to
10 increase P&G's ability to bypass PNG, by facilitating the development of gas wells both
11 on P&G's property and in the surrounding areas. As such, ratepayers other than P&G
12 may have a reasonable claim on some of the value of the assets for which they have this
13 cost responsibility.

14 Moreover, even if it were accepted that P&G has paid for this asset to date and that other
15 ratepayers have made no contribution, that argument does not explain why PNG's
16 affiliate UGIES should benefit from the market value of the transaction. At most, Mr.
17 Beard's observation would simply raise an issue as to the appropriate costing method for
18 the Auburn Line and its market sale value in PNG's next base rates case.

19 Finally, in regard to Mr. Beard's observation that ratepayers have not paid for the PVR
20 interconnection, it does not appear that PNG has withdrawn its right to assign the cost of
21 those assets to ratepayers if this transaction should be rejected by the Commission. As
22 such, it is likely that ratepayers should reasonably expect that they will be "on the hook"
23 for the cost of those facilities in the future if this or a similar transaction is not approved.
24 In fact, PNG has specifically included the cost of the PVR facilities in measuring the cost
25 of owning and operating the Auburn Line assets that would be avoided if the proposed
26 transaction is implemented, as shown in OSBA-I-16 (Revised). In that exhibit, PNG
27 reports depreciation costs for the interconnection assets at \$7,361.47 per year. Moreover,
28 PNG reports a cost of capital for the facilities of \$73,756.52 per year, which is far in
29 excess of the cost of capital that would apply to the Auburn Line by itself (as its net book

1 value is only approximately \$240,000). That implies that PNG has included the PVR
2 interconnection assets in its cost analysis. Thus, PNG explicitly assumes that, but for the
3 transaction, ratepayers will be obligated to pay for the PVR interconnection facilities.⁶
4 As such, ratepayers should reasonably have an economic claim on the value of those
5 facilities.

6 **Q. Finally, Mr. Beard argues that “. . . the current market value of the Auburn line is**
7 **likely not greater than the cost of building a gathering line that would enable Citrus**
8 **to deliver gas into Tennessee independent of the Auburn line.” Do you agree?**

9 A. For the reasons discussed above, I am in technical agreement with this particular
10 statement, but I disagree as to its relevance to the proposed transaction. Mr. Beard's
11 statement correctly establishes an upper limit on what a third party would be willing to
12 pay to enter into the transaction (after accounting for the additional upgrade costs
13 required), but it does not justify a transfer of the assets to a PNG affiliate at net book
14 value. Moreover, the cost of developing an alternative gathering system to serve Citrus
15 may involve greater costs and risks to a developer than reversing the flow on the Auburn
16 Line, as a result of construction timing, permits and other required regulatory approvals,
17 etc. The risks and costs associated with a new gathering system underscore the potential
18 market value of the existing line.

19 **Q. Mr. Beard goes on to argue that the cost incurred by Citrus to build an alternative**
20 **gathering system would be less than the value to PNG associated with retaining the**
21 **right to serve P&G and other customers on the Auburn Line. Do you agree?**

22 A. As I discussed earlier, PNG's ability to retain P&G as a customer is not limited to this
23 particular transaction. PNG could also impose this condition as a requirement on a
24 market-based transaction. In that way, PNG could *both* retain P&G as a distribution
25 customer *and* obtain the market value of the facilities.

26 Moreover, Mr. Beard offers no analysis in support of his contention, particularly with
27 respect to the cost of an alternative gathering system for Citrus. In OSBA-I-11, the
28 OSBA requested that PNG provide any information that it had with respect to the cost of

⁶ As this is not a base rates proceeding, it is not yet clear how PNG would allocate the costs of the PVR interconnection facilities in a cost allocation study, if these costs were to remain in PNG's rate base.

1 such alternative gathering systems. In response to that request, PNG indicated, “PNG has
2 no information concerning the costs associated with those options.” I am therefore a little
3 surprised that Mr. Beard’s testimony refers to PNG’s estimates of such costs, which
4 apparently were not available when PNG provided its response to OSBA-I-11. To the
5 extent that PNG has such information, it has not presented any analysis which supports
6 Mr. Beard’s contention.

7 **Q. In response to OSBA-I-8, PNG argues that there is significant value in this**
8 **transaction associated with PNG retaining the ability to provide service to P&G,**
9 **which has been providing PNG with more than \$800,000 per year in distribution**
10 **revenues. Do you agree that this provides value to the transaction?**

11 A. At this writing, I do not. First, compared to the status quo, PNG’s ratepayers will gain no
12 value, because P&G is currently a PNG distribution customer, and it will be a distribution
13 customer if the transaction goes through. Second, P&G is not a party to the transaction,
14 and has made no commitments of which I am aware with respect to continuing to take
15 distribution service from PNG. Thus, this transaction does not appear to restrict P&G’s
16 ability to bypass PNG. Third, this transaction may very well increase P&G’s ability to
17 bypass PNG. To the extent that this transaction increases the economic attractiveness of
18 developing local gas supplies, including supplies from P&G’s property, P&G’s ability to
19 bypass PNG in favor of locally-produced supplies will be increased.⁷ Finally, if the
20 transaction is approved, the only costs PNG will be incurring to provide service to P&G
21 will be those associated with this agreement, namely the \$60,000 per year in fees paid to
22 UGIES. This implies that there will be no mains rate base costs being assigned to P&G
23 in PNG’s next cost of service study, which implies further that the overall level of costs
24 assigned to P&G may drop substantially in P&G’s next base rates proceeding. P&G will
25 presumably then argue for a rate reduction, based on its allocated cost of service,

⁷ PNG’s petition (at paragraph 27) indicates that PNG is a distribution customer subject to a “long-term transportation agreement.” At this writing, I do not know the duration of this long-term agreement, although Section 9 of PNG’s sales tariff for P&G specifies a two-year term, and Rate XD specifies a minimum term of three years for transportation customers. However, I have no reason to believe that the duration of this agreement is any different under the proposed transaction than it would be under the status quo. In addition, PNG’s response to OTS-11 indicates that “. . . the continued revenue from Procter & Gamble *eliminates* substantial bypass potential that has been the source of business risk for PNG historically.” (emphasis added) At this writing, I am not aware of the basis for the elimination of this risk.

1 consistent with the rate principles established by the Pennsylvania Commonwealth
2 Court.⁸ Thus, there is a significant possibility that P&G's distribution rates will decline if
3 the proposed transaction is approved.

4 I therefore see no reason to conclude that this transaction will improve PNG's ability to
5 obtain distribution revenues from P&G. In fact, it would appear that the transaction may
6 actually reduce the potential for continued distribution revenues from P&G. It is
7 therefore not surprising that P&G supports the proposed transaction.

8 **Q. As a public interest benefit of the proposed transaction, PNG also argues that it will**
9 **increase the economic viability of the P&G paper facility. Do you agree?**

10 A. Two separate issues are involved in this question. The first is the question as to whether
11 this particular transaction will benefit P&G more than an arms-length market transaction
12 with a non-affiliated entity. With respect to this issue, I see no reason why this particular
13 transaction would be any more beneficial to P&G than a similar agreement with a
14 competitor of UGIES. P&G's ability to use locally-supplied gas, to develop its own gas
15 fields, to potentially bypass PNG, and to reduce costs allocated to it in PNG's cost of
16 service study would be similar in either scenario. As such, benefits to P&G do not justify
17 approving this transaction in comparison to a market transaction.

18 The second question involves whether any such transaction will reduce gas costs that
19 PNG incurs. As to the net benefit to the economic viability of P&G, I generally agree
20 that any such transaction will improve P&G's ability to reduce its distribution rates (as I
21 discussed above). While this will benefit P&G, it will come at the expense of other PNG
22 ratepayers.

23 Whether such a transaction will reduce the commodity cost of gas paid by P&G hinges
24 on what the alternative gas supply source would be "but for" the transaction.

⁸ *Lloyd v. Pennsylvania Public Utility Commission*, 904 A.2d 1010, 1020 (Pa. Cmwlth. 2006).

1 To the extent that this type of a transaction spurs the development of gas fields that would
2 not otherwise be developed, and that P&G would otherwise rely on interstate pipeline gas
3 for supply, P&G will likely benefit from this type of transaction.

4 On the other hand, consider the situation in which the “but for” scenario is one in which
5 P&G relies on locally produced gas that does not have an outlet to the interstate pipeline
6 system. Under those conditions, the cost of the gas that the P&G facility would incur is
7 likely to be based on the local producer’s cost of production. By allowing the gas to get
8 to the interstate pipeline system, the opportunity cost of the gas to P&G is higher than it
9 would be if the gas had no market outlet. Under those conditions, P&G could actually
10 face higher gas costs with the transaction than it would if no transaction were approved
11 and no alternative interconnection to the pipeline system were to take place.

12 **Q. PNG also cites system reliability as a public benefit of the proposed transaction. Is**
13 **this a material benefit?**

14 A. It does not appear to be. PNG reports that it has had no involuntary service interruptions
15 on the Auburn Line in the past 10 years.⁹

16 **Q. PNG cites a variety of public interest benefits associated with the development of**
17 **Marcellus Shale gas. Do you disagree with PNG in this respect?**

18 A. No, I do not. However, I note that a market-based transaction related to the sale of the
19 Auburn Line would have the same public interest benefits as the affiliate transaction
20 proposed by PNG in this proceeding.

21 **Q. Based on the foregoing, what is your recommendation to the Commission?**

22 A. A sale of the Auburn Line to a gas gathering entity would appear to offer potential public
23 interest benefits, by providing a lower-cost option for getting local Marcellus Shale gas to
24 market than could be achieved through the development of new gathering systems.
25 Moreover, some features of the proposed transaction, notably those in which PNG retains
26 the rights and obligations to serve customers attached to the Auburn Line as distribution
27 customers, have merit. However, PNG has not offered a credible reason why the value of

⁹ OSBA-I-13.

1 these assets, subject to the same conditions this proposed transaction would impose on
2 UGIES, cannot or should not be valued by using a market-based solicitation. I therefore
3 recommend that the Commission reject the proposed affiliate transaction, unless and until
4 PNG makes a more serious effort to assess the market value of the transaction in an arms-
5 length transaction.

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

7 **A. Yes, it does.**

EXHIBIT IEc-1

RÉSUMÉ AND EXPERT TESTIMONY LIST

FOR

ROBERT D. KNECHT



INDUSTRIAL ECONOMICS, INCORPORATED

ROBERT D. KNECHT

Robert D. Knecht specializes in the practical application of economics, finance and management theory to issues facing public and private sector clients. Mr. Knecht has more than thirty years of consulting experience, focusing primarily on the energy, metals, and mining industries. He has consulted to industry, law firms, and government clients, both in the U.S. and internationally. He has participated in strategic and business planning studies, project evaluations, litigation and regulatory proceedings and policy analyses. His practice currently focuses primarily on utility regulation, and he has provided analysis and expert testimony in numerous U.S. and Canadian jurisdictions. Mr. Knecht also served as Treasurer of IEC from 1996 through 2010, and was responsible for the firm's accounting, finance and tax planning, as well as administration of the firm's retirement plans, during that period. Mr. Knecht's consulting assignments include the following projects:

- For the Pennsylvania Office of Small Business Advocate, Mr. Knecht provides analysis and expert testimony in industry restructuring, base rates and purchased energy cost proceedings involving electric, steam and natural gas distribution utilities. Mr. Knecht has analyzed the economics and financial issues of electric industry restructuring, stranded cost determination, fair rate of return, claimed utility expenses, cost allocation methods and rate design issues.
- For independent power producers and industrial customers in Alberta, Mr. Knecht has provided analysis and expert testimony in a variety of electric industry proceedings, including industry restructuring, cost unbundling, stranded cost recovery, transmission rate design, cost allocation and rate design.
- For industrial customers in Québec, Mr. Knecht has prepared economic analysis and expert testimony in regulatory proceedings regarding cost allocation, compliance with legislative requirements for cross-subsidization, and rate design.
- As a participant on various international teams of experts, Mr. Knecht has prepared the economic and financial analysis for industry restructuring studies involving the steel and iron ore industries in Venezuela, Poland, and Nigeria.
- For the U.S. Department of Justice and for several private sector clients, Mr. Knecht has prepared analyses of economic damages in a variety of litigation matters, including ERISA discrimination, breach of contract, fraudulent conveyance, natural resource damages and anti-trust cases.
- Mr. Knecht participates in numerous projects with colleagues at IEC preparing economic and environmental analyses associated with energy and utility industries for the U.S. Environmental Protection Agency.

Mr. Knecht holds a M.S. in Management from the Sloan School of Management at M.I.T., with concentrations in applied economics and finance. He also holds a B.S. in Economics from M.I.T. Prior to joining Industrial Economics as a principal in 1989, Mr. Knecht worked for seven years as an economic and management consultant at Marshall Bartlett, Incorporated. He also worked for two years as an economist in the Energy Group of Data Resources, Incorporated.

Industrial Economics, Incorporated
2067 Massachusetts Avenue
Cambridge, MA 02140 USA
617.354.0074 | 617.354.0463 fax
www.indecon.com

EXPERT TESTIMONY SUBMITTED IN REGULATORY PROCEEDINGS: 2005 TO 2010

DOCKET #	REGULATOR	UTILITY	DATE	CLIENT	TOPICS
NBEUB 2009-017	New Brunswick Energy & Utilities Board	Enbridge Gas New Brunswick	March 2010	New Brunswick Public Intervenor	Cost allocation, rate design
R-2009-2145441	Pennsylvania Public Utility Commission	T.W. Phillips Gas & Oil	March 2010	Pennsylvania Office of Small Business Advocate	Unaccounted-for gas and retainage rates
R-2010-2150861	Pennsylvania Public Utility Commission	National Fuel Gas Distribution	March 2010	Pennsylvania Office of Small Business Advocate	Gas costs
P-2009-2099333	Pennsylvania Public Utility Commission	Columbia Gas of Pennsylvania	February 2010	Pennsylvania Office of Small Business Advocate	Purchase of receivables program
R-3708-2009	Régie de l'Énergie, Québec	Hydro Québec Distribution	November 2009	AQCIE/CIFQ	Post-patrimonial generation cost allocation, revenue allocation
M-2009-2123944, 2123945, 2123948, 2123950, 2123951	Pennsylvania Public Utility Commission	PECO, Duquesne Light, Metropolitan Edison, Pennsylvania Electric, Penn Power, West Penn Power	October, November 2009	Pennsylvania Office of Small Business Advocate	Smart Meter Cost Allocation and Rate Design
NBEUB 2009-006	New Brunswick Energy & Utilities Board	Enbridge Gas New Brunswick	September 2009	New Brunswick Public Intervenor	Development Period Criteria
M-2009-2092222, 2121952, 2112956, 2093218, 2093217, 2093215	Pennsylvania Public Utility Commission	Metropolitan Edison, Pennsylvania Electric, Penn Power, West Penn Power, Duquesne Light, PPL Electric	August 2009	Pennsylvania Office of Small Business Advocate	Energy efficiency and conservation programs, cost allocation, rate design
1604944; ID# 184	Alberta Utilities Commission	ATCO Gas	July 2009	Rate 13 Group	Cost allocation, rate design
R-2009-2105904, 909, 911	Pennsylvania Public Utility Commission	UGI Penn Natural Gas, UGI Central Penn Gas, UGI Utilities Inc. Gas Division	July 2009	Pennsylvania Office of Small Business Advocate	Gas supply procurement hedging, unaccounted-for gas, revenue sharing mechanisms
R-2009-2093219	Pennsylvania Public Utility Commission	Columbia Gas of Pennsylvania	May 2009	Pennsylvania Office of Small Business Advocate	Revenue sharing mechanisms, retainage rate, gas procurement

EXPERT TESTIMONY SUBMITTED IN REGULATORY PROCEEDINGS: 2005 TO 2010

DOCKET #	REGULATOR	UTILITY	DATE	CLIENT	TOPICS
R-2008-2079660	Pennsylvania Public Utility Commission	UGI Penn Natural Gas	May 2009	Pennsylvania Office of Small Business Advocate	Equity cost of capital, cost allocation, rate design
R-2008-2079675	Pennsylvania Public Utility Commission	UGI Central Penn Gas	May 2009	Pennsylvania Office of Small Business Advocate	Equity cost of capital, cost allocation, rate design
R-2008-2075250	Pennsylvania Public Utility Commission	T.W. Phillips Gas & Oil	April 2009	Pennsylvania Office of Small Business Advocate	Retainage rates
R-2009-2088076	Pennsylvania Public Utility Commission	Philadelphia Gas Works	April 2009	Pennsylvania Office of Small Business Advocate	Gas procurement
R-2009-2083181	Pennsylvania Public Utility Commission	National Fuel Gas Distribution	March 2009	Pennsylvania Office of Small Business Advocate	Retainage rates, gas procurement
P-2008-2060309	Pennsylvania Public Utility Commission	PPL Electric Utilities	December 2008	Pennsylvania Office of Small Business Advocate	Default electric supply procurement
R-2008-2073938	Pennsylvania Public Utility Commission	Philadelphia Gas Works	December 2008	Pennsylvania Office of Small Business Advocate	Revenue requirement, financial cash flows, cost allocation, rate design.
P-2008-2044561	Pennsylvania Public Utility Commission	Pike County Light & Power	October 2008	Pennsylvania Office of Small Business Advocate	Electric default service procurement
R-3669-2008	Régie de l'Énergie, Québec	Hydro Québec TransÉnergie	October 2008	AQCIE/CIFQ	Transmission cost allocation.
R-3677-2008	Régie de l'Énergie, Québec	Hydro Québec Distribution	October 2008	AQCIE/CIFQ	Post-patrimonial supply cost allocation, revenue allocation, rate design.
R-3673-2008	Régie de l'Énergie, Québec	Hydro Québec Distribution	August 2008	AQCIE/CIFQ	Electric supply contract modifications.
1550487	Alberta Utilities Commission	ENMAX Power Corporation	July 2008	D410 Group	Formula-based (performance-based) ratemaking; ratepayer-supplied equity contributions.

EXPERT TESTIMONY SUBMITTED IN REGULATORY PROCEEDINGS: 2005 TO 2010

DOCKET #	REGULATOR	UTILITY	DATE	CLIENT	TOPICS
R-2008-2039417 et al.	Pennsylvania Public Utility Commission	UGI Utilities (Gas Division)	July 2008	Pennsylvania Office of Small Business Advocate	Design day demand forecast.
R-2008-2039284	Pennsylvania Public Utility Commission	UGI Penn Natural Gas	July 2008	Pennsylvania Office of Small Business Advocate	Revenue sharing, gas supply costs.
R-2008-2039634	Pennsylvania Public Utility Commission	PPL Gas Utilities	July 2008	Pennsylvania Office of Small Business Advocate	Lost and unaccounted-for gas, gas supply costs.
A-2008-2034045	Pennsylvania Public Utility Commission	UGI Utilities, PPL Gas Utilities	June 2008	Pennsylvania Office of Small Business Advocate	Public benefits of proposed sale.
R-2008-2011621	Pennsylvania Public Utility Commission	Columbia Gas of Pennsylvania	May 2008	Pennsylvania Office of Small Business Advocate	Cost allocation, revenue allocation, rate design.
R-2008-2028039	Pennsylvania Public Utility Commission	Columbia Gas of Pennsylvania	May 2008	Pennsylvania Office of Small Business Advocate	Gas supply cost functionalization; cost reconciliation method, sharing mechanisms.
R-3648-2007	Régie de l'Énergie, Québec	Hydro Québec Distribution	April 2008	AQCIE/CIFQ	Electric supply contract modifications.
R-2008-2021348	Pennsylvania Public Utility Commission	Philadelphia Gas Works	April 2008	Pennsylvania Office of Small Business Advocate	Sharing mechanisms, gas supply contracts.
R-2008-2012502	Pennsylvania Public Utility Commission	National Fuel Gas Distribution	March 2008	Pennsylvania Office of Small Business Advocate	Transportation and sales customer rate design, design day forecasts.
R-2008-2013026	Pennsylvania Public Utility Commission	T.W. Phillips Gas and Oil	March 2008	Pennsylvania Office of Small Business Advocate	Rate design treatment of capacity release revenues.
P-00072342	Pennsylvania Public Utility Commission	West Penn Power d/b/a Allegheny Power	February 2008	Pennsylvania Office of Small Business Advocate	Default service electricity procurement, rate design, reconciliation.
2007-004	New Brunswick Board of Commissioners of Public Utilities	New Brunswick Power Distribution and Customer Service Corporation	November 2007	New Brunswick Public Intervenor	Cost allocation, revenue allocation, rate design.

EXPERT TESTIMONY SUBMITTED IN REGULATORY PROCEEDINGS: 2005 TO 2010

DOCKET #	REGULATOR	UTILITY	DATE	CLIENT	TOPICS
R-3644-2007	Régie de l'Énergie, Québec	Hydro Québec Distribution	October 2007	AQCIE/CIFQ	Cost allocation, revenue allocation, rate design.
P-00072305	Pennsylvania Public Utility Commission	Pennsylvania Power Corporation	July 2007	Pennsylvania Office of Small Business Advocate	Default electric service procurement.
R-00072334	Pennsylvania Public Utility Commission	UGI Penn Natural Gas, Inc.	July 2007	Pennsylvania Office of Small Business Advocate	Asset management arrangement, gas procurement.
R-00072333	Pennsylvania Public Utility Commission	PPL Gas Utilities Corporation	July 2007	Pennsylvania Office of Small Business Advocate	Design day forecasting, gas procurement.
R-00072155	Pennsylvania Public Utility Commission	PPL Electric Utilities Corporation	July 2007	Pennsylvania Office of Small Business Advocate	Cost allocation, revenue allocation, rate design, energy efficiency.
R-00049255 (Remand)	Pennsylvania Public Utility Commission	PPL Electric Utilities Corporation	May 2007	Pennsylvania Office of Small Business Advocate	Revenue allocation.
R-00072175	Pennsylvania Public Utility Commission	Columbia Gas of Pennsylvania, Inc.	May 2007	Pennsylvania Office of Small Business Advocate	Gas procurement.
R-00072110	Pennsylvania Public Utility Commission	Philadelphia Gas Works	April 2007	Pennsylvania Office of Small Business Advocate	Gas procurement, margin sharing mechanisms.
R-00061931	Pennsylvania Public Utility Commission	Philadelphia Gas Works	April 2007	Pennsylvania Office of Small Business Advocate	Cost allocation, revenue allocation, retail gas competition.
P-00072245	Pennsylvania Public Utility Commission	Pike County Light & Power Company	March 2007	Pennsylvania Office of Small Business Advocate	Default service procurement, rate design.
R-00072043	Pennsylvania Public Utility Commission	National Fuel Gas Distribution Company	March 2007	Pennsylvania Office of Small Business Advocate	Design day requirements.
C-20065942	Pennsylvania Public Utility Commission	Pike County Light & Power Company	November 2006	Pennsylvania Office of Small Business Advocate	Wholesale power procurement by provider of last resort.
R-3610-2006	Régie de l'Énergie, Québec	Hydro Québec Distribution	November 2006	AQCIE/CIFQ	Post-patrimonial generation cost allocation; cross-subsidization; rate design.

EXPERT TESTIMONY SUBMITTED IN REGULATORY PROCEEDINGS: 2005 TO 2010

DOCKET #	REGULATOR	UTILITY	DATE	CLIENT	TOPICS
P-00052188	Pennsylvania Public Utility Commission	Pennsylvania Power Company	September 2006	Pennsylvania Office of Small Business Advocate	Affidavit: POLR rates, wholesale to retail.
R-00061493	Pennsylvania Public Utility Commission	National Fuel Gas Distribution Corporation	September 2006	Pennsylvania Office of Small Business Advocate	Rate of return, load forecasting, cost allocation, revenue allocation, rate design, revenue decoupling.
R-00061398	Pennsylvania Public Utility Commission	PPL Gas Utilities Corporation	August 2006	Pennsylvania Office of Small Business Advocate	Cost allocation, revenue allocation, rate design.
R-00061365	Pennsylvania Public Utility Commission	PG Energy/Southern Union Company	July 2006	Pennsylvania Office of Small Business Advocate	Merger savings, cost allocation, revenue allocation, rate design.
R-00061519	Pennsylvania Public Utility Commission	PPL Gas Utilities Corporation	July 2006	Pennsylvania Office of Small Business Advocate	Design day weather and throughput forecasts; gas supply hedging.
R-00061518	Pennsylvania Public Utility Commission	PG Energy/Southern Union Company	July 2006	Pennsylvania Office of Small Business Advocate	Design day weather and throughput forecasts; gas supply hedging.
A-125146	Pennsylvania Public Utility Commission	UGI Utilities, Inc., Southern Union Company	June 2006	Pennsylvania Office of Small Business Advocate	Public benefits of proposed sale of PG Energy to UGI; asset management agreement.
R-00061355	Pennsylvania Public Utility Commission	Columbia Gas of Pennsylvania	May 2006	Pennsylvania Office of Small Business Advocate	Gas supply and hedging plan; procedural issues
R-00061296	Pennsylvania Public Utility Commission	Philadelphia Gas Works	April 2006	Pennsylvania Office of Small Business Advocate	Gas procurement and procedural issues.
R-00061246	Pennsylvania Public Utility Commission	National Fuel Gas Distribution	March 2006	Pennsylvania Office of Small Business Advocate	Gas procurement; unaccounted for gas retention rates.
2005-002 Refiling	New Brunswick Board of Commissioners of Public Utilities	New Brunswick Power Distribution and Customer Service Company	February 2006	New Brunswick Public Intervenor	Cost allocation, rate design.
P-00052188	Pennsylvania Public Utility Commission	Pennsylvania Power Company	December 2005	Pennsylvania Office of Small Business Advocate	Cost allocation and rate design for POLR supplies.
R-3579-2005	Régie de l'Énergie, Québec	Hydro Québec Distribution	November 2005	AQCIE/CIFQ	Generation cost allocation; cross-subsidization; revenue allocation.
2005-002	New Brunswick Board of Commissioners of Public Utilities	New Brunswick Power Distribution and Customer Service Company	August 2005	New Brunswick Public Intervenor	Cost allocation, rate design.

EXPERT TESTIMONY SUBMITTED IN REGULATORY PROCEEDINGS: 2005 TO 2010

DOCKET #	REGULATOR	UTILITY	DATE	CLIENT	TOPICS
R-00050538	Pennsylvania Public Utility Commission	PG Energy	July 2005	Pennsylvania Office of Small Business Advocate	Gas procurement diversification.
R-00050540	Pennsylvania Public Utility Commission	PPL Gas Utilities Corporation	July 2005	Pennsylvania Office of Small Business Advocate	Gas procurement, hedging, retention rates, sharing mechanism.
R-00050340	Pennsylvania Public Utility Commission	Columbia Gas of Pennsylvania	May 2005	Pennsylvania Office of Small Business Advocate	Gas procurement, hedging and diversification.
R-3563-2005	Régie de l'Énergie, Québec	Hydro Québec Distribution	April 2005	AQCIE/CIFQ	Generation cost allocation; industrial demand response.
R-00050264	Pennsylvania Public Utility Commission	Philadelphia Gas Works	April 2005	Pennsylvania Office of Small Business Advocate	Gas procurement, risk hedging, financing costs in the gas cost rate.
R-00050216	Pennsylvania Public Utility Commission	National Fuel Gas Distribution	March 2005	Pennsylvania Office of Small Business Advocate	Gas supply procurement and forward pricing policies.
EB-2004-0542	Ontario Energy Board	Union Gas Limited	March 2005	Tribute Resources Inc.	Cost allocation and rate design for service to embedded storage pools.
R-00049884	Pennsylvania Public Utility Commission	Pike County Light and Power (Gas Service)	January 2005	Pennsylvania Office of Small Business Advocate	Fair rate of return, cost allocation, class revenue assignment.

March 2010

EXHIBIT IEc-2

REFERENCED INTERROGATORY RESPONSES

OSBA-I-2 (excluding confidential attachment)

OSBA-I-7

OSBA-I-8

OSBA-I-9

OSBA-I-11

OSBA-I-13

OSBA-I-16

OTS-11

Application of UGI Penn Natural Gas, Inc. :
for Expedited Review and Approval of the :
Transfer By Sale of a 9.0 Mile Natural Gas : Docket Nos. **A-2010-2213893**
Pipeline, Appurtenant Facilities and Right : **G-2010-2213894**
of Way located in Mehoopany, Pennsylvania :
and a Related Affiliated Interest Agreement :

**Responses of UGI Penn Natural Gas, Inc.
to Interrogatories Set I of the
Office of Small Business Advocate**

2. Please provide the replacement cost new for the Auburn line, with supporting workpapers and references.

Response: Please see attached Proprietary and Confidential estimate, which will be provided only to parties that execute an appropriate Protective Agreement. PNG estimates that the like-for-like replacement cost designed to deliver gas from Tennessee Gas Pipeline to the Auburn Line would be \$10,500,000. Note that the informational value of the replacement cost of the Auburn Line is low because a party wishing to bypass the UGI PNG distribution system likely will not replace the current line with a like-for-like facility when the distribution functionality can be replicated with 8-inch pipe at a significantly lower cost (\$6,000,000). If the line was being replaced to provide gathering services, the line would be constructed of much larger pipe (e.g., 24-inch) at a significantly higher cost. In any event, in order to utilize the pipeline for gathering services, significant capital expense is required to construct compression, etc.

Responsible Witness: Anthony Cox

Application of UGI Penn Natural Gas, Inc. :
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**Responses of UGI Penn Natural Gas, Inc.
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7. Reference Application at paragraph 10:

- a. Regarding the “retail customers” referenced in this paragraph, please identify the rate class under which each customer takes service and the approximate annual throughput for each customer.

PNG currently serves 14 customers with gas delivered from the Auburn Line excluding Procter & Gamble. Their rate class and approximate annual throughput is as follows:

<u>Customer</u>	<u>Rate</u>	<u>Vol (Mcf)</u>
	1 R	32.9
	2 R	124.5
	3 R	129.1
	4 R	54.2
	5 R	72.1
	6 R	176.1
	7 R	87.9
	8 R	157
	9 N	2049.4
	10 R	149.1
	11 R	61
	12 R	73.9
	13 R	66.4
	14 R	76.6

Responsible Witness: Anthony Cox

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**Responses of UGI Penn Natural Gas, Inc.
 to Interrogatories Set I of the
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8. Reference Application at paragraph 10:

- a. Please provide the rationale for transferring the asset at net book value.
- b. Please identify any Pennsylvania Public Utility Commission policies or precedents which support transfer at net book value.
- c. Has PNG contacted any other potential buyers for this pipeline in order to determine the competitive market value for this asset? Please explain any negative response fully. To the extent other potential purchasers have been contacted, please provide the details of those consultations.

Response:

a. This question includes an incorrect assumption related to the consideration being received by PNG through the Auburn Line transaction. Under this transaction, PNG is retaining the current market value of the line in the form of a continuing relationship with P&G to pay historic prices for service provided by PNG, and by retaining the distribution revenues from others. Thus, the consideration being received by PNG is not limited to the receipt of the Auburn Line net book value but also includes PNG's retention of the economic benefits of the presently configured Auburn Line: 1) the revenue stream from all customers served from the line; and 2) the contractual right to receive gas from the line at an annual cost that approximates the current annual cost of owning and operating the line. PNG believes that transferring the line for this value represents a reasonable surrogate of the market value of the currently configured Auburn Line.

b. Regarding the proposition for transferring utility assets at net book value, there is a long line of recent precedent involving the transfer of electric generation units and natural gas peaking facilities in connection with gas and electric industry restructuring proceedings. Nevertheless, as explained below, PNG is retaining the current economic value of the line in the form of continuing distribution revenues from P&G and others, to the benefit of PNG's other retail customers.

Legal precedent supports the transfer of the Auburn Line for the consideration identified in response to subpart a. above, which far exceeds the net book value of the line. With the retention

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of the present revenue stream, PNG's ratepayers will not bear the capital costs of the line but, for ratemaking purposes, will receive a revenue credit equal to the amount of the retained marginal revenue from customers located off the line. This amount exceeds \$8 million of present value using a 20-year stream of revenue and a 9 percent discount rate. That revenue stream accordingly provides a present value to PNG's customers equal to 32 times the net book value of the asset being transferred.

PNG recognizes that there is legal precedent that provides that utility customers are entitled to share in the gain on the sale of a depreciable public utility asset for which they have borne the capital costs in rates but not the value of non-depreciable property, i.e., land and rights of way. See, *Philadelphia Suburban Water Company v. Pennsylvania Public Utility Commission*, 427 A.2d 1244, 43 P.U.R. 4th 133 (1981 Pa. Commw.). PNG believes that the value it is retaining greatly exceeds the market value of the depreciable asset here, a 45 year-old 12-inch steel pipe that is currently configured to move gas from Tennessee to markets served directly from the pipe itself less the market value of the non-depreciable land being transferred. This is particularly true when customers other than P&G have borne only an insignificant amount of the costs of the Auburn Line over the course of its existence due to the fact that the costs of the Line were direct assigned to the customers that use the line on the basis of their demand characteristics (non-P&G customers comprise less than 0.1 percent of the demand on the line). The retention of one hundred percent of the Auburn Line revenue stream, for ratemaking purposes, therefore provides PNG's customers with reasonable compensation for its transfer.

Customers also should not be entitled to any portion of the market value for the gathering service that UGIES intends to provide. As the Auburn Line is currently configured to deliver gas from Tennessee, it has no value for local producers desiring to deliver gas into the interstate market. Only with a substantial additional investment of the sort contemplated by UGIES is the delivery of gathered local production gas into Tennessee made possible. The provision of gathering services to producers is highly competitive and carries no guarantee of a continuing revenue stream. PNG is not in the business of providing gathering services nor is it appropriate for it to do so.

c. PNG has not contacted any other potential buyers for this pipeline in order to determine the competitive market value for this asset. PNG believes that it is under no legal requirement to do so.

Responsible Witness: Robert Beard

Application of UGI Penn Natural Gas, Inc. :
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**Responses of UGI Penn Natural Gas, Inc.
to Interrogatories Set I of the
Office of Small Business Advocate**

9. Reference Application at paragraph 18:
- a. Please identify the estimated capital and related annual O&M costs associated with the upgrades to the Auburn line contemplated in this paragraph. Please provide supporting details and workpapers.
 - b. Please provide the tolling charge and forecast volumes that UGIES will impose on Citrus Energy Corporation for its use of the gathering line.
 - c. Please provide the tolling charge and forecast volumes that UGIES intends to impose on PVR Marcellus Gas Gathering LLC for its use of the gathering line.
 - d. Please identify any tolling charge that UGIES intends to impose on PNG related to providing distribution service to P&G and/or the other retail customers attached to the Auburn line.

Response:

- a, b, and c. PNG does not have any of the requested information in its possession.
- d. PNG will not incur any tolling charge for distribution service from UGIES on the Auburn Line.

Responsible Witness: Anthony Cox

Application of UGI Penn Natural Gas, Inc. :
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**Responses of UGI Penn Natural Gas, Inc.
to Interrogatories Set I of the
Office of Small Business Advocate**

11. Please identify other options available to Citrus Energy Corporation for getting its gas into the interstate pipeline system, and the costs associated with those options.

Response: PNG is not aware of the specific other options available to Citrus Energy for getting its gas into the interstate pipeline system, or the costs associated with those options. However, it is PNG's understanding that Citrus could build its own pipeline system to interconnect with Tennessee or contract with one of many third party gatherers that are doing business in the Marcellus Shale area. PNG has no information concerning the costs associated with those options.

Responsible Witness: Anthony Cox

Application of UGI Penn Natural Gas, Inc. :
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**Responses of UGI Penn Natural Gas, Inc.
to Interrogatories Set I of the
Office of Small Business Advocate**

13. Reference Application at paragraph 28:

- a. Please identify the number of involuntary service interruptions experienced by PNG's customers connected to the Auburn line over the past 10 years, by date, duration and magnitude of interruption.
- b. For each such interruption, please indicate whether the interruption was due to failures on the Auburn line, or on PNG distribution system assets which will remain with PNG if the application is approved.

Response:

- a. There were no involuntary interruptions during the past 10 years.
- b. Not applicable

Responsible Witness: Anthony Cox

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Application of UGI Penn Natural Gas, Inc.	:	
for Expedited Review and Approval of the	:	
Transfer By Sale of a 9.0 Mile Natural Gas	:	Docket Nos. A-2010-2213893
Pipeline, Appurtenant Facilities and Right	:	G-2010-2213894
of Way located in Mehoopany, Pennsylvania	:	
and a Related Affiliated Interest Agreement	:	

**Responses of UGI Penn Natural Gas, Inc.
to Interrogatories Set I of the
Office of Small Business Advocate
(CORRECTED)**

16. Reference Exhibit E, page 10:
- a. Please provide the complete basis for the \$5,000 monthly interconnection fee.
 - b. Please provide the annual costs avoided by PNG associated with the sale of the assets, with supporting calculations and workpapers.

Response:

- a. See Attachment OSBA-I-16 (CORRECTED).
- b. See Attachment OSBA-I-16 (CORRECTED).

Responsible Witness: Anthony Cox

Attachment OSBA I-16
(CORRECTED)

a. Please provide the complete basis for the \$5,000 monthly interconnection fee. The fee resulted from negotiations between PNG and UGIES. However, based on our assumptions of the costs which are listed below, UGI PNG believes the fee is reasonable.

<u>Category</u>	<u>TOTAL</u>
Gas Quality Inspection	\$ 6,100.00
Odorization	\$ 8,300.00
Valve Maintenance	\$ 1,000.00
Transmitter Calibration	\$ 1,000.00
PA One Call	\$ 3,800.00
ROW Clearing	\$ 6,000.00
Leak Survey	\$ 1,500.00
Cathodic Protection	\$ 2,500.00
Pipeline Integrity	\$ 6,300.00
SCADA Monitoring & Response	\$ 5,000.00
Station Inspections	\$ 6,000.00
Materials (odorant, RTU parts, transmitters, etc.)	<u>\$ 15,000.00</u>
Total	\$ 62,500.00

b. Please provide the annual costs avoided by PNG associated with the sale of the assets, with supporting calculations and workpapers.

The estimated costs avoided to own, operate and maintain the Auburn line are listed below.

<u>Category</u>	<u>Approximate Total Dollars</u>
Gas Quality Inspection	\$6,048.00
Odorant Maintenance	\$22,780.00
Valve Maintenance	\$1,008.00
Transmitter Calibration	\$1,008.00
Line Locating	\$3,780.00
Right of Way Clearing	\$6,000.00
Leak Survey	\$1,512.00
Corrosion Periodic Survey	\$504.00
Rectifier Reads	\$2,268.00
Transmission Pipeline Integrity	\$6,286.00
SCADA Monitoring & Response	\$5,040.00
Station Inspections	\$6,048.00
Depreciation Expense	
Line and appurtenant facilities	\$5,143.63
Interconnect	\$7,361.47
Auburn Heater Fuel	\$5,074.00
Estimated Cost of Capital	<u>\$73,756.52</u>
Total	\$153,617.61

**Responses of UGI Penn Natural Gas, Inc.
to Interrogatories of the
Office of Trial Staff**

OTS-11 Provide a schedule showing any and all benefits expected to accrue to any current retail customer of UGI PNG in the event the proposed ownership transfer is approved. For each such customer, also identify the time period when any such benefit will be realized.

Response:

See PNG Statement No. 1, Direct Testimony of Robert F. Beard, pages 11-18. The cost reductions identified by Mr. Beard will begin to accrue immediately after the transfer of ownership. Other benefits will begin to accrue with the first deliveries of natural gas into Tennessee through Auburn Station II. Of the benefits identified there, the continued revenue from Procter & Gamble eliminates substantial bypass potential that has been the source of business risk for PNG historically.

Responsible Witness: Robert F. Beard, Jr., P.E.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY
COMMISSION

v.

UGI PENN NATURAL GAS, INC.

Docket No. A-2010-2213893 et al.

Surrebuttal Testimony of
ROBERT D. KNECHT

On Behalf of the
Pennsylvania Office of Small Business Advocate

***** NON-PROPRIETARY VERSION *****

Topics:

Asset Valuation
Reasonableness of Proposed Affiliate Transaction

Date Served: March 11, 2011

Date Submitted for the Record: _____

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PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

OSBA Statement No. 2
NON-PROPRIETARY VERSION

3-16-2011

Harrisburg, PA

Docket Nos.

A-2010-2213893

G-2010-2213894

SURREBUTTAL TESTIMONY OF ROBERT D. KNECHT

1 **Q. Please state your name and briefly describe your qualifications.**

2 A. My name is Robert D. Knecht. I submitted direct testimony earlier in this proceeding,
3 and my qualifications were detailed in Exhibit IEC-1 attached to that testimony.

4 **Q. Please describe the purpose of your surrebuttal testimony.**

5 A. This surrebuttal testimony responds to the rebuttal testimony of Mr. Robert F Beard, Jr.
6 on behalf of UGI Penn Natural Gas, Inc. ("PNG" or "the Company"), with respect to a
7 proposed affiliated interest transaction between PNG and UGI Energy Services, Inc.
8 ("UGIES").

9 **Q. Does Mr. Beard offer any additional evidence or analysis in support of the proposed**
10 **transaction in his rebuttal testimony?**

11 A. He does. In support of its proposal, the Company relies significantly on the argument
12 that the proposed transaction would reduce the risk that the Procter & Gamble Paper
13 Products Company ("P&G") will bypass PNG distribution service and cause an increase
14 in revenues required from other PNG ratepayers. In the filing, PNG referred only
15 vaguely to a "long-term" commitment of P&G, without being specific as to either the
16 duration of the agreement or the magnitude of the rates that P&G would pay. I addressed
17 this agreement at page 9, footnote 7 of my direct testimony. When I prepared my direct
18 testimony, I was unaware of any specific agreement between PNG and P&G that was
19 contingent upon approval of the Company's proposal in this proceeding. As such, I
20 concluded that there was little value to ratepayers associated with any commitment from
21 P&G to continue to take distribution service from PNG.

22 In his rebuttal testimony, at page 2, Mr. Beard states that ". . . in anticipation of this
23 transaction, [P&G], PNG's largest customer, has entered into a 20-year agreement to
24 continue to take distribution service from PNG." Depending on the terms, this agreement
25 may improve the attractiveness of the proposed transaction to PNG's other ratepayers,
26 albeit by somewhat less than Mr. Beard asserts.

1 However, beyond this new evidence, Mr. Beard’s rebuttal to my direct testimony consists
2 of either repetitions of the Company’s original positions or inaccurate assertions
3 regarding my testimony.

4 **Q. How could a long-term agreement between PNG and P&G provide value to other**
5 **ratepayers?**

6 A. Under PNG’s existing tariff, P&G could potentially bypass PNG distribution service, and
7 either interconnect directly with an interstate pipeline or rely on directly-supplied local
8 natural gas supplies, with relatively little notice. If P&G were to choose to bypass PNG,
9 PNG would lose the distribution revenues from P&G. Of course, PNG might also
10 experience a net cost reduction, particularly if the Commission were to determine that the
11 rate base assets used to serve P&G are no longer “used and useful.” Nevertheless, a P&G
12 bypass could result in a transfer of cost responsibility to other ratepayers, relative to the
13 status quo.

14 It is therefore possible that the terms of the 20-year PNG-P&G agreement would result in
15 more revenues, or at least the probability of more revenues, to PNG than the existing
16 arrangements. (Of course, unless the agreement between PNG and P&G is contingent
17 upon the proposed affiliate transaction, the agreement is irrelevant to the impacts of the
18 proposed transaction.)

19 Evaluating the benefit of such an agreement to other ratepayers would not be a simple
20 calculation, however. It would require the development of two revenue-cost scenarios.
21 The first scenario would be the revenues and costs that PNG would incur under the
22 contract with P&G. This would of course depend significantly on the specific volume
23 and pricing terms of the contract, and would presumably include some assessment of a
24 P&G shutdown. The second scenario would be based on the assessment of revenues and
25 costs related to continuing the status quo. The evaluation would necessarily require an
26 assessment of the likely revenues that P&G would provide under the status quo, including
27 some assessment of the likelihood of P&G bypass. It would also necessarily require an
28 assessment of whether the costs associated with the facilities serving P&G would
29 continue to be allowable rate base costs.

1 The value of the transaction would then be determined by the difference between the net
2 revenues in the two scenarios.

3 **Q. Has PNG provided any such quantitative analysis?**

4 A. No. In fact, PNG has not provided any specific terms of the contract between P&G and
5 PNG, other than its length. Without that information, I am unable to make any
6 assessment of the value of this agreement. OSBA has requested that PNG provide this
7 information, but it is not available at this writing. Therefore, for purposes of this
8 testimony, I must assume that PNG has demonstrated value associated with this particular
9 contract.

10 **Q. If PNG were to present evidence as to the value to ratepayers associated with**
11 **“locking in” P&G for a 20-year term, would that resolve your concerns?**

12 A. Without any data or analysis, it is difficult to say. Even with a solid analysis of the
13 incremental value of the contract between P&G and PNG to ratepayers, the value of the
14 Auburn Line would remain unknown. However, if the net value of the P&G contract, as
15 measured using the approach I describe above, were to exceed an upper bound estimate
16 for the value of the Auburn Line based on replacement cost, my concerns would be
17 resolved. Unfortunately, because so little evidence has been adduced to date regarding
18 such a calculation, I do not believe the schedule for this proceeding can accommodate a
19 rigorous review of any such analysis. Moreover, I am advised by OSBA counsel that the
20 burden for demonstrating the net value associated with the transaction lies with PNG.

21 **Q. Let’s turn to Mr. Beard’s other comments, beyond the issue of the long-term P&G**
22 **contract. At page 4 of his rebuttal, Mr. Beard asserts that there is no “gain” to be**
23 **shared among ratepayers because the proposed sale price is at full value. Is he**
24 **correct?**

25 A. Mr. Beard is certainly correct that there is no gain in the *proposed* affiliate transaction,
26 because PNG and its affiliate UGIES did not establish a sale price in excess of book
27 value. The value in the proposed transaction is unfortunately indicative of nothing, other
28 than a number derived as part of an agreement between affiliated interests that is not an
29 arms-length, competitive transaction. The correct question, of course, is whether a third

1 party would establish a higher value of the Auburn Line in a competitive procurement.
2 However, Mr. Beard dismisses that question.

3 **Q. Mr. Beard goes on to argue that modifying the sale price would affect the economics**
4 **of the transaction for Citrus and P&G. Is this correct?**

5 A. To my knowledge, PNG has filed no agreements involving Citrus that are contingent
6 upon the affiliate transaction proposed in this proceeding. I therefore do not know the
7 answer to that question.

8 It is certainly possible that a higher sale price for the Auburn Line would result in UGIES
9 (or a third party) charging a higher fee to Citrus than under the proposed transaction.
10 However, PNG has already asserted that it has no knowledge of UGIES's proposed
11 pricing plan.¹ As such, Mr. Beard cannot know the impact of a change in the sale price
12 on Citrus and must therefore be speculating as to the impact of the transaction on Citrus.
13 It is also certainly possible that UGIES would set its charges to Citrus based on market
14 considerations, such as replacement or bypass costs, rather than on the basis of UGIES'
15 own acquisition costs. If so, the sale price might have no effect at all on Citrus'
16 economics.

17 In addition, it is also possible that PNG, UGIES, P&G and Citrus have all come to an
18 overall arrangement in which the economic value of the Auburn Line would be shared
19 among those four parties, leaving a minimal amount for other ratepayers. If, in fact, the
20 Commission concludes that ratepayers other than P&G have no claim on any value of the
21 Auburn Line in excess of its book value, there would presumably be no problem
22 associated with this overall transaction. However, for the reasons detailed in my direct
23 testimony, and based on the advice of OSBA counsel, PNG ratepayers may very well be
24 obligated to pay for the Auburn Line in the absence of the proposed affiliate transaction,
25 and therefore should reasonably share in any market value associated with that line. For
26 those reasons, I conclude that it would be inequitable for these four parties to share the
27 excess market value of the asset only among themselves.

¹ See OSBA-1-9, which was included in Exhibit IEc-1 in my direct testimony.

1 **Q. At page 5 to 6, Mr. Beard reiterates the Company's position that P&G is the only**
2 **ratepayer who should have a claim on any net gain associated with the sale of the**
3 **Auburn Line. Does the Company offer any new arguments in support of this**
4 **contention?**

5 A. No, it does not. P&G has obviously not paid for the entire line, or the net book value
6 would be zero. Moreover, as I demonstrate at pages 7 to 8 of my direct testimony, PNG
7 has made certain investments in the "PVR Interconnection" which it intends to include in
8 rate base if this transaction is not approved. P&G has not paid for these investments, but
9 PNG reports the costs associated with them as savings for ratepayers associated with the
10 transaction.

11 Moreover, PNG reiterates that, but for the proposed transaction, P&G would be likely to
12 bypass PNG, and presumably stop paying for the Auburn Line. Mr. Beard does not say
13 that, if P&G were to bypass PNG, PNG would write off the rate base value of the line.
14 Ratepayers other than P&G therefore have been (and would continue to be) at risk for the
15 recovery of costs associated with the line, as I stated in my direct testimony. Moreover,
16 even with the long-term contract cited by Mr. Beard, ratepayers would presumably
17 remain at risk for costs of the line if P&G were to close its facility, depending on the
18 Commission's assessment of whether the assets should remain in rate base.

19 Also, I believe that the Commission should carefully evaluate the implications of
20 establishing a precedent in which the only ratepayer beneficiaries of an asset sale are
21 those specific customers who are served by the assets being sold. Such a narrow focusing
22 of sale benefits may have implications in other transactions that are not readily
23 foreseeable.

24 **Q. At page 14, Mr. Beard asserts that you agree that "the entire cost of the line has**
25 **been assigned to and paid for almost exclusively by P&G." Is this accurate?**

26 A. Mr. Beard's statement is misleading. I testified that my records show that P&G appears
27 to have been allocated the utility capital costs associated with the Auburn Line in past
28 cost allocation studies, and that the revenues from P&G have generally exceeded
29 allocated costs. I did not testify that P&G has fully paid for the existing line.

1 Costs related to capital that are allocated in a utility cost allocation study include the
2 annual depreciation, return and income tax charges. Simply because those costs are
3 assigned to P&G in PNG's cost allocation study does not mean that P&G has necessarily
4 already paid the cost for the entire line. As I noted earlier, because the line still has a net
5 book value, there will be future costs associated with that line as part of PNG's rate base,
6 for which ratepayers other than P&G will be at risk.

7 **Q. At pages 6 to 7 of his rebuttal testimony, Mr. Beard claims that you ignored (a) the**
8 **fact that substantial investment would be required to turn the Auburn Line into a**
9 **gathering line, (b) that there would be risks associated with that investment, and (c)**
10 **that the value of the Auburn Line as a potential gathering line is not fixed. Is he**
11 **correct?**

12 A. No, he is not.

13 With respect to Mr. Beard's assertion that I ignored the necessary investments in the
14 Auburn Line to convert it to a gathering line, Mr. Beard apparently missed quite a
15 number of specific references to those costs in my direct testimony:

- 16 • At page 2, lines 17 to 21, I state that PNG estimates that UGIES will need to make a
17 \$15 million investment in the Auburn Line to convert it to a gathering line.
- 18 • At page 4, lines 21 to 24, I explicitly recognize that, in establishing the market value
19 of the Auburn Line, the required capital upgrades must be considered.
- 20 • At page 5, lines 6 to 8, I indicate that a \$15 million investment would be required to
21 convert the Auburn Line to a gathering line.
- 22 • At page 8, lines 10 to 14, I again explicitly recognize that consideration must be given
23 to the additional upgrade costs required to convert the Auburn Line to a gathering
24 line.

25 At best, Mr. Beard's first assertion is a gross mischaracterization of my direct testimony.

1 With respect to Mr. Beard's assertion that I ignored the risk associated with such an
2 upgrade, Mr. Beard is incorrect. My direct testimony recognizes that all investments
3 have risk. Mr. Beard details a number of these risks at some length in his rebuttal at
4 pages 8 to 10, and I have no particular disagreement with his observations. However,
5 Mr. Beard and I have consistently agreed that an important factor related to establishing
6 the market value of the Auburn Line as a gathering facility is the cost of the development
7 of a separate gathering line. When evaluating the issue of risk, it is important to
8 recognize that both a modification to the Auburn Line and the development of a new
9 gathering line would involve investment risk. As noted at page 8, lines 14 to 17, the risk
10 for a completely new gathering facility might very well be higher than those for the
11 Auburn Line conversion. For those reasons, as stated at page 5 to 6 of my direct
12 testimony, I recommended that a market valuation approach be used. In that way, the
13 market's assessment of the relative risks of the two different options could be determined,
14 rather than using an administrative calculation.

15 As to Mr. Beard's complaint that I testify that the market value of the Auburn Line is
16 fixed, I neither implied nor made any such assertion in my direct testimony.

17 **Q. At pages 10 to 11 of his rebuttal testimony, Mr. Beard indicates that PNG has**
18 **provided its assessment of the replacement cost of the Auburn Line, and that this**
19 **replacement cost is "considerably less than the present value to customers of**
20 **retaining the right to service Procter & Gamble and other customers on the line."**
21 **He goes on to assert that the replacement cost is an upper limit on the value, and**
22 **then details a variety of reasons why the actual market value of the Auburn Line**
23 **would be low. Is this relevant?**

24 **A.** No. Mr. Beard's rebuttal implies that the replacement cost for the Auburn Line,
25 exclusive of a new interconnection with Tennessee to allow the line to serve as a
26 gathering facility, is **** **BEGIN PROPRIETARY** [REDACTED] **END**
27 **PROPRIETARY** ****. That contrasts with the sale price of about \$242,000. As Mr.
28 Beard makes no effort to quantify all of the other factors which would affect the market
29 value of the transaction, I can only conclude that the market value lies somewhere

1 between **** **BEGIN PROPRIETARY** [REDACTED] **END**
2 **PROPRIETARY** **** and \$242,000. If, in fact, the Commission determines that
3 ratepayers other than P&G are entitled to share in the market value of the Auburn Line,
4 an open and public method must be devised for determining that value. My direct
5 testimony offered one such approach. And for the reasons I discussed earlier, the value
6 associated with continuing to serve P&G is unknown and unquantified at this time.

7 **Q. At page 15 of his rebuttal, Mr. Beard asserts that you misread the agreement**
8 **between UGIES and PNG and concluded that customers may be at risk of paying**
9 **for the line if the property is returned to PNG. Is this accurate?**

10 A. No, it is not. Mr. Beard has misread my testimony. My testimony includes no such
11 references or conclusions, as I did not address the issue of a return of the property.

12 **Q. Does this conclude your surrebuttal testimony?**

13 A. Yes, it does.