STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

JOINT **PETITION** BY THE **INDIANA** FINANCE) ("AUTHORITY") **AUTHORITY** AND INDIANA) GASIFICATION, LLC ("INDIANA GASIFICATION") FOR) THE INDIANA UTILITY REGULATORY COMMISSION TO (1) APPROVE A SUBSTITUTE NATURAL GAS PURCHASE AND SALE AGREEMENT ENTERED INTO BY THE AUTHORITY AND INDIANA GASIFICATION FOR THE SALE BY INDIANA GASIFICATION AND PURCHASE BY THE AUTHORITY OF SUBSTITUTE NATURAL GAS ("SNG") OVER A 30-YEAR TERM PURSUANT TO I.C. 4-4-11.6; (2) IF NECESSARY, ORDER INDIANA REGULATED ENERGY UTILITIES TO ENTER INTO A MANAGEMENT CONTRACT WITH THE AUTHORITY: (3) DECLINE TO EXERCISE JURISDICTION PURSUANT TO I.C. 8-1-2.5-5 OVER INDIANA GASIFICATION WITH RESPECT TO ITS FINANCING, CONSTRUCTING, **OWNING** AND OPERATING SNG PRODUCTION AND TRANSPORTATION FACILITIES, AND AN ANCILLARY INTEGRATED COAL GASIFICATION POWERPLANT ("ICGP FACILTIES") AND ELECTRIC GENERATION FACILITIES WHICH USE CLEAN COAL **TECHNOLOGY** IN CONNECTION THEREWITH, AND WHICH PRODUCES SNG TO BE SOLD TO THE AUTHORITY AND OTHER PERSONS, AND PRODUCES ELECTRICITY WHICH WILL BE SOLD TO ENERGY UTILITIES; AND (4) GRANT ALL OTHER) APPROPRIATE AND ASSOCIATED APPROVALS AND RELIEF.

FILED
April 18, 2011
INDIANA UTILITY
REGULATORY COMMISSION

CAUSE NO. 43976

CROSS-ANSWERING TESTIMONY OF

RALPH E. MILLER - PUBLIC'S EXHIBIT NO. 2-CA

TYLER E. BOLINGER - PUBLIC'S EXHIBIT NO. 3-CA

ON BEHALF OF

THE INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

APRIL 18, 2011

Respectfully submitted,

Randall C. Helmen, Atty. No. 8275-49 Chief Deputy Consumer Counselor

CROSS-ANSWERING TESTIMONY OF RALPH E. MILLER CAUSE NO. 43976

INDIANA FINANCE AUTHORITY AND INDIANA GASIFICATION

1	Q:	PLEASE STATE YOUR NAME, OCCUPATION, AND ADDRESS.
2	A:	My name is Ralph E. Miller. I am an independent consulting economist. My office is at
3		5502 Western Avenue, Chevy Chase, Maryland 20815.
4	Q:	HAVE YOU SUBMITTED OTHER TESTIMONY IN THIS PROCEEDING?
5	A:	Yes. My direct testimony was filed March 23, 2011 as Public's Exhibit No. 1.
6	Q:	WHAT IS THE PURPOSE OF THIS CROSS-ANSWERING TESTIMONY?
7	A:	I am responding to the direct testimony of the following other witnesses:
8		 Vectren Energy witnesses Jerrold L. Ulrey, Stephen L. Thumb, and Ronald Norman
10		Citizens Groups witness Robert McCullough
11		• Six Indiana LDCs witness John T. Stenger.
12		Each of these parties (Vectren, Citizens Groups, and Six LDCs) claims that Indiana
13		Gasification's (IG) base case forecast of natural gas prices is far too high. Each party
14		presents an alternative natural gas price forecast and uses that alternative forecast to
15		determine the likely net benefits (or net losses) to Indiana customers from the proposed
16		SNG Contract. Each party's witnesses conclude that the SNG Contract is likely to result

in losses for Indiana customers, and each party's witnesses recommend that the

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1 Commission should not approve the SNG Contract. For each party, the results of the 2 benefits analysis based on alternative natural gas price projections are a major part of the 3 reason for recommending rejection of the SNG Contract. (Each party also presents other 4 reasons for rejecting the contract, but I am not addressing those other issues.) 5 0: DO YOU HAVE AN EXPERT OPINION OR POSITION ON WHETHER THE 6 ALTERNATIVE NATURAL GAS PRICE FORECASTS ARE BETTER OR 7 MORE LIKELY THAN IG'S BASE CASE FORECAST? 8 A: No. It is not important for the Commission to determine which natural gas price forecast 9 is "best" or most likely. The Commission should instead try to identify a range within 10 which future gas prices are likely to occur, and to make some assessment of the 11 likelihood that future gas prices will occur in each part of that range. The Commission 12 can then make judgments about the likely range of possible net benefits or net losses to 13 Indiana customers from the SNG Contract, and it can assess the likelihood of various 14 possible levels of net benefits or net losses. 15 Q: WHY IS IT IMPORTANT FOR THE COMMISSION TO IDENTIFY A RANGE 16 OF REASONABLY LIKELY FUTURE NATURAL GAS PRICES? 17 A: The purpose of the proposed SNG Contract is to hedge the risk that future natural gas 18 prices may be very high. Even if the Commission concludes that the contract would 19 yield net losses to Indiana customers under the single, "most likely" gas price forecast, 20 that conclusion would not be an appropriate reason for rejecting the contract. Neither 21 would a conclusion that there is a 55% probability that the contract will yield net losses, 22 and only a 45% probability of net benefits. If the losses would result from low natural 23 gas prices in future years, and if the SNG Contract would generally yield net benefits if

gas prices turn out to be high in the future, then the SNG Contract would still be a hedge

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against high gas prices. On the other hand, if the Commission concludes that there is 2 only a 1% probability that the SNG Contract will yield net benefits, then it should conclude that the contract is not an effective hedge against high gas prices.

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DO YOU HAVE ANY COMMENTS ABOUT THE EXTENT OF THE RANGE OF Q: 4 REASONABLY LIKELY FUTURE NATURAL GAS PRICES? 5

Yes. The IG base case natural gas price forecast is within that range. The forecasts projecting much lower natural gas prices — including the Energy Ventures Analysis (EVA) forecast presented by Vectren witness Thumb and the EIA forecasts used by Citizens Groups witness McCullough and Six LDCs witness Stenger — are based on the expectation that there will be an enormous expansion of shale gas production at costs of around \$5.50 per Dth or less. Even if the Commission concludes that rapid and relatively low-cost growth of shale gas production is at this time the most likely outcome (and, as I stated, I have no position on this issue), it is certainly not the only plausible outcome.

At page 12 of his testimony, Vectren witness Ulrey presents the Bipartisan/Clean Skies Report (Exhibit JLU-3) in support of his view that the rosy outlook for shale gas will reduce gas price volatility and implicitly also lead to lower future gas prices than had been expected even a year or two ago. However, at pages 37-40, the same report also emphasizes that there remain "large uncertainties" that cloud this rosy outlook. Three sources of uncertainty are identified in the report: (1) "to what extent current resource assessments accurately capture the actual economically recoverable resource base;" (2) "the cost of producing and delivering shale gas;" and (3) "the environmental

risks associated with shale gas development and their implications for public acceptance of increased shale gas production in different areas of the country." This coalition report thus admits candidly that the favorable gas supply situation that it foresees is not in any way guaranteed, but just the coalition's view of the most likely outcome. EIA's AEO [Annual Energy Outlook] 2011 Early Release Overview mentions the same three concerns — the quantity of economically recoverable shale gas supplies, the cost of producing them, and environmental concerns — in connection with its own downward revision of projected future natural gas prices.

The EVA report presented by Vectren witness Thumb provides a further perspective on the environmental concerns. It identifies and discusses "seven highly publicized incidents concerning potential well water contamination" and claims that "all ... have been shown to be false allegations" (Exhibit SLT-3, pages 2-20 and 2-21.) One of the incidents discussed there is water contamination in Susquehanna County, PA, where Cabot Oil & Gas was drilling in the Marcellus shale. The EVA report states that the contaminant there was benzene, toluene, and xylene (BTX), which are not used in fracturing, attributing this information to *Natural Gas Week* and the *Oil & Gas Journal*. However, the May 2011 issue of *Discover*, a popular science and technology magazine, reports an incident in Dimock, PA, and the information it provides is not entirely consistent with the EVA report. According to the *Discover* story on "Fracking America," the Pennsylvania Department of Environmental Protection found high levels of methane in some Dimock water supplies, and that story makes no mention of BTX.

I do not know whether the Dimock incident is the same as the one in the EVA report, but Dimock is in Susquehanna County, and the drilling there was done by Cabot O&G. It is also possible that EVA and *Discover* are describing the same incident, and that both reports are correct but incomplete — *Discover* may have omitted mention of the BTX that was also found in the water, and either the EVA report or its cited sources may have omitted mention of the methane that was also found there. The important lesson here is that public perceptions may differ from the gas industry perspective on the environmental risks of shale gas, and that these public perceptions may affect and impede the course of shale gas development even if they are somehow "wrong" in the judgment of some ostensibly impartial expert authorities.

A:

Q: AT PAGE 30 OF HIS TESTIMONY, VECTREN WITNESS NORMAN CLAIMS THAT THE WIDE RANGE OF POSSIBLE GAINS OR LOSSES FROM THE SNG CONTRACT SHOWS IT IS AN INEFFECTIVE HEDGE. DO YOU AGREE?

No. Mr. Norman has it backwards, and his testimony on this point misrepresents the fundamental purpose and function of a hedge. The purpose of a hedge is to protect against the uncertainty or variability of the cost of an underlying transaction that will be made sometime in the future. A perfect hedge will yield a gain if the actual future cost of the underlying transaction turns out to be at the high end of its possible range, and the hedge will yield a loss if the actual future cost of the underlying transaction is at the low end. If the actual future cost of the underlying transaction is high, the gain on the hedge offsets the excess of the actual future cost of the underlying transaction, so the combination of the hedge gain plus the high underlying cost equals the cost that was expected when the hedge was arranged, before the actual future cost of the underlying

transaction was known. Conversely, if the actual future cost of the underlying transaction is low, the unexpected savings on that actual cost is offset by the loss on the hedge, again yielding the originally expected cost of the underlying transaction.

If the range of possible costs for the underlying transaction — in this case, the purchase of natural gas over a thirty-year time span — is wide, then the range of possible gains and losses on the hedge (the SNG Contract) must be equally wide in order to offset the uncertainties in the range of costs of the underlying natural gas purchases.

By focusing on the range of possible outcomes for the SNG Contract alone, Mr. Norman not only misses the point of a hedge, he negates it. His own testimony suggests the purchase of NYMEX natural gas futures contracts as a hedge. But futures contracts, which in some respects are near-perfect hedges, exhibit exactly the same wide variability in possible outcomes that Mr. Norman criticizes in the SNG Contract. If actual natural gas prices turn out to be much higher in the future than the present prices of the NYMEX contracts, the NYMEX contracts themselves will yield large profits. And if actual natural gas prices turn out to be much lower in the future than the present prices of the NYMEX contracts, the NYMEX contracts themselves will yield large losses. The uncertainty about the eventual amount of gains or losses on the hedge itself is thus the essence of the hedge, not something that detracts from its purpose.

Q: DOES THIS CONCLUDE YOUR CROSS-ANSWERING TESTIMONY?

20 A: Yes, it does.

CROSS-ANSWERING TESTIMONY OF TYLER E. BOLINGER CAUSE NO. 43976 INDIANA FINANCE AUTHORITY & INDIANA GASIFICATION

I. Purpose and Qualifications

1	Q:	Please state your name and business address.
2	A:	My name is Tyler E. Bolinger, and my business address is 115 W. Washington
3		St., Suite 1500 South, Indianapolis, IN 46204.
4	Q:	By whom are you employed and in what capacity?
5	A:	I am employed as the Director of the Electric Division for the Indiana Office of
6		Utility Consumer Counselor (OUCC).
7	Q:	Please describe your credentials.
8	A:	I graduated from Ohio University in 1982 with a Bachelor's degree in economics.
9		I was named to the Phi Beta Kappa Honor Society and the National Dean's List
10		during my senior year of undergraduate studies. I attended graduate school at
11		Michigan State University and received a Master's degree in economics in 1984.
12		In 1985, I completed all course work and comprehensive examinations required
13		for a Ph.D. degree in economics. I have also completed several courses in
14		accounting, including intermediate accounting and advanced financial accounting.
15		I became Director of the OUCC's Electric Division in May, 2008. Prior to
16		that, I was the OUCC's Natural Gas Director (1999 to 2008) and the OUCC's
17		Chief Economist (1994 to 1999) with responsibilities in electricity, natural gas,
18		telecommunications, water, and sewer regulation. I began my regulatory career

with the Indiana Commission as a Utility Analyst in 1987. In 1990 I was transferred to the OUCC at the time of the reorganization of the Commission and the OUCC. During 1985 and 1986, I worked as an Economic Analyst with the Indiana Department of Commerce.

Q:

A:

While employed by the IURC, I attended the regulatory studies program at Michigan State University sponsored by the National Association of Regulatory Utility Commissioners (NARUC). Since then I have attended numerous other energy, regulatory, and financial training seminars. I have worked on a wide variety of gas, electric, telecommunications, water and sewer issues, including Alternative Regulatory Plans (ARPs). I have testified before the IURC on many issues, including ARPs, regulatory policy, utility planning, cost of capital, fair return, fair value ratemaking, utility finance, gas costs, gas procurement, and gas rate decoupling.

What is the purpose of your cross-answering testimony?

My cross-answering testimony will primarily respond to testimony put forth by Vectren Energy in this Cause. Through testimony of four witnesses, Vectren attempts to cast itself as representing the interests of Indiana ratepayers. My testimony will explain that Vectren has major conflicts of interest, which undermine its credibility as an advocate for ratepayers. Also, one of the major topics covered by Vectren is coal supply and procurement in the Illinois Basin. I will describe Vectren's recent poor performance regarding coal procurement and its conflicts of interests in this area. Here again, this poor performance, combined with Vectren's conflicts of interest, undermines Vectren's credibility with regard

1 to promoting ratepayer interests and coal procurement. Finally, I will briefly 2 respond to testimony by NIPSCO witness Mr. Frank A. Shambo regarding the 3 difficulty of predicting natural gas prices very far into the future.

What did you do to prepare to testify in this Cause? Q:

A: I reviewed the joint petition and testimony and exhibits filed in this Cause. I also reviewed Ind. Code 4-4-11.6. (SNG Legislation) I reviewed material related to 7 Vectren's performance as a coal buyer for its electric utility operation. I also reviewed material related to Vectren's coal mining operations. Vectren Fuels, supplies the vast majority of coal purchased by Vectren's electric 10 utility.

II. Vectren's Conflicts of Interest

11 Q: Is Vectren a coal producer?

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Yes. Vectren Corporation has a coal mining affiliate that mines and sells coal to A: Vectren's electric utility and to other third parties through a wholly owned subsidiary, Vectren Fuels. The company owns three underground mines (Prosperity, Oaktown 1 and Oaktown 2) and one surface mine (Cypress Creek). All mines are in Indiana and produce coal from the Illinois Basin. electric utility (Vectren South) has purchased the vast majority of its coal from Vectren Fuels for the last several years. The shareholders that own the electric utility (coal buyer) also own Vectren Fuels (coal seller).

Q: Does this create conflicts between ratepayer and shareholder interests?

21 A: Yes. The electric utility has a duty to make every reasonable effort to provide

electricity to its customers at the lowest fuel cost reasonably possible. This duty 1 2 conflicts with Vectren shareholder interests in maximizing the profit earned by 3 Vectren Fuels on its sales of coal to Vectren South. Reasonable efforts to lower fuel costs at Vectren South could certainly lead to lower profits at Vectren Fuels. 4 5 This creates a conflict. 6 Q: In its testimony in this Cause, does Vectren disclose its coal mining interests 7 or the conflict between ratepayer interests in receiving the lowest fuel cost 8 reasonably possible and Vectren shareholder interests in maximizing coal 9 mining profits? 10 I do not recall such disclosures. A: 11 Why are Vectren's conflicts of interest relevant in the current proceeding? O: 12 A: Vectren purports to represent ratepayer interests in this Cause. The OUCC 13 believes that Vectren's conflicts of interest severely compromise its credibility as 14 a ratepayer advocate. The Commission should understand and consider these 15 conflicts of interest when it decides how much weight to give to Vectren's 16 testimony proffered in this Cause. III. Vectren's Coal Procurement Performance 17 Has Vectren's control of coal mines in the Illinois Basin resulted in low coal Q: 18 costs for Vectren South? 19 A: No, not recently at least. Despite Vectren South's location in the Illinois Basin, 20 this utility has recently maintained the highest costs of steam generation and the 21 highest fuel costs among major Indiana electric utilities. In Vectren South's 22 quarterly fuel adjustment (FAC) proceedings, OUCC witness Mr. Michael Eckert,

¹ Ind. Code 8-1-2-42(d)(1)

1 CPA, routinely presents comparative information for Indiana's major utilities. 2 My Attachment TEB-1 contains the most recent version of the comparison based 3 on steam generation costs. My Attachment TEB-2 shows a second comparison 4 based on fuel costs in mills per kilowatt-hour. These attachments highlight how 5 non-competitive Vectren South's cost of steam generation has become, compared 6 to other utilities in Indiana like Indianapolis Power & Light Company (IPL). I 7 understand that IPL procures competitively and also relies heavily on Indiana 8 coal. I also understand that IPL does not have a self-dealing arrangement with a 9 coal affiliate comparable to the Vectren South – Vectren Fuels relationship. 10 O: Why is Vectren's poor performance at coal procurement relevant in this 11 Cause? 12 A: Vectren presents itself as a coal and fuels market expert and advisor to the 13 Commission in this Cause. The OUCC believes that Vectren's poor performance 14 at coal procurement seriously calls its credibility into question when addressing 15 matters related to coal. 16 Q: Did you review the testimony of Ms. Emily Medine on behalf of Vectren? 17 A: Yes. Ms. Medine's testimony addresses coal and petroleum coke markets and the 18 potential use of Indiana coal by the SNG plant. With regard to Indiana coal, Ms. 19 Medine concludes that the likelihood of the SNG plant using Indiana coal is 20 diminished due to the plant's access to barge delivered coal on the Ohio river. 21 She testifies that: 22 The location of this project and what is known of its 23 planned infrastructure would heavily favor use of Illinois 24 Basin coal from other states and potentially give such states

1 2		a price advantage on a delivered cost basis. [Medine direct, p. 17, lines $13 - 15$.]
3		Ms. Medine's exact meaning and purpose behind this testimony are open
4		to interpretation. However, it does leave the reader to wonder whether Vectren
5		would be more supportive of the project contemplated by the SNG legislation if
6		its location did not lend itself to a highly competitive coal procurement process.
7		A different project location might make it easier for high cost coal to compete, but
8		that situation would not serve ratepayer interests.
9 10	Q:	Will it be a detriment to Indiana ratepayers if the plant conducts a highly competitive coal procurement process?
11	A:	No.
12		IV. NIPSCO Witness Mr. Shambo
13	Q:	Did you read the testimony of NIPSCO witness Mr. Frank Shambo?
14	A:	Yes. In his Question 16 (page 12) Mr. Shambo describes his extensive gas market
15		experience and the difficulty of predicting natural gas prices. Mr. Shambo testifies
16		in part:
17 18 19 20 21 22 23 24 25		Lastly, I have learned that predicting natural gas prices very far into the future is nearly impossible. Because of the price volatility and related negative impact on customers, NIPSCO now routinely hedges gas supplies both financially and physically. These hedges historically covered a one to three year period, with nothing approaching 30 years. A 30-year financial hedge, with a large portion of the hedge tied to a fixed component, will make prices more consistent from year to year for customers. (Shambo Direct, pp. 12-13.)

1 A: Yes. I do, based on my experience as the OUCC's Natural Gas Director. I came into 2 that position in 1999, toward the end of an extended period of relatively low gas 3 prices. Natural gas had become extremely popular, and its use was growing for 4 electric power generation. However, the early part of the next decade saw a painful 5 period of gas price spikes. As I recall, the Commission had generally supported a 6 diversified portfolio approach to gas purchasing even before these price spikes. 7 That support solidified during the decade of the 2000s. Thus, my own experience 8 confirms Mr. Shambo's position in this regard.

9 Q: Does this conclude your cross-answering testimony?

10 A: Yes.

Attachment MDE-1 Page 1 of t

Vectren South - Electric Cause No. 38708 GAC-90

Steam Generation Cost Comparison

		Duke	Indiana Michigan	Indianapolis Power &		Vectren
Month	Year	Energy	Power	Light	NIPSCO	South
January	2007	Die gy	17.170	13.258	19.628	\$20.067
February	2007		16.302	13.658	19.596	\$20,069
March	2007		17.037	13.241	19.639	\$19.883
IngA	2007		17 769	13.688	19,540	\$20,585
May	2007		18.673	13.579	20,843	\$20.707
June	2007		16.973	14.096	20.389	\$20.182
July	2007		17,916	14.094	21.661	\$20.429
August	2007		19.025	14.530	20.498	\$20.422
August	2007					\$20.422
September	2007		20.209	14.002	20.295	\$19.849
Octoper	2007		20 572	14.038	20.777	\$20.904
November	2007		26 158	13,596	20,928	\$20.652
December	2007		20.936	13.583	21,147	\$21.612
าบเกลงเล	2008		19.527	14.241	20.253	\$20.948
February	2008		20.362	14,706	22,090	\$21.970
March	2008		23.903	15.223	22,098	\$20.854
April	2008		20.990	14.687	22.363	\$22,476
May	2008		22.972	15.028	22.700	\$22.579
June	2008		23.708	15,694	22.885	\$22.903
July	2008		23.512	15.753	22.269	\$21.947
August	2008		26.033	16.174	22,720	\$21.701
September	2008		26.369	16.089	22.392	\$21.398
October	2008		28.047	16.990	20.222	\$21.922
November	2008		26.882	16.446	21.422	\$21.192
December	2008		25.630	16.200	22.406	\$21.476
January	2009		25.582	16,107	25,922	\$25.786
February	2009		24.000	15.711	28.132	\$28.839
March	2009		20.815	15,782	26.784	\$29.188
April	2009		23.918	15.672	26.647	\$30.698
May	2009		21.705	15.793	26.314	\$33.507
June	2009		23.730 .	15.295	26.048	\$32,740
July	2009		22.364	15,113	26.327	\$32.846
August	2009		20.489	15.247	25.707	\$33.152
September	2009		19.544	14.968	25.708	\$34.242
October	2009		22.783	15.046	25.820	\$31.128
November			22.076	14.985	26.323	\$33.328
December	2009		22,543	15.117	27.094	\$33.067
January	2010		21.322	15.724	27.370	\$31.800
February	2010		20.569	17,057	26.853	\$32,762
March	2010		22.576	18.453	25.518	\$32.732
April	2010		22.109	18,843	26,032	\$33.361
May	2010		22.244	19.988	25.762 27.820	\$34.854 \$32,529
June	2010			20.389	27.820	\$12,349
July	2010			20.687	32.402 26.834	\$33.720 \$33.480
August	2010			21,080 20,705	26.834	J.46()
September	2010			20.703	20,113	
October	2010			21.082		
November	2010					
December	2010					

Comparable information was not available for Duke at the time of this filing.

"" Information was obtained from the profiled applications of the identified companies.

Attaclument MDE-2 Page | of 1

Vectren South - Electric Cause No. 38708 GAC-90

Actual Cost of Fuel (Mills/kWh) Comparison

February 2007 20.526 72 11.853 59 18.388 76 33 78 78 34 76 26 78 78 77 36 37 38 38 38 38 38 38 38	5.497 75 3.278 75 5.336 75 6.958 76 6.934 76 2.563 76 77 77	23.258 22.609 25.221 23.808 22.858 18.872	76 76 76 77
March 2007 16.663 73 11.358 59 18.436 76 26 April 2007 20.748 73 12.022 59 17.626 76 25 May 2007 21.021 73 11.225 59 17.807 77 30 June 2007 17.418 74 11.088 60 15.589 77 32 July 2007 21.455 74 11.943 60 17.772 77 35 August 2007 26.428 74 12.454 60 21.676 78 35 August 2007 18.147 75 13.895 60 18.446 78 26 October 2007 16.620 75 14.564 60 21.142 78 24 November 2007 18.545 76 11.834 61 17.212 79 40 January 2008 21.946 76 <td>5.336 75 5.958 76 0.934 76 2.563 76 5.423 77 5.433 77</td> <td>25.221 23.808 22.858 18.872</td> <td>76 76</td>	5.336 75 5.958 76 0.934 76 2.563 76 5.423 77 5.433 77	25.221 23.808 22.858 18.872	76 76
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September 2007 18.147 75 13.895 60 18.446 78 26 October 2007 21.620 75 14.564 60 21.142 78 24 November 2007 16.620 75 13.773 60 17.260 79 24 December 2007 18.545 76 11.834 61 17.212 79 40 January 2008 21.946 75 12.156 61 18.146 79 28 February 2008 22.933 76 13.413 61 18.902 80 32 March 2008 29.699 77 14.311 61 19.380 80 33 April 2008 24.034 77 16.399 61 18.572 80 28 May 2008 20.159 77 14.082 61 16.300 81 28 June 2008 30.286	5.007 77	29.769	77
October 2007 21.620 75 14.564 60 21.142 78 24 November 2007 16.620 75 13.773 60 17.260 79 24 December 2007 18.545 76 11.834 61 17.212 79 40 January 2008 21.946 76 12.156 61 18.146 79 28 February 2008 22.933 76 13.413 61 18.902 80 32 March 2008 29.699 77 14.311 61 19.380 80 33 April 2008 24.034 77 16.399 61 18.572 80 28 May 2008 20.159 77 14.082 61 16.300 81 28 June 2008 30.286 78 15.185 62 23.130 81 33 July 2008 25.296 7	5.007 77	28.097	77
November 2007 16.620 75 13.773 60 17.260 79 24 December 2007 18.545 76 11.834 61 17.212 79 40 January 2008 21.946 76 12.156 61 18.146 79 28 February 2008 22.933 76 13.413 61 18.902 80 32 March 2008 29.699 77 14.311 61 19.380 80 33 April 2008 24.034 77 16.399 61 18.572 80 28 May 2008 20.159 77 14.082 61 16.300 81 28 June 2008 30.286 78 15.185 62 23.130 81 33 July 2008 25.296 78 15.569 62 24.171 81 32 August 2008 25.728 78		22.298	78
December 2007 18.545 76 11.834 61 17.212 79 40 January 2008 21.946 75 12.156 61 18.146 79 28 February 2008 22.933 76 13.413 61 18.902 80 32 March 2008 29.699 77 14.311 61 19.380 80 33 April 2008 24.034 77 16.399 61 18.572 80 28 May 2008 20.159 77 14.082 61 16.300 81 28 June 2008 30.286 78 15.185 62 23.130 81 33 July 2008 25.296 78 15.569 62 24.171 81 32 August 2008 25.728 78 17.520 62 20.897 82 28 September 2008 24.964 7	1.308 78	25.574	78
January 2008 21,946 76 12,156 61 18,146 79 28 February 2008 22,933 76 13,413 61 18,902 80 32 March 2008 29,699 77 14,311 61 19,380 80 33 April 2008 24,034 77 16,399 61 18,572 80 28 May 2008 20,159 77 14,082 61 16,300 81 28 June 2008 30,286 78 15,185 62 23,130 81 33 July 2008 25,296 78 15,569 62 24,171 81 32 August 2008 25,728 78 17,520 62 20,897 82 28 September 2008 24,964 79 16,509 62 20,028 82 28 October 2008 24,546 79 20,783 62 20,981 82 26 November 2008 24,389 79 20,375 62 19,596 83 23	1.781 78	19.199	78
February 2008 22.933 76 13.413 61 18.902 80 32 March 2008 29.699 77 14.311 61 19.380 80 33 April 2008 24.034 77 16.399 61 18.572 80 28 May 2008 20.159 77 14.082 61 16.300 81 28 June 2008 30.286 78 15.185 62 23.130 81 33 July 2008 25.296 78 15.569 62 24.171 81 32 August 2008 25.728 78 17.520 62 20.897 82 28 September 2008 24.964 79 16.509 62 20.028 82 28 October 2008 24.546 79 20.783 62 20.981 82 26 November 2008 24.389 7),363 78	23.509	79
March 2008 29,699 77 14,311 61 19,380 80 33 April 2008 24,034 77 16,399 61 18,572 80 28 May 2008 20159 77 14,082 61 16,300 81 28 June 2008 30,286 78 15,185 62 23,130 81 33 July 2008 25,296 78 15,569 62 24,171 81 32 August 2008 25,728 78 17,520 62 20,897 82 28 September 2008 24,964 79 16,509 62 20,028 82 28 October 2008 24,546 79 20,783 62 20,981 82 26 November 2008 24,389 79 20,375 62 19,596 83 23	3.307 79	23.349	79
April 2008 24,034 77 16,399 61 18,572 80 28 May 2008 20159 77 14,082 61 16,300 81 28 June 2008 30,286 78 15,185 62 23,130 81 33 July 2008 25,296 78 15,569 62 24,171 81 32 August 2008 25,728 78 17,520 62 20,897 82 28 September 2008 24,964 79 16,509 62 20,028 82 28 October 2008 24,546 79 20,783 62 20,981 82 26 November 2008 24,389 79 20,375 62 19,596 83 23	2.597 79	25.213	79
May 2008 20 159 77 14,082 61 16,300 81 28 June 2008 30,286 78 15,185 62 23,130 81 33 July 2098 25,296 78 15,569 62 24,171 81 32 August 2008 25,728 78 17,520 62 20,897 82 28 September 2008 24,964 79 16,509 62 20,028 82 28 October 2008 24,546 79 20,783 62 20,981 82 26 November 2008 24,389 79 20,375 62 19,596 83 23	1.271 79	27.944	80
June 2008 30,286 78 15,185 62 23,130 81 33 July 2008 25,296 78 15,569 62 24,171 81 32 August 2008 25,728 78 17,520 62 20,897 82 28 September 2008 24,964 79 16,509 62 20,028 82 28 October 2008 24,546 79 20,783 62 20,981 82 26 November 2008 24,389 79 20,375 62 19,596 83 23	8.639 80	27.651	80
July 2008 25.296 78 15.569 62 24.171 81 32 August 2008 25.728 78 17.520 62 20.897 82 28 September 2008 24.964 79 16.509 62 20.028 82 28 October 2008 24.546 79 20.783 62 20.981 82 26 November 2008 24.389 79 20.375 62 19.596 83 23	8.679 80	21.578	80
August 2008 25.728 78 17.520 62 20.897 82 28 September 2008 24.964 79 16.509 62 20.028 82 28 October 2008 24.546 79 20.783 62 20.981 82 26 November 2008 24.389 79 20.375 62 19.596 83 23	3.815 80	32.326	81
September 2008 24,964 79 16,509 62 20,028 82 28 October 2008 24,546 79 20,783 62 20,981 82 26 November 2008 24,389 79 20,375 62 19,596 83 23	2.511 81	26.389	81
October 2008 24.546 79 20.783 62 20.981 82 26 November 2008 24.389 79 20.375 62 19.596 83 23	3.751 81	23.701	81
November 2008 24,389 79 20,375 62 19,596 83 23	3.292 81	25.788	82
	5,998 82	29.726	82
	3.261 82	22.083	82
December 2008 23.936 80 18.698 63 19.337 83 25	5.457 82	31.687	83
	0.202 83	30.813	83
	7,775 83	28.921	83 84
March 2009 24.500 81 15.505 63 18.589 84 27	7.307 83	31.381	04
April 2009 24.759 81 19.811 63 18.739 84 29	2.287 84	34.001	84
May 2009 22.499 81 16.054 63 20.030 85 27	7.833 84	30.723	84
June 2009 27.280 82 16.643 64 18.840 85 29	0.152 84	31.368	85
July 2009 26.289 82 15.337 64 18.466 85 27	7.687 85	33.710	85
August 2009 25,006 82 15,682 64 18,198 86 27	7.712 85	29.665	85
September 2009 22,959 83 14,044 64 18,897 86 26	5.006 85	32.274	86
	5.106 86	33.583	86
	5.635 86	29.872	86
December 2009 19.885 84 16.357 65 18.259 87 30	0.148 86	33.634	87
	3.790 87	39.151	87
	3.178 87	31.902	87
March 2010 24.621 85 18.985 65 22.269 88 26	5,411 87	33.092	88
	1.716 88	39.423	88
-	2,805 88	32,517	88
June 2010 26.848 86 25.690 89 31	.756 88	35,331	89
	1.182 89	39.798	89
	3.523 89	31,924	89
September 2010 24,232 90 24			
October 2010 24.893 90	1.429 89		
November 2010			
December 2010			

AFFIRMATION

I affirm, under the penalties for perjury, that the foregoing representations are true.

Tyler Bolinger
By: Tyler E. Bolinger
Indiana Office of

Utility Consumer Counselor

April 18, 2011

Date

Cause No. 43976

CERTIFICATE OF SERVICE

This is to certify that a copy of the foregoing OUCC CROSS-ANSWERING

TESTIMONY has been served upon the following counsel of record in the captioned proceeding by electronic service on April 18, 2011.

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