BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Joint Motion to Modify the December 2, 2009 Opinion and Order and the September 7, 2011 Second Opinion and Order in Case No. 08-1344-GA-EXM.	)))))	Case No. 12-2637-GA-EXM

DIRECT TESTIMONY OF STACIA HARPER ON BEHALF OF OHIO PARTNERS FOR AFFORDABLE ENERGY

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Q. PLEASE STATE YOUR NAME, TITLE, AND BUSINESS ADDRESS.

A. My name is Stacia Harper. My business address is 231 West Lima Street, Findlay, Ohio 45840. I am the Director of Regulatory Affairs and Energy Policy for Ohio Partners for Affordable Energy (OPAE), and I appear in this case as a witness on its behalf.

Q. PLEASE DESCRIBE YOUR BACKGROUND AND QUALIFICATIONS FOR YOUR TESTIMONY IN THIS PROCEEDING.

A. My career has covered a broad spectrum of activities in the energy industry including policy analysis at both the federal and state levels; experience in wholesale and retail market activities in both natural gas and electric markets; extensive involvement with regional transmission organizations; trading experience in PJM/ECAR; and the development of national energy modeling methods and systems. I have worked with alternative fuel implementation and distributed generation and have extensive knowledge of energy and environmental policy, including renewable energy development and sustainability.

I have a Bachelor of Arts degree with dual majors in Political Science and Economics from West Virginia University (1995) and Master of Science degree in Resource and Applied Economics (2000), with a specialization in Energy Economics from the University of Alaska Fairbanks. I have also

completed all required coursework towards a Ph.D. in Environmental and Resource Economics at West Virginia University. I have been employed in the energy industry since 1998, first with the University of Alaska Fairbanks (Graduate Research Assistant, 1998-2000), then Science Applications International Corporation ("SAIC") and the U.S. Department of Energy National Energy Technology Center ("DOE/NETL") as a Project Manager from 2001-2004. From 2004-2006, I was employed by American Electric Power ("AEP") as an Associate in Commercial Operations and joined Direct Energy as a Senior Analyst from 2006-2008. Before joining Ohio Partners for Affordable Energy ("OPAE") in October of 2010, I was employed by the Ohio Consumers Counsel as the Federal Policy Advisor (2008-2010).

While at University of Alaska I focused on alternative energy for distributed generation applications. My Master's thesis was on the use of polymer electrolytic membrane ("PEM") fuel cells for distributed generation in Alaskan villages. At SAIC, a subcontractor to the DOE/NETL, my areas of specialization included valuation of environmental benefits from new technology system implementation in coal plants, demand and supply estimation for both renewable and fossil fuel based energy, as well as price forecasting for production and delivered product. Many of my responsibilities involved working directly with national energy models such

as the National Energy Modeling System (NEMS) to assist in reviewing and recommended forecast methodology, baseline assumptions that were used in determining forecasted demand, supply, and energy prices associated with electric power generation (coal, natural gas, wind, solar, biomass). As Project Manager with the DOE/NETL I was in charge of alternative fuel implementation for vehicles in India, a joint project with the U.S. Agency for International Development project. Through my experiences at AEP and Direct Energy I was directly involved with wholesale market operations gaining experience to the various PJM administered wholesale markets, natural gas wholesale and retail markets, long-term contracts, and portfolio management. My role as the Federal Energy Policy Advisor with the Office of the Ohio Consumers' Counsel required direct involvement in the development and review of new and existing energy policy.

I attach my resume listing my testimony and publications as Exhibit SH-1.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE OHIO PUBLIC UTILITIES COMMISSION ("PUCO" or "Commission")?

A. Yes. In Case No. 10-176-EL-ATA I testified on a potential solar/wind project as part of a long-term solution to meet the need to provide all-electric customers of the FirstEnergy operating companies – The

Cleveland Electric Illuminating Company, Ohio Edison Company, and The Toledo Edison Company – with affordable electric service using an alternative procurement method. I also provided testimony in Case No. 12-1842-GA-EXM where I testified regarding Dominion East Ohio's motion to eliminate standard choice offer ("SCO") service and to exit the merchant function for non-residential customers.

Q. PLEASE DESCRIBE THE PURPOSE OF YOUR TESTIMONY.

A. The purpose of my testimony is to define what constitutes competition in Ohio natural gas markets; to provide an analysis of pricing differentials among the various supply options available to customers today; to discuss the current state of the market in Columbia Gas of Ohio's ("Columbia") service area in terms of suppliers and supply options; and, to explain how limiting supply options will affect the price, terms, and conditions of natural gas service available to Columbia's customers. I will also discuss the impact on competition of the fee placed on SCO providers.

Q. PLEASE DEFINE COMPETITION.

A. Competition is an economic concept. Oftentimes when we speak of competition, we are referring to the concept of "perfect competition". There are five criteria that must be met for perfect competition to exist: 1) homogenous product -- all firms sell an identical product; 2) all firms are

price takers; 3) perfect information -- buyers know the nature of the product being sold and the prices charged by each firm -- exists; 4) there is freedom of entry and exit to the market; and, 5) all firms are profit maximizers where price is set at marginal cost and marginal cost is equal to marginal revenue.[1] In actuality there are very few markets where perfect competition exists, as there is often product differentiation; barriers to entry; imperfect information; and, in some cases there is evidence of market power where a firm is able to charge a price that is greater than its marginal cost. In the case of the commodity natural gas, there is a very competitive wholesale market where prices are established in an open marketplace. Prices are a function of demand and supply, where high demand and limited supply lead to higher prices, and in periods such as today, moderate demand and ample supply are indicative of lower prices.

Q. PLEASE DEFINE EFFECTIVE COMPETITION.

A. "Effective competition" is not a recognized term in the field of economics. There is perfect competition, monopolistic competition, oligopolistic competition, and other forms of imperfect competition. The concept of effective competition in Ohio is set forth at Revised Code Section 4929.02(A)(8) where it states that it is the policy of the state to "[p]romote effective competition in the provision of natural gas services

[1] Nicholson, Walter., *Microeconomic Theory Basic Principles and Extensions, 7th Edition*; Fort

and goods by avoiding subsidies flowing to or from regulated natural gas services and goods". There are commonly accepted definitions of competition, but the concept of "effective competition" as set forth at Section 4929.02(A)(8), Revised Code, is not a standard economic concept.

Q. PLEASE DEFINE WILLING BUYERS AND WILLING SELLERS.

A. Again, this is a concept set forth at Ohio Revised Code Section 4929.02(A), here at (A)(7), but it is a standard economic concept. Willing buyers and sellers are any parties that are willing and able to engage in a transaction for goods or services. This engagement is voluntary, where neither party is being forced to take an action. Both parties are considered rational participants, where a buyer is seeking the lowest price or certain terms or certain conditions for ownership of a good or service being offered. The seller is seeking to sell its product or service at the highest price. Buyers and sellers are able to negotiate what they are able to accept in exchange for their good or service; this exchange can be facilitated by exchanges, such as the NYMEX.

Q. IS THE NEW YORK MERCANTILE EXCHANGE, ALSO KNOWN AS THE NYMEX, A COMPETITIVE MARKET?

Worth [etc]: The Dryden Press. (1998),

A. No. The NYMEX is not a market; it is an exchange that operates various competitive commodity markets, such as heating oil, natural gas, electricity, etc. The NYMEX is a commodities futures exchange, it is a marketplace where buyers and sellers come together and buy and sell their commodities in a transparent marketplace with clearly defined rules and oversight by the Commodities Futures Trading Commission (CFTC). The NYMEX provides both options and futures trading opportunities for various energy commodities, including natural gas. The competitiveness of the market is in fact dependent on the market itself, and the natural gas market is considered competitive. There is equal opportunity for participation as each market is standardized in terms of the product being represented, conditions for entry, rules for purchasing and selling, and terms and conditions.

Q. DOES A WHOLESALE AUCTION, SUCH AS THE AUCTION UTILIZED TO ESTABLISH A STANDARD SERVICE OFFER, AS THE TERM HAS BEEN USED IN OHIO'S UTILITY REGULATORY FRAMEWORK, ENABLE A COMPETITIVE METHOD OF PROCURING NATURAL GAS SUPPLY?

A. Yes.

Q DOES A RETAIL AUCTION, SUCH AS THE AUCTION UTILIZED TO ESTABLISH THE STANDARD CHOICE OFFER ("SCO"), AS IS CURRENTLY PROVIDED BY COLUMBIA, ENABLE A COMPETITIVE METHOD OF PROCUREING NATURAL GAS SUPPLY?

A. Yes.

Q. WHAT BENEFITS DOES AN AUCTION PROCESS PROVIDE TO COMPETITIVE RETAIL NATURAL GAS SUPPLIERS ("CRNGS" OR "MARKETERS") AND CUSTOMERS?

A. The auction process provides one route for CRNGS to enter the Ohio market. The auction process obviates the need for spending on customer acquisition marketing efforts. The price resulting from the auction is established through a defined process that is transparent. The auction establishes a price equivalent to marginal cost to provide the natural gas commodity within the context of the rules of the auction which are based on dividing the load to be auctioned into tranches and reducing the price until there are only enough offers to serve the required load. The numbers of tranches that can be obtained by an individual bidder are limited. A declining clock auction is a market-based approach to setting a price that closely resembles perfect competition.

Q, DO AUCTION PROCESSES SUPPORT THE GOALS OF THE STATE?

A. Yes, auction processes support the goals of the state as set forth in Section 4929.02(A), Revised Code. Columbia also agrees that the SSO and SCO "fulfill the State Policy as to natural gas and natural gas service as established in Section 4929.02 Revised Code."[2] In my opinion, these supported goals, by subsection, are:

> (1) Promote the availability to consumers of adequate, reliable, and reasonably priced natural gas service;
> (2) Promote the availability of…natural gas services and goods that provide…consumers with the supplier, price, terms, [and] conditions they elect to meet their respective needs;
> (3) Promote diversity of natural gas supplies and suppliers, by giving consumers effective choices over the selection of those supplies and suppliers;
> (4) Encourage innovation and market access for cost-effective supply- and demand-side natural gas services and goods;
> (6) Recognize the continuing emergence of competitive natural gas markets through the development and implementation of flexible regulatory treatment;
> (7) Promote an expeditious transition to the provision of natural gas services and goods in a manner that achieves effective competition and transactions between willing buyers and willing sellers to reduce or eliminate the need for regulation of natural gas services and goods under Chapters 4905. and 4909. of the Revised Code;
> (11) Facilitate additional choices for the supply of natural gas for residential consumers, including aggregation….

Q. CAN YOU ADDRESS EACH OF THESE GOALS AND EXPLAIN HOW USING AN AUCTION PROCESS IN CONJUNCTION WITH

[2] Case No. 08-1344-GA-EXM, Revised Program Outline, April 15, 2011, at 7, as approved by the Public Utilities Commission of Ohio in the Second Opinion and Order, September 9, 2011

GOVERNMENT AGGREGATIONS AND BILATERAL CONTRACTS EFFECTUATES STATE POLICY?

A. Based on my expertise in economics, it is clear that the presence of the auction process along with the other supply options meets the policy of the state. Auctions produce reasonable prices that are a result of a competitive process, under a standardized set of terms and conditions which are readily understandable by suppliers, and, generally yield the lowest prices in the market. As currently crafted, the auctions promote diversity of suppliers by allowing a CRNGS to obtain a relatively large number of customers without having to absorb customer acquisition costs though the fee proposed on SCO suppliers will hinder ease of entry. Auctions, like governmental aggregations, are innovative – few other jurisdictions to my knowledge have embraced these approaches – and there is little doubt that they produce cost-effective supply options. Auctions are clearly an effective way to harness competition in natural gas markets. The auctions obviate the need for regulation since they establish prices through a purely competitive process. Those served through SCO service are clearly willing buyers; they have other options available and have chosen to receive SCO service. And, auctions add to the choices available to customers. SCO auctions set a price to serve what is essentially an aggregation, a set of customers that have opted not to be served through a bilateral contract or governmental aggregation, or do not

live in an area where a governmental aggregation has been created. From an economic perspective, using an SCO auction process to provide service to a large number of consumers is consistent with state policy.

Q. IS THE PRICE ESTABLISHED BY A STANDARD CHOICE OFFER AUCTION REGULATED BY THE PUBLIC UTILITIES COMMISSION?

A. No. The Commission merely certifies that the auction has been conducted in a fair manner.

Q HAS THE COMMISSION ENDORSED THE AUCTION PROCESS?

A. Yes. At the close of Dominion East Ohio's 2011 SCO Auction, PUCO Chairman Todd A. Snitchler stated, "The auction process has again yielded positive results for Dominion East Ohio customers…. [t]he market continues to provide a competitive commodity price for natural gas."[3]

Q. PLEASE DESCRIBE THE PRICE, TERMS, CONDITIONS, AND QUALITY OPTIONS CURRENTLY AVAILABLE TO CUSTOMERS IN OHIO'S COMPETITIVE NATURAL GAS MARKETS.

A. A number of competitive approaches are utilized to establish prices paid by choice-eligible customers. First, some price offers are established by Competitive Retail Natural Gas Suppliers (CRNGS). These price offers,

based on a review of the Public Utility Commission of Ohio's (PUCO) 'Apples to Apples' chart are as follows: 1) variable rates, which can be adjusted monthly and are available on a month-by-month basis or over a term; 2) variable rates with a cap, which are also generally adjusted monthly with upward adjustments limited by the price cap, and available on a month-by-month or over a fixed term; and, 3) and, fixed rate contracts available over a fixed term, generally one year though some are for shorter or longer terms. Prices offered by CRNGS are only available to choice-eligible customers, customers that are current on their bills and are not Percentage of Income Payment Plan ("PIPP") customers. All contracts have conditions. Some contracts have provisions that allow for the fixed rate to be changed at some point in the life of the contract, and all contracts have varying termination conditions. Some contracts have no termination fee so customers can decide monthly whether or not to continue to receive service under the contract. At the other end of the continuum, the termination fee can be several hundred dollars. Often the magnitude of the termination fee is dependent on the level of risk the supplier is facing in serving the terms and conditions of the contract. Fixed price contracts have inherently more risk than month to month contracts. There is also a condition that is applied to all contracts: customers must be choice-eligible to access these contracts. Not all

[3] http://www.puco.ohio.gov/puco/index.cfm/media-room/media-releases/puco-approves-results-of-

products that CRNGS offer are posted on the PUCO's Apples-to-Apples chart. Additional pricing products, based on volumetric swings, conversions or triggers, and utilization of caps and collars are also available. These products are designed for the more sophisticated purchaser, and typically associated with larger contract volumes.

A second approach to establish rates, terms, and conditions is provided through a governmental aggregation. These aggregations can be opt-out or opt-in. Rates are established by either soliciting bids or through an auction. The rates can be variable or fixed, with governmental aggregations sometimes offering both options. Customers are enrolled with the winning CRNGS for a fixed term, generally one or two years. In some cases, the fixed rates can change annually during the term of the contract to reflect price changes in the wholesale market. Again, these rates are only available to choice-eligible customers.

The third competitive option available to customers is the Standard Choice Offer ("SCO"). The price is established through an auction held by the natural gas utility to serve a group of customers, specifically choice-eligible customers that are not being served through bilateral contracts or governmental aggregations. Customers in this aggregation are assigned

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dominion-natural-gas-supply-auctions/

to one of the marketers that are successful bidders in the auction. All customers enrolled as SCO customers pay the same price, regardless of marketer assignment. In addition, residential and commercial customers that come to the end of a contract term and do not select a new supplier move to the aggregation that is served at the price established by the SCO auction. A significant number of commercial customers, 52% in October 2012, currently choose to be served through this option. EXHIBIT SH-2. This process is defined in the Second Revised Columbia Program Outline, Sec. 2 at Page 8.[4]

A fourth competitive option in Columbia's service area is Default Sales Service ("DSS"). The availability of this competitive option is limited to Percentage of Income Payment Plan ("PIPP") customers; customers that are not choice-eligible; and, transitional customers -- customers that are choice-eligible but are not participating in a governmental aggregation and have not yet been assigned to an SCO supplier or signed a bilateral contract with a marketer. DSS commodity supply is provided by SCO suppliers on a proportional basis at the price determined by the SCO auction.

[4] Case No. 08-1344-GA-EXM, Revised Program Outline (April 15, 2011) at 7; and, Case No. 12-2637-GA-EXM, Second Revised Program Outline and Revised Tariffs (November 28, 2012) at 8.

Another option that would substitute for the SCO option if the Commission should approve the stipulation attached to the Joint Motion and if the number of shopping commercial customers meets the 70% threshold in the manner described in the stipulation is the assignment to monthly variable rate ("MVR") suppliers. This is the service provided to choice-eligible customers when their contract with a CRNGS expires and they do not sign a new contract or to former transitional customers that do not choose a bilateral contract with a marketer. The customer is assigned to a CRNGS which has chosen to participate in the MVR. The price the customer pays is the variable rate offered by the CRNGS that is published on the 'Apples to Apples' list maintained by the PUCO.

Q. IS THE MVR, TO WHICH COLUMBIA INTENDS TO ASSIGN CHOICE-ELIGIBLE CUSTOMERS THAT ARE CURRENTLY ON THE STANDARD CHOICE OFFER ("SC0"), A CONTRACT BETWEEN WILLING BUYERS AND SELLERS WITHIN THE MEANING OF SEC. 4929(A)(7) ?

A. No. The contract is not a voluntary arrangement because the customer is assigned to the supplier without the customer's consent. There is no negotiation between the buyer and seller; the price established by the contract is determined solely by the seller. Though the MVR rates are published, the buyer is not even aware of the price because he does not know which MVR supplier he will be assigned to.

Q. ARE THERE ANY OTHER NATURAL GAS SUPPLY CONTRACTS AVAILABLE TO RESIDENTIAL CUSTOMERS?

A. Residential customers have the choice of fixed price contracts in varying terms of duration or monthly variable contracts. At this point, there are no contracts on the Apples to Apples chart that offer any other terms, such as providing energy efficiency services. Time-of-use prices are not used in natural gas because pricing of natural gas does not vary hourly as wholesale electric rates do, in part because gas can be stored, hourly price movements of natural gas are not similar to electric. Smart meters are not relevant to natural gas contracts. Columbia has implemented electronic meters but they utilize one-way communications and are used only to read the meter to establish monthly usage amounts which determine the price of the commodity portion of the bill paid by the consumer, either directly to the CRNGS or to the natural gas utility when there is a purchase of receivables agreement between Columbia and the CRNGS.

Q. IS THERE ANY VARIATION IN THE QUALITY OF NATURAL GAS PROVIDED THROUGH NATURAL GAS CONTRACTS?

A. No. Natural gas utilities require the natural gas that flows through their systems to meet certain standards. There can be no difference in the quality of gas flowed through the system.

Q. HOW WILL ELIMINATION OF THE SCO OPTION AFFECT THE PRICE PAID BY COMMERCIAL AND RESIDENTIAL CUSTOMERS?

A. Generally, customers will see price increases. Customers formerly on the SCO will be reassigned from the marketers currently serving them to marketers that are willing to accept customers through the MVR process described above. This means that the customers will be served at the lowest variable rate the CRNGS has chosen to offer and posted on the Apples to Apples list maintained by the PUCO. I have analyzed the SCO service prices provided by Columbia suppliers between December 7, 2012 and October 2, 2012. The analysis as attached as Exhibit SH-3.

As the Exhibit indicates, the SSO and subsequently the SCO is typically a lower price than offerings from CRNGS featuring similar terms and conditions. Exhibit SH-4 shows that fixed price CRNGS offers are consistently higher than the SSO and SCO.

Q. HOW MANY CHOICE APPROVED PROVIDERS TYPICALLY POST FIXED AND VARIABLE PRICE CONTRACTS?

A. The average of posted fixed rate offers from Choice approved providers is 10 to 11. The typical number of providers posting variable rate offers is 5 to 6. Exhibit SH-5.

Q. WHY ARE SCO PRICES LOWER THAN CRNGS DIRECT OFFERS?

The lower price is the result of the auction process. In a descending clock auction, as used by Columbia and some other Ohio natural gas utilities, the load is divided into equally sized groups referred to as tranches. CRNGS that are participating in the auction agree to serve customers at the monthly NYMEX closing price -- a price established using competitive forces -- plus a retail price adjustment. It is the retail price adjustment that is determined through the auction. The auction begins with the retail price adjustment set at a certain level which is gradually lowered until there are not enough CRNGS bids to serve all the tranches. The price is ultimately set at the level where the number of bids match the number of tranches. All winning bidders are paid the same amount for providing SCO and DSS service.

The SCO auction price effectively acts as a benchmark price, the minimum price at which providers are generally willing to supply service. There is little incentive for CRNGS providers to provide a price much lower than this as CRNGS are profit maximizers. Without this transparent

"benchmark" established competitively, there is a reduction in the efficiency of the competitive market.

The CRNGS contracts that are offered on the Apples to Apples chart and other offers that are not listed are generally going to be higher priced than the SCO for a number of reasons. First, the auction approach drives down prices because marketers must directly compete with other marketers to provide SCO service. Second, there is no customer acquisition cost for marketers in the SCO process, so there is no need to build these costs into the bids. The same is basically true for governmental aggregations; while CRNGS bidding on these aggregations do incur some costs such as mailing opt-out postcards to customers, marketers acquire customers without incurring substantial marketing costs. Customer acquisition is one of the most significant costs CRNGS incur. Third, there are economies of scale resulting from the size of the aggregated customer load obtained through the SCO auction. And, fourth, the SCO auctions are particularly attractive to CRNGS that are also natural gas producers. The amount of natural gas in storage has been at historic highs for some time. A producer only makes money by selling natural gas. The size of the tranches in an SCO auction makes for an attractive aggregation for producers seeking customers for natural gas in a

market where there is excess supply. Exhibit SH-6. Even if the supply situation were to change, which is unlikely given the Marcellus and Utica plays, the other features of the auction would continue to provide customers with prices lower than those offered by marketers through bilateral contracts.

Q. ARE CRNGS ABLE TO COMPETE WITH THE SCO?

A. Few compete with the SCO on price alone. Exhibits SH--3 and SH-4, clearly demonstrate that with few exceptions SCO rates are lower than published rates with comparable terms and conditions. Shadow billing data provided by Columbia in response to the Ohio Consumers' Counsel's Request for Production Number 65, attached as Exhibit SH-7 indicates that since the SCO was implemented in April 2012, customers served through bilateral contracts or through governmental aggregations have paid $37,200,878 more for natural gas than SCO customers; a significant amount given that it does not include any of the winter heating months during which the typical customer uses the vast majority of the gas consumed annually. Nonetheless, CRNGS are clearly able to compete with the SCO service by offering other terms and conditions as discussed previously.

CRNGS currently serve 26% of the industrial market, 52% of the commercial market and 41% of the residential market, either through direct contracts with customers or governmental aggregations. See Exhibit SH-2. It is interesting that those least likely to take service from CRNGS are industrial customers, which are generally viewed as the most sophisticated customers.

CRNGS have achieved inroads into the market, capturing large numbers of customers, despite that fact that since November, 2006, their customers have paid $861,175,104 more for natural gas. Exhibit SH-7

Many customers prefer fixed price contracts. Those are available through CRNGS. Long-term contracts are available through CRNGS. Variable rates with a cap are available through CRNGS. Theoretically, other types of contracts such as a guaranteed bill option or a price coupled with weatherization services, the cost of which is recovered through the rate, could be provided by CRNGS, just to mention two options. The fact that it is very difficult for CRNGS to compete with the SCO on price stimulates creativity in product offering and marketing techniques that maximizes competitive options available to customers, enhancing the competitive options available to customers consistent with the policy of the state.

The methods of establishing prices prior to the SCO auctions had features that made comparisons between the default rates offered by utilities, bilateral contracts, and governmental aggregations difficult. Now that subsidized default service has been eliminated and replaced by a retail competitive option with the price established through a competitive auction, the evolution to market-based pricing is complete and customers can obtain the price, terms, and conditions that they choose in a competitive marketplace. The SCO provided by marketers through an auction is, in the aggregate, superior for customers in pure price terms to non-auction based pricing. However, marketers can overcome the competitive auction price by offering customers other options that some customers prefer. Competition has been achieved in Ohio, consistent with the goals established by the General Assembly.

Q BASED ON YOUR ANALYSIS OF THE DATA AND YOUR EXPERIENCE IN WORKING WITH MARKETERS, IS IT LIKELY THAT MARKETERS WILL OFFER PRICES AS LOW AS THOSE PRODUCED BY THE SSO AND SCO AUCTIONS?

A. It is unlikely. As noted above, marketers are profit maximizers. The SCO, for the reasons stated above, is a market approach that drives prices down to the lowest price level that an adequate number of CRNGS are willing to offer commodity service determined through direct competition

among those providers. Furthermore, customer acquisition costs and the economies of scale resulting from the size of the SCO aggregation assist in reducing the cost of providing service.

It does not make sense that marketers would offer into the auction at a price that is lower than their cost to supply. However, in the absence of an auction process with capped market share, marketers are more likely to engage in predatory pricing tactics, pricing below cost in order to force other firms out of the market. Long-term pricing at this lower level cannot be sustained because the marketer is actually providing supply at a net-loss. Only marketers that have larger cash reserves or credit, or can obtain supplies at a cost lower than other market participants, will be able to undercut the rest of the competition. This is obviously a big concern when we take into account the large market share concentrated in a very few marketers.

Q. DOES OHIO LAW SPECIFY THAT THE END GOAL OF THE TRANSITION TO COMPETITIVE MARKETS IS TO LIMIT COMPETITION TO DIRECT CONTRACTS BETWEEN CRNGS AND CUSTOMERS, GOVERNMENTAL AGGREGATIONS, AND ASSIGNMENT OF CUSTOMERS TO MARKETERS VIA AN MVR PROCESS?

A. There is no mention in the Ohio statute of a preference for bilateral contracts between customers and CRNGS providers over other competitive options. Ohio Revised Code Section 4929.02(A)(8) specifically seeks to "[p]romote effective competition in the provision of natural gas services and goods by avoiding subsidies flowing to or from regulated natural gas services and goods." The "subsidy" provided to the SCO that is alluded to in filed testimony by Columbia, RESA and OGMG is the cost of the auction, a mere $70,000 for the most recent SCO auction. Exhibit SH- 8. Because the auction provides a benefit by providing a price benchmark that benefits all customers and SCO service is available to all customers, it makes sense to spread the cost of the auction among all customers. On the other hand, the cost of the SSO auction could be incorporated into the SCO rate. That would embed the costs of providing SCO service within the SCO rate much as marketers must embed the cost of marketing into the rates they offer to customers bilaterally.

Q. ARE THERE EXPERIENCES WHERE SUPPLY OPTIONS HAVE BEEN LIMITED TO BILATERAL CONTRACTS WITH MARKETERS?

Yes. Atlanta Gas and Light ("AGL") shifted all customers to bilateral contracts in October 1999.[5] In 1999 when the Georgia exit occurred, residential customers of AGL were paying approximately the United

States national average price for natural gas. Since the AGL exit occurred, between the years 2000 – 2011, AGL customers have been paying a price higher than the U.S. national average. Exhibit SH-9 provides data from the U.S. Energy Information Administration ("EIA") indicating the U.S., Ohio and Georgia annual residential prices before and after the deregulation in Georgia. Exhibit SH-10 compares Georgia distribution utilities' residential offers with Georgia choice suppliers' residential offers, and shows the suppliers' offers are consistently higher than the prices available from other Georgia utilities that do not have competitive markets. Ken Costello's 2011 customer choice analysis and the conclusions of the Georgia Blue Ribbon Natural Gas Task Force both support these conclusions.[6] Both the Columbia and AGL markets demonstrate a high level of market concentration, with five marketers controlling over 80% of the market.[7] Exhibit SH-2.

The conclusion I draw from this data and these analyses is that limiting the competitive options available to consumers to bilateral contracts between

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[5] Ken Costello, Senior Institute Economist, The National Regulatory Research Institute, "The Competitiveness of the Georgia Deregulated Gas Market", January 2002, Rev. June 2002, at 1.
[6] Blue Ribbon Natural Gas Task Force, *Final Report to Governor Roy E. Barnes and General Assembly of the State of Georgia,* February 2002 at http://www.psc.state.ga.us/gas/ngdereg/taskforce.pdf; Ken Costello, Principal, National Regulatory Research Institute, Working Paper, *Gas Choice: Do Customers Benefit*, July 2011 at http://www.nrri.org/web/guest/home?p_auth=3AQBHmPR&p_p_auth=6jXE8JlI&p_p_id=20&p_p_lifecycle=1&p_p_state=exclusive&p_p_mode=view&_20_struts_action=%2Fdocument_library%2Fget_file&_20_groupId=317330&_20_folderId=0&_20_name=5666
[7] Id.

customers and suppliers produces prices that are higher than prices established through market processes based on an auction. In Ohio, a variety of competitive options -- bilateral contracts, governmental aggregations, and the SCO – should be available to customers to overcome the problematic aspects identified in choice markets.

Q.. ARE THE ALLOCATION METHODOLOGIES PROPOSED BY DIRECT ENERGY AND IGS THAT WOULD AWARD MVR CUSTOMERS BASED ON THE PERCENTAGE SHARE OF CUSTOMERS OF INDIVIDUAL MARKETERS CONSISTENT WITH PROMOTING A COMPETITIVE MARKET?

A. No. They promote the status quo of suppliers and establish a barrier to market entry for other suppliers. The allocation mechanism has not received adequate deliberation and should be settled in a separate case if the SCO service is eliminated. The current process established in the SCO is an effective mechanism to assign retail energy suppliers to customers. Abandoning rotational allocation presents significant issues of management/program administration, as well as poses potential equity issues to the approved suppliers. Currently, one supplier serves 38% of non-SCO customers, SH-2. The proposed allocation process as put forth by Direct Energy and IGS retain the status quo for the larger suppliers and make it more difficult for the smaller suppliers trying to participate in the

Columbia market. According to Columbia's own monthly reports, 5 marketers supply 85% of the choice market. Exhibit SH—2

Q. THE STIPULATION AND THE REVISED PROGRAM OUTLINE WOULD REQUIRE SCO SUPPLIERS TO PROVIDE A $0.06/MCF CHARGE BASED ON THE PROJECTED ANNUAL USAGE OF THE CUSTOMERS SERVED BY THE SUPPLIER. DO YOU BELIEVE THIS CHARGE IS JUSTIFIED?

A. No. SCO providers are certified CRNGS providers that have met the standards established by the Commission to serve retail customers. SCO providers are also CRNGS serving Columbia customers and have met the credit standards established by Columbia's tariffs as approved by the Commission. SCO providers also are secured against the defaults of other SCO suppliers, no different than the defaults of suppliers serving customers through bilateral contracts or governmental aggregations. For credit purposes, there is no difference between serving an aggregated SCO load, a governmental aggregation, or a group of customers served through bilateral contracts.

Moreover, SCO suppliers are providing a monthly commodity price that is based on a month-to-month contract set by the NYMEX. This results in minimal risk to the SCO supplier. The SCO supplier need not hedge

supplies or purchase for months beyond the delivery month. Suppliers offering fixed price contracts face a greater financial risk as they must cover their positions for the duration of the contract period. This is not the case of the monthly SCO process.

Should an SCO supplier default, the remaining SCO suppliers are required to provide service to the customers of the defaulting SCO supplier. SCO suppliers are currently secured against the costs of serving customers should an SCO supplier default through letters of credit. I am not aware that there has ever been an SCO supplier default. There is no evidence presented in this case to substantiate the contention that the cost of a supplier default would exceed the surety provided through the letters of credit.

According to the most recent information provided by Columbia, the Natural Gas Customer Choice Program Data for October 2012, there are 834,548 SCO and DSS customers. The average tranche size is 52,159 customers. An SCO supplier can serve up to 4 tranches, or a total of 208,636 customers. Currently, one marketer serves roughly this many customers through bilateral contracts and governmental aggregations. This same marketer served a load totaling 771,729 Mcf during October 2012, while an SCO provider serving a maximum of four tranches supplied

on average 632,932 Mcf. Exhibit SH-2. This indicates there is little difference between CRNGS serving SCO load and CRNGS serving non-SCO customers. Exhibit SH-2.

Adding an additional upfront cost to the service provided by SCO suppliers constructs an additional barrier to entry for CRNGS that prefer to acquire customers through the SCO process, especially one that is an upfront cash payment which will disproportionally affect smaller companies that may not have the cash available. It also discriminates between SCO suppliers and other CRNGS by subjecting SCO suppliers to an additional charge that will not be paid by other suppliers. One of the virtues of the current competitive structure is that there are no significant differences between the SCO suppliers and other suppliers in terms of credit requirements. The newly proposed $0.06/Mcf charge will eliminate the level playing field among all supply options.

Ultimately, there is little doubt that should Columbia incur costs associated with a supplier default, it could file with the Commission to recover those costs in an equitable manner through Columbia's Choice/SCO Reconciliation Rider ("CSRR") as already provided for in the Second Revised Program Outline. The proposed $0.06/MCF charge is unnecessary and duplicative.

Q. COLUMBIA CLAIMS THAT CUSTOMERS WILL BENEFIT FROM THE NEW CHARGE BECAUSE ANY PORTION OF THE CHARGE THAT IS NOT NEEDED TO COMPENSATE COLUMBIA FOR COSTS CAUSED BY A SUPPLIER DEFAULT WILL BE APPLIED TO THE CHOICE/SCO RECONCILIATION RIDER ("CSRR"). DO YOU AGREE THIS IS ADVANTAGEOUS TO CUSTOMERS?

A. No. All customers currently pay the CSRR. Only SCO customers will pay the new charge through the SCO rate. This will raise the SCO rate, and shift the costs to SCO customers. This provides a subsidy to bilateral contracts and contracts established through governmental aggregations.

Q. DOES THIS CONCLUDE YOUR TESTIMONY

A. Yes.

EXHIBIT SH-1

Stacia J. Harper

2379 Sonnington Dr *Tel: (614) 282-5260*
Dublin, OH 43016 *stacia.harper@gmail.com*

Summary of Qualifications:
Energy Economist and policy expert with specialized experience in the following fields:

Long-Term Planning	**Wholesale Markets**	**Technologies**
Integrated Resource Planning	Resource adequacy/RPM	Geothermal
Non-Transmission Alternatives	RTO/Stakeholder Governance	Solar
Portfolio Optimization	Demand Side Management	Wind
Transmission Expansion	Price Responsive Demand	Combined Heat and Storage
Alternative/Renewable Energy	Transmission Cost Allocation	Biofuels
Cap and Trade	Retail and LMP Pricing	Smart Grid
SmartGrid/AMI	Auction Design	Energy Storage

Over 15 years of increasingly responsible experience in the energy profession applying a unique understanding of resource and energy economics, engineering, and public policy to design and implement long term sustainable energy policies. Recognized expert at PJM in wholesale market design, including capacity markets, regional planning, PRD, DR, and retail/wholesale gap. National recognition for SmartGrid/AMI, dynamic rate design. Specialized experience with GIS/spatial analysis for long-term planning. Experience at FERC, DOE, EIA, NERC, state Commissions, PIOs/NGOs, RTOs, deregulated and regulated utilities. Effective at facilitating and managing coalitions.

Professional Experience

Ohio Partners for Affordable Energy– Columbus, Ohio 2010 - Present
Director Regulatory Affairs and Energy Policy

- Develop, coordinate, and manage alternative energy projects for community energy development working with utilities, industrials, community action agencies, federal funding partners
- Represent low income consumers interests in all related electric utility cases in Ohio
- Advocate at PJM and FERC, member of Demand Response Coordinating Committee, SmartGrid Interoperability Committee, and NERC Planning Committee.
- Open markets in Ohio for competitive bid process in the procurement of energy (FE, Duke, AEP).
- Represent Ohio consumers PJM proceedings related to transmission planning, non-transmission alternatives, RPM reform

Office of the Ohio Consumers' Counsel – Columbus, Ohio
2008 - 2010
Senior Energy Policy Advisor

- Federal advocate for Ohio customers at PJM and FERC

- Responsible for saving customers $1billion in FirstEnergy by taking energy procurement to competitive bid process.
- Develop strategic alliances and collaborative efforts at state and national levels, and within PJM (NASUCA, PJM, MISO, OPSI, OMS, NARUC)
- Manage participation in regulatory proceedings including outside counsel and consultants
- Subject matter expert on, electric power industry restructuring and competitive market design long-term planning, including but not limited to: demand response/PRD, Transmission/NTAs planning, SmartGrid/AMI, climate change, and alternative/renewable energy, auction design

Direct Energy – Dublin, OH 2006 – 2008

Sr. Analyst Pricing and Portfolio Management

- Developed *Infinity* – first of it's kind billing system to accommodate real time billing, and purchase by loadshape.
- Gross margin management and product development of retail energy products for C&I customers
- Responsible for implementing market segmentation strategies
- Responsible for forecasting energy trends (commodity pricing, LMP, demand, supply, carbon legislation, emerging market opportunities)

American Electric Power Company – Columbus, OH 2004-2006

Associate Commercial Operations

- Hourly trader in ECAR/PJM
- Structured commodity pricing development for municipal and large industrials
- Experience with LMP pricing, capacity requirements, and ancillary charges
- Development of forecasts for weekly US gas storage injections
- Development of pricing models for both RT and DA power markets
- Provide market forecasts with day ahead and monthly traders

U.S. Department of Energy, National Energy Technology Laboratory/SAIC - Morgantown, WV 2001-2004

Economist / Project Manager

- Project Manager alternative fuels implementation program in association with USEPA Clean Cities and USAID
- Senior economic modeler for carbon trading strategies and national energy forecasting models
- Authored non-market valuation methodology techniques
- State inventory of carbon trading programs
- Social benefit analysis of Title IV of Clean Air Acts
- Assessment of natural gas infrastructure constraints
- Work directly with EIA in generating and updating energy market forecast

Organization Involvement

PJM/ Organization of PJM States (OPSI)

- Long-Term Capacity Evolution Advisory Committee
- Demand Response Task Force
- Markets and Reliability Committee
- Scarcity Pricing Working Group
- Market Implementation Committee
- Members Committee
- Governance Assessment Special Team

MISO/ Organization of MISO States (OMS)

- Demand Response Working Group
- Planning Committee
- Eastern Interconnection Planning Committee
- RECB Task Force
- EISPC

NASUCA/ FERC/NARUC/NIST/NERC

- Electricity Committee
- Transmission SubCommittee
- Smart Grid Task Force
- Smart Grid Clearinghouse
- SGIC Advisory Committee
- Electricity Sector Steering Group (ESSG)

Academic Experience

West Virginia University, Department of Resource and Environmental Economics (2005)

PhD candidate

- GIS/ArcView analysis of social/economic impact of Section 401 of the Federal Clean Water Act for coal producing regions
- GIS/ArcView feasibility study of fly-ash disposal in abandoned mine sites along the Allegheny River in the Northern Appalachian coal basin (Transmission Network Planning)

University of Alaska Fairbanks, Department of Resource and Applied Economics (2000)

M.S.

- Implementation assessment of PEM fuel cells for distributed power generation
- Cost benefit analysis of alternative fuel implementation for distributed generation
- Cost benefit analysis of Mackenzie Delta natural gas pipeline project

Ohio State University - Biochemistry (1991-1993)

- Ice core sampling of carbon deposition with Loni Thompson

West Virginia University - Political Science and Economics (1995) B.A.

EXHIBIT SH-2

Reporting Month: October 2012

Enrollment			
	Enrolled	**Eligible**	**% of Eligible**
Residential	492,716	1,207,242	41%
Commercial	54,965	106,136	52%
Industrial	289	1,101	26%
Total	547,970	1,314,479	42%

Choice Marketers: 23

	Number of Enrolled Customers & Market Share Ranking				Volumes (Mcf)			
Marketer	**Residential**	**Commercial**	**Industrial**	**Total**	**Residential**	**Commercial**	**Industrial**	**Total Mcf**
AZ	8,498	327	2	8,827	25,326	2,530	206	28,061
DA	107	2	0	109	258	12	0	270
ED	91,035	12,057	30	103,122	265,340	98,065	143	363,548
EI	5,532	68	10	5,610	15,755	487	315	16,556
EM	1,840	1,400	10	3,250	6,034	742	231	7,007
FN	524	25	0	549	1,475	750	0	2,225
GP	355	149	0	504	1,124	1,055	0	2,179
IB	3	153	4	160	7	23,394	271	23,671
IX	172	1,102	15	1,289	925	28,521	657	30,103
K	226	31	4	261	688	1,070	17	1,775
LI	17,897	3,553	33	21,483	52,850	63,263	2,359	118,472
MA	9	229	2	240	26	8,370	207	8,602
MO	1,776	313	2	2,091	5,025	3,684	22	8,731
QR	14,942	744	3	15,689	40,370	5,215	32	45,617
QQ	77	636	9	722	493	20,849	934	22,275
Q	186,121	15,064	78	201,263	541,555	222,369	7,805	771,729
RA	78,365	4,264	15	82,644	222,858	27,322	866	251,046
RV	0	14	1	15	0	626	142	768
TA	33,149	598	2	33,749	84,319	4,767	16	89,102
TZ	12,440	5,147	32	17,619	37,424	180,751	2,231	220,405
VA	35,694	8,451	36	44,181	110,635	100,650	1,392	212,676
X	1,500	503	1	2,004	4,144	9,407	1	13,552
YV	2,454	135	0	2,589	6,930	-446	0	6,484
Total	492,716	54,965	289	547,970	1,423,559	803,451	17,842	2,244,851

NOTE: All numbers above include Governmental Aggregation customers (details are listed below)

Includes Co-Ops served by Retail Natural Gas Suppliers

Governmental Aggregators	**# of Customers**
Canfield Township	398
City of Alliance	2,124
City of Bowling Green	2,846
City of Canfield	1,014
City of Clyde	412
City of Columbiana	601
City of Findley	5,529
City of Fostoria	704
City of Gallipolis	617
City of Marion	3,278
City of Mt Vernon	2,124
City of Pickerington	3,749
City of Rittman	415
City of Salem	1,473
Erie County	3,412
Fairfield Township	235
Stark County	1,230
St Clairsville	1,401
Village of Albany	166
Village of Barnesville	770
Village of Bethesda	144
Village of Bradner	19
Village of Brewster	215
Village of Bridgeport	435
Village of Cadiz	448
Village of Elmore	137
Village of Fredericktown	362
Village of Grafton	309
Villate of McConnesllisville	329
Village of Milan	145
Village of Navarre	169
Village of Pomeroy	202
Village of Warsaw	137
Village of Woodville	185
NOAC Communities	
City of Genoa	0
City of Martin	0
City of Maumee	3,522
City of Northwood	888
City of Oregon	2,302
City of Rossford	0
City of Sylvania	4,317
City of Toledo	33,014
Lake Township (Walbridge; Millbury; Perrys	5,674
Lucas County (Curtice)	31
Village of Holland	1,876
NOPEC	74,615
TOTAL	161,973

Columbia Gas of Ohio
STANDARD CHOICE OFFER (SCO) PROGRAM DATA

Date: November 13, 2012
Reporting Month: October 2012

SCO Rider: 4.5530

SCO Suppliers: 5

SCO Supplier Defaults: 0

Number of SCO Customers						SCO Volumes (Mcf)					
Residential	Commercial	Industrial	Other	Public Utility	Total	Residential*	Commercial	Industrial	Other	Public Utility	Total Mcf
640,643	43,837	304	0	0	684,784	1,599,844	400,983	49,077	0	0	2,049,904

Number of DSS Customers						DSS Volumes (Mcf)					
Residential*	Commercial	Industrial	Other	Public Utility	Total	Residential*	Commercial	Industrial	Other	Public Utility	Total Mcf
143,516	5,496	750	1	1	149,764	442,709	54,851	-27,348	0	11,611	481,823

* Residential DSS Includes 73,102 PIPP Customers & 284,246 Mcf PIPP Volumes.

	Tranche	Non Compliance		
Suppliers	Number	Volumes Dth		Dollars
IR	4	0		$0
IX	4	0		$0
NA	4	0		$0
Q	2	0		$0
VA	2	0		$0
Total	16	0		$0

Note: Includes Choice non compliance charges for Suppliers in both programs.

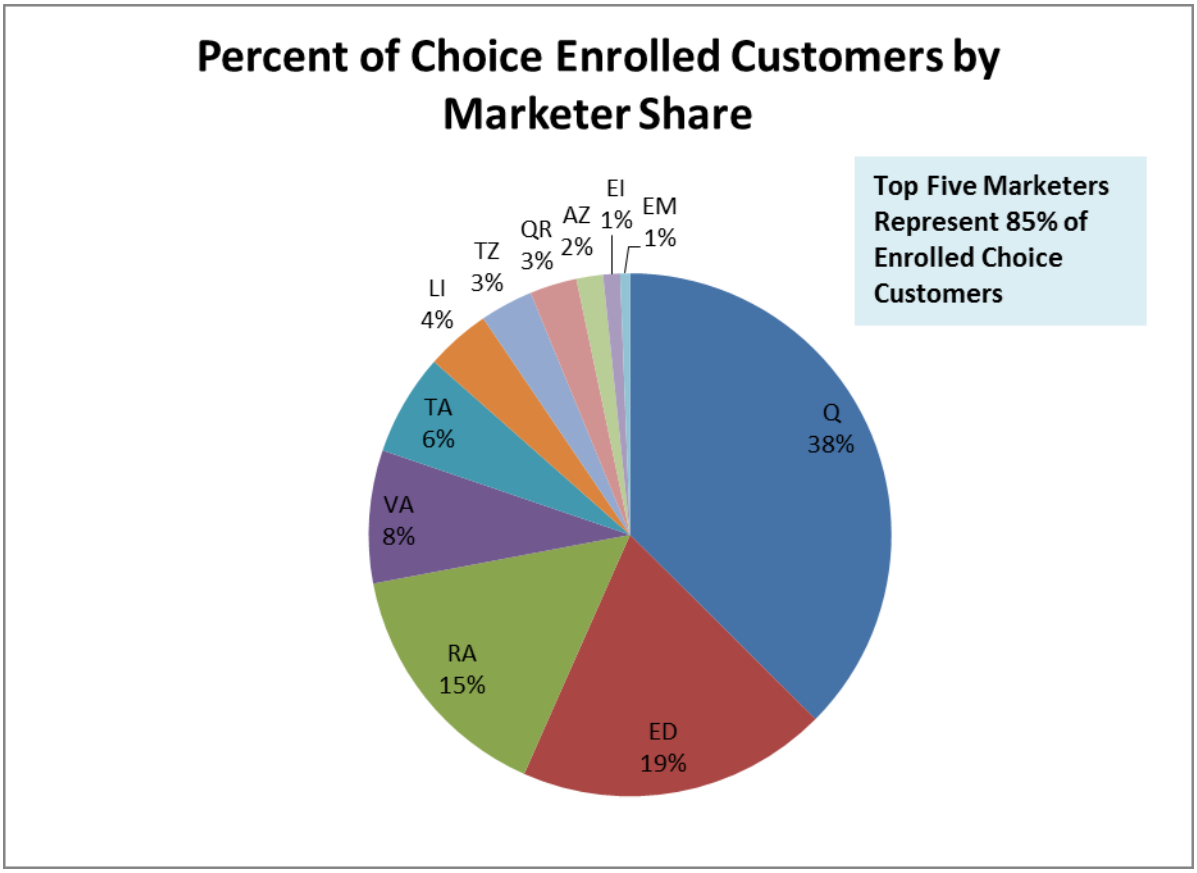

EXHIBIT SH-3

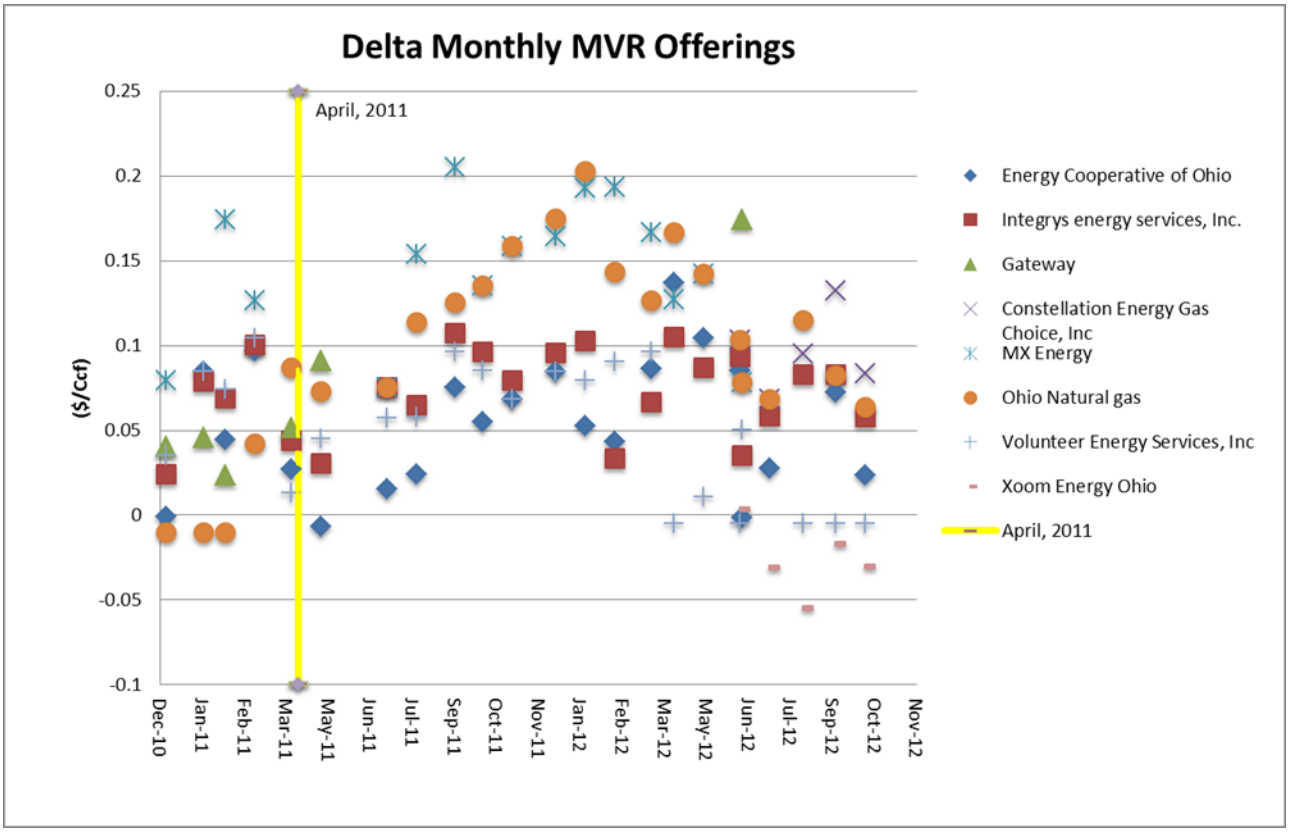
Delta Monthly MVR Offerings
($/Ccf)
0.25
0.2
0.15
0.1
0.05
0
-0.05
-0.1
April, 2011
Dec-10
Jan-11
Feb-11
Mar-11
May-11
Jun-11
Jul-11
Sep-11
Oct-11
Nov-11
Jan-12
Feb-12
Mar-12
May-12
Jun-12
Jul-12
Sep-12
Oct-12
Nov-12
Energy Cooperative of Ohio
Integrys energy services, Inc.
Gateway
Constellation Energy Gas Choice, Inc
MX Energy
Ohio Natural gas
Volunteer Energy Services, Inc
Xoom Energy Ohio
April, 2011

EXHIBIT SH-4

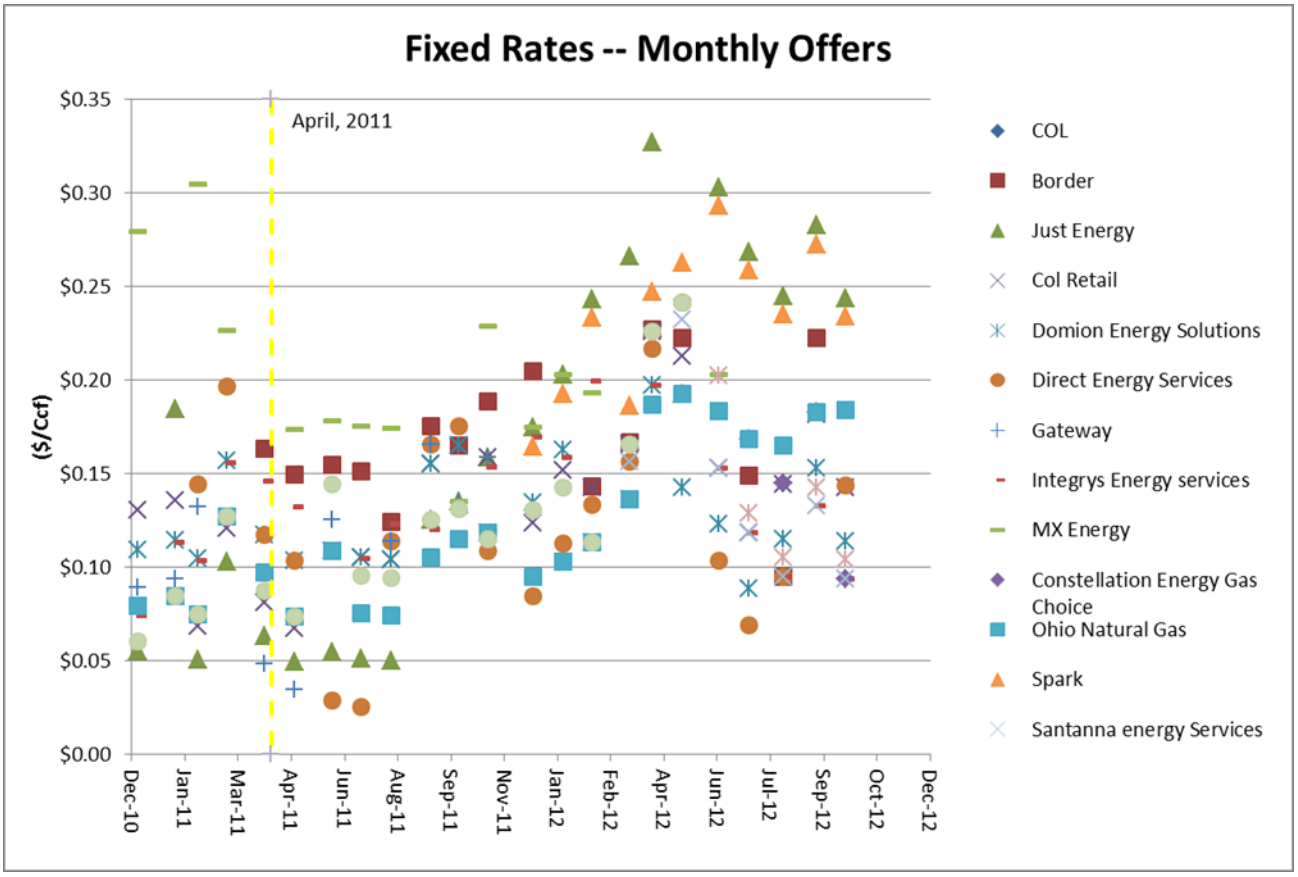
Fixed Rates -- Monthly Offers
April, 2011
($/Ccf)
$0.35
$0.30
$0.25
$0.20
$0.15
$0.10
$0.05
$0.00
Dec-10
Jan-11
Mar-11
Apr-11
Jun-11
Aug-11
Sep-11
Nov-11
Jan-12
Feb-12
Apr-12
Jun-12
Jul-12
Sep-12
Oct-12
Dec-12
COL
Border
Just Energy
Col Retail
Domion Energy Solutions
Direct Energy Services
Gateway
Integrys Energy services
MX Energy
Constellation Energy Gas Choice
Ohio Natural Gas
Spark
Santanna energy Services

EXHIBIT SH-5

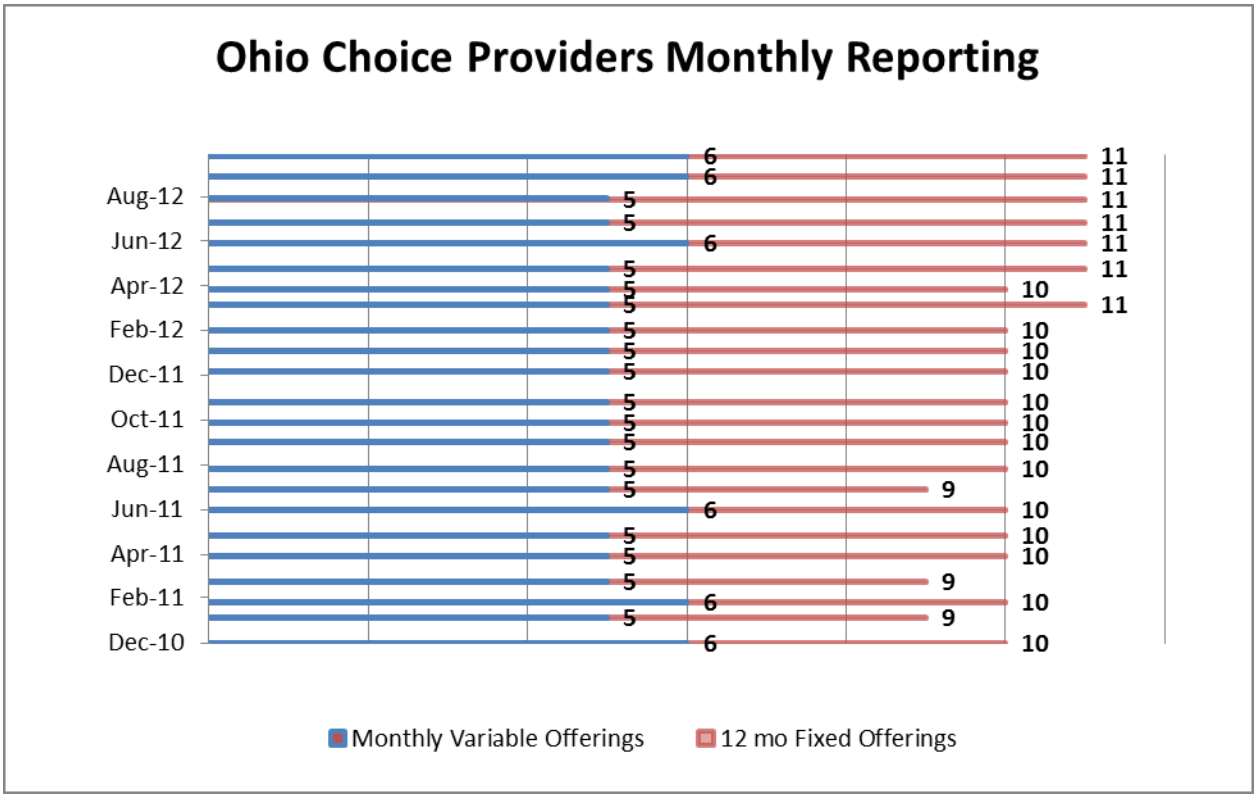
Ohio Choice Providers Monthly Reporting
Aug-12
Jun-12
Apr-12
Feb-12
Dec-11
Oct-11
Aug-11
Jun-11
Apr-11
Feb-11
Dec-10
Monthly Variable Offerings
12 mo Fixed Offerings

EXHIBIT SH-6

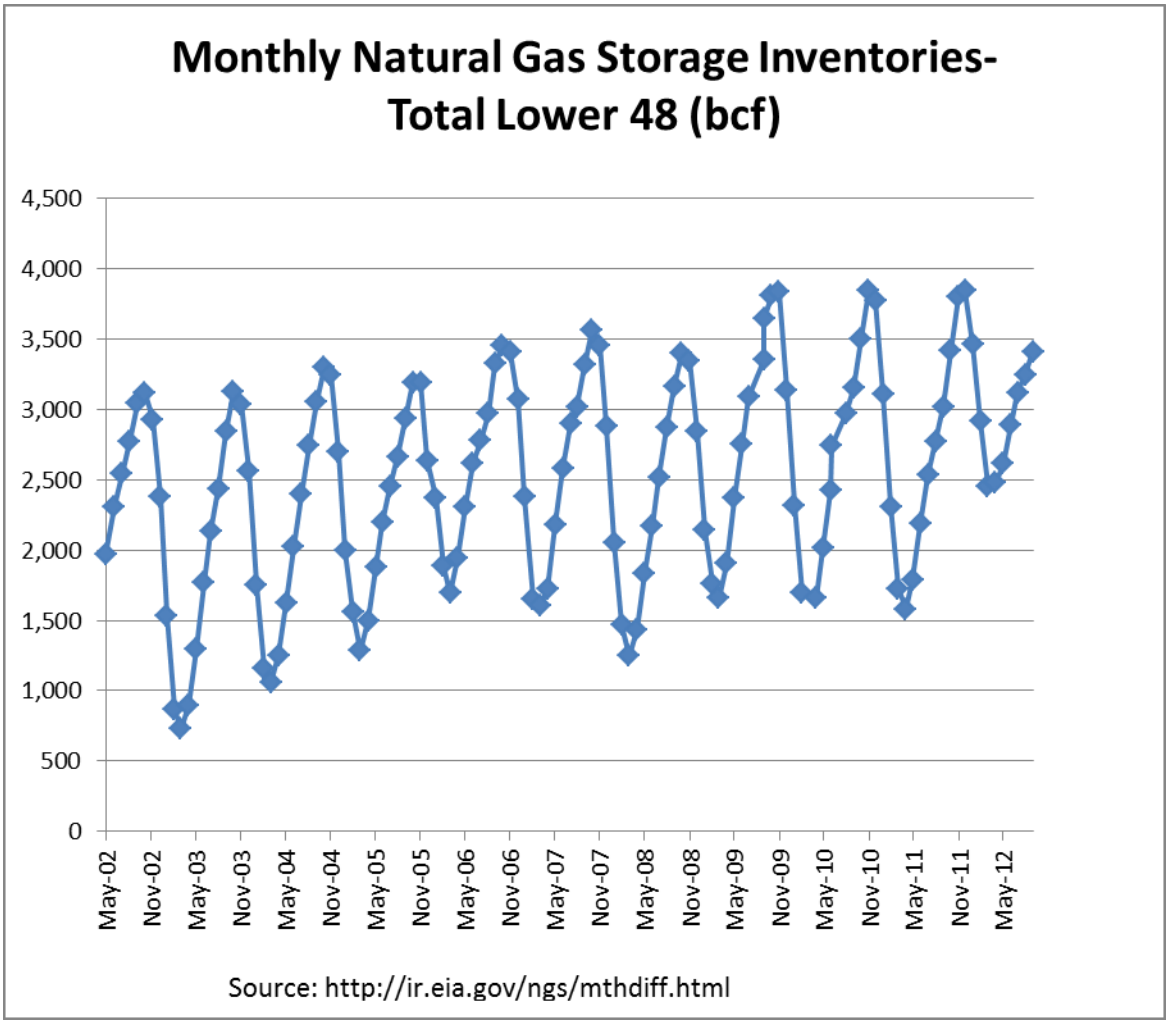
Monthly Natural Gas Storage Inventories-
Total Lower 48 (bcf)
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
May-02
Nov-02
May-03
Nov-03
May-04
Nov-04
May-05
Nov-05
May-06
Nov-06
May-07
Nov-07
May-08
Nov-08
May-09
Nov-09
May-10
Nov-10
May-11
Nov-11
May-12
Source: http://ir.eia.gov/ngs/mthdiff.html

EXHIBIT SH-7

SAVINGS SUMMARY WORKSHEET
ATTACHMENT A FOR PRODUCTION OF DOCUMENTS NO. 65

Month	Total Monthly Choice Savings	Monthly PIPP Savings	Cumulative Savings (Incl PIPP)	Cumulative Savings (Excl PIPP)
Apr-97	$468,626	$335,000	$803,626	$468,626
May-97	$382,061	$305,627	$1,491,314	$850,687
Jun-97	$223,485	$59,826	$1,774,625	$1,074,172
Jul-97	$106,537	$57,698	$1,938,860	$1,180,709
Aug-97	$87,780	$49,657	$2,076,297	$1,268,489
Sep-97	$96,045	$47,863	$2,220,205	$1,364,534
Oct-97	$141,746	$68,492	$2,430,443	$1,506,280
Nov-97	$434,702	$238,592	$3,103,737	$1,940,982
Dec-97	$703,257	$351,824	$4,158,818	$2,644,239
Jan-98	$1,088,035	$488,246	$5,735,099	$3,732,274
Feb-98	$836,928	$539,537	$7,111,564	$4,569,202
Mar-98	$709,949	$516,279	$8,337,792	$5,279,151
Apr-98	$543,516	$405,279	$9,286,587	$5,822,667
May-98	$418,261	$269,582	$9,974,430	$6,240,928
Jun-98	$218,940	$125,985	$10,319,355	$6,459,868
Jul-98	$108,418	$89,153	$10,516,926	$6,568,286
Aug-98	$95,803	$58,426	$10,671,155	$6,664,089
Sep-98	$100,121	$67,518	$10,838,794	$6,764,210
Oct-98	$278,132	$84,159	$11,201,085	$7,042,342
Nov-98	$1,246,551	$241,897	$12,689,533	$8,288,893
Dec-98	$2,064,429	$386,295	$15,140,257	$10,353,322
Jan-99	$4,366,822	$595,015	$20,102,094	$14,720,144
Feb-99	$4,055,491	$428,931	$24,586,516	$18,775,635
Mar-99	$2,990,806	$491,930	$28,069,251	$21,766,441
Apr-99	$2,288,579	$420,001	$30,777,831	$24,055,020
May-99	$341,600	$171,237	$31,290,668	$24,396,620
Jun-99	$268,476	$94,756	$31,653,900	$24,665,096
Jul-99	$123,796	$67,171	$31,844,866	$24,788,892
Aug-99	$540,711	$62,777	$32,448,355	$25,329,603
Sep-99	$589,023	$55,638	$33,093,016	$25,918,626
Oct-99	$984,576	$113,827	$34,191,419	$26,903,202
Nov-99	$4,275,310	$269,173	$38,735,902	$31,178,512
Dec-99	$6,472,152	$438,838	$45,646,892	$37,650,664
Jan-00	$8,269,874	$696,339	$54,613,105	$45,920,538
Feb-00	$3,753,746	$699,457	$59,066,307	$49,674,284
Mar-00	$3,728,859	$457,115	$63,252,281	$53,403,143
Apr-00	$2,529,053	$120,373	$65,901,706	$55,932,196
May-00	$3,057,481	$150,316	$69,109,503	$58,989,677
Jun-00	$1,573,599	$68,996	$70,752,098	$60,563,276
Jul-00	$1,154,313	$46,821	$71,953,232	$61,717,589
Aug-00	$2,211,421	$58,508	$74,223,161	$63,929,009
Sep-00	$2,315,744	$51,350	$76,590,255	$66,244,753
Oct-00	$3,776,227	$121,841	$80,488,323	$70,020,980
Nov-00	$8,309,251	$208,106	$89,005,680	$78,330,231
Dec-00	$18,390,763	$538,633	$107,935,076	$96,720,994

Month	Total Monthly Choice Savings	Monthly PIPP Savings	Cumulative Savings (Incl PIPP)	Cumulative Savings (Excl PIPP)
Jan-01	$18,245,197	$752,288	$126,932,560	$114,966,191
Feb-01	$21,791,360	$723,181	$149,447,101	$136,757,550
Mar-01	$18,360,884	$693,255	$168,901,239	$155,518,434
Apr-01	$12,719,894	$571,992	$182,193,125	$168,238,328
May-01	$5,121,496	$155,768	$187,470,389	$173,359,824
Jun-01	$3,761,313	$114,641	$191,346,342	$177,121,136
Jul-01	$2,210,356	$69,621	$193,626,319	$179,331,492
Aug-01	($421,041)	$48,501	$193,253,779	$178,910,452
Sep-01	($642,660)	$44,301	$192,655,420	$178,267,791
Oct-01	($1,148,558)	$95,536	$191,602,398	$177,119,233
Nov-01	($6,304,811)	$166,584	$185,464,170	$170,814,422
Dec-01	($8,608,644)	$241,333	$177,096,859	$162,205,778
Jan-02	($15,247,278)	$456,852	$162,306,434	$146,958,501
Feb-02	($12,191,402)	$342,231	$150,457,263	$134,767,098
Mar-02	($9,315,264)	$355,597	$141,497,596	$125,451,834
Apr-02	($7,172,119)	$295,298	$134,620,775	$118,279,715
May-02	($4,764,190)	$158,107	$130,014,691	$113,515,525
Jun-02	($2,756,952)	$94,387	$127,352,126	$110,758,573
Jul-02	($1,561,469)	$50,750	$125,841,408	$109,197,104
Aug-02	$367,475	$44,089	$126,252,972	$109,564,579
Sep-02	$256,461	$41,585	$126,551,017	$109,821,040
Oct-02	$270,134	$62,349	$126,883,501	$110,091,174
Nov-02	$1,083,017	$217,814	$128,184,332	$111,174,191
Dec-02	$721,920	$392,134	$129,298,386	$111,896,111
Jan-03	$102,713	$519,274	$129,920,374	$111,998,824
Feb-03	$6,700,229	$655,759	$137,276,361	$118,699,053
Mar-03	$4,711,356	$601,685	$142,589,403	$123,410,409
Apr-03	$7,451,129	$236,472	$150,277,004	$130,861,538
May-03	$5,312,980	$124,194	$155,714,177	$136,174,517
Jun-03	$3,582,441	$84,048	$159,380,667	$139,756,959
Jul-03	$2,063,510	$44,755	$161,488,933	$141,820,469
Aug-03	($281,823)	$38,953	$161,246,063	$141,538,646
Sep-03	($119,498)	$38,189	$161,164,753	$141,419,148
Oct-03	($91,785)	$87,000	$161,159,968	$141,327,363
Nov-03	($3,471,853)	$130,215	$157,818,330	$137,855,510
Dec-03	($7,754,932)	$251,134	$150,314,533	$130,100,578
Jan-04	($16,586,279)	$369,962	$134,098,215	$113,514,299
Feb-04	($14,691,088)	$447,855	$119,854,982	$98,823,211
Mar-04	($9,722,986)	$334,371	$110,466,366	$89,100,225
Apr-04	($7,012,777)	$0	$103,453,590	$82,087,448
May-04	($2,213,629)	$0	$101,239,961	$79,873,819
Jun-04	($1,120,230)	$0	$100,119,732	$78,753,590
Jul-04	($1,251,664)	$0	$98,868,068	$77,501,926
Aug-04	($61,491)	$0	$98,806,577	$77,440,435
Sep-04	$79,275	$0	$98,885,852	$77,519,710
Oct-04	$96,620	$0	$98,982,472	$77,616,330
Nov-04	($1,977,765)	$0	$97,004,707	$75,638,565
Dec-04	($2,313,873)	$0	$94,690,834	$73,324,692
Jan-05	($2,586,099)	$0	$92,104,734	$70,738,593

Month	Total Monthly Choice Savings	Monthly PIPP Savings	Cumulative Savings (Incl PIPP)	Cumulative Savings (Excl PIPP)
Feb-05	($9,750,426)	$0	$82,354,308	$60,988,166
Mar-05	($10,249,233)	$0	$72,105,075	$50,738,933
Apr-05	($2,554,763)	$0	$69,550,312	$48,184,170
May-05	($1,829,816)	$0	$67,720,496	$46,354,354
Jun-05	($893,993)	$0	$66,826,503	$45,460,361
Jul-05	($771,110)	$0	$66,055,392	$44,689,251
Aug-05	($7,350)	$0	$66,048,042	$44,681,901
Sep-05	$312,384	$0	$66,360,427	$44,994,285
Oct-05	$716,106	$0	$67,076,533	$45,710,391
Nov-05	($1,088,445)	$0	$65,988,088	$44,621,946
Dec-05	($1,171,195)	$0	$64,816,892	$43,450,750
Jan-06	($4,052,738)	$0	$60,764,154	$39,398,012
Feb-06	($8,730,590)	$0	$52,033,564	$30,667,422
Mar-06	($15,285,104)	$0	$36,748,459	$15,382,317
Apr-06	($9,606,569)	$53,181	$27,195,071	$5,775,748
May-06	($5,056,096)	$26,802	$22,165,777	$719,652
Jun-06	($3,312,155)	$14,795	$18,868,417	($2,592,503)
Jul-06	($2,477,718)	$8,309	$16,399,008	($5,070,221)
Aug-06	($2,533,436)	$8,075	$13,873,646	($7,603,658)
Sep-06	($2,100,387)	$8,066	$11,781,325	($9,704,045)
Oct-06	($6,920,021)	$17,003	$4,878,307	($16,624,066)
Nov-06	($11,724,363)	$40,939	($6,805,117)	($28,348,429)
Dec-06	($16,497,380)	$59,733	($23,242,764)	($44,845,809)
Jan-07	($20,699,603)	$71,970	($43,870,396)	($65,545,412)
Feb-07	($28,126,575)	$105,900	($71,891,071)	($93,671,988)
Mar-07	($20,397,523)	$91,869	($92,196,725)	($114,069,510)
Apr-07	($18,515,663)	$77,960	($110,634,428)	($132,585,173)
May-07	($5,531,196)	$41,549	($116,124,075)	($138,116,369)
Jun-07	($2,587,269)	$18,743	($118,692,601)	($140,703,638)
Jul-07	($2,252,592)	$13,759	($120,931,434)	($142,956,230)
Aug-07	($2,205,982)	$11,085	($123,126,330)	($145,162,212)
Sep-07	($2,092,243)	$11,445	($125,207,128)	($147,254,455)
Oct-07	($2,781,976)	$14,771	($127,974,333)	($150,036,431)
Nov-07	($5,843,575)	$49,773	($133,768,135)	($155,880,006)
Dec-07	($11,194,646)	$104,032	($144,858,749)	($167,074,653)
Jan-08	($13,051,903)	$131,676	($157,778,977)	($180,126,556)
Feb-08	($8,860,007)	$141,785	($166,497,198)	($188,986,563)
Mar-08	($10,066,238)	$142,920	($176,420,516)	($199,052,801)
Apr-08	($3,454,406)	$73,436	($179,801,486)	($202,507,206)
May-08	($1,928,103)	$31,482	($181,698,107)	($204,435,310)
Jun-08	($1,170,091)	$20,328	($182,847,870)	($205,605,401)
Jul-08	($790,044)	$11,537	($183,626,378)	($206,395,445)
Aug-08	($1,614,359)	$9,710	($185,231,027)	($208,009,805)
Sep-08	($2,602,790)	$8,792	($187,825,025)	($210,612,595)
Oct-08	($3,953,159)	$14,224	($191,763,960)	($214,565,754)
Nov-08	($5,078,415)	$43,070	($196,799,305)	($219,644,169)
Dec-08	($3,460,056)	$92,916	($200,166,446)	($223,104,225)

Month	Total Monthly Choice Savings	Monthly PIPP Savings	Cumulative Savings (Incl PIPP)	Cumulative Savings (Excl PIPP)
Jan-09	($37,824,259)	$124,409	($237,866,295)	($260,928,484)
Feb-09	($29,054,361)	$125,729	($266,794,927)	($289,982,845)
Mar-09	($18,133,351)	$95,546	($284,832,732)	($308,116,196)
Apr-09	($19,196,248)	$14,350	($304,014,630)	($327,312,444)
May-09	($10,977,112)	$6,975	($314,984,768)	($338,289,557)
Jun-09	($4,685,174)	$3,592	($319,666,350)	($342,974,731)
Jul-09	($3,803,121)	$2,223	($323,467,248)	($346,777,852)
Aug-09	($5,086,611)	$2,092	($328,551,766)	($351,864,463)
Sep-09	($4,816,429)	$1,949	($333,366,245)	($356,680,892)
Oct-09	($9,666,676)	$4,560	($343,028,362)	($366,347,568)
Nov-09	($16,018,366)	$8,603	($359,038,125)	($382,365,935)
Dec-09	($29,757,064)	$14,783	($388,780,407)	($412,122,999)
Jan-10	($58,534,561)	$25,333	($447,289,636)	($470,657,560)
Feb-10	($54,886,642)	$23,999	($502,152,279)	($525,544,202)
Mar-10	($42,565,680)	$20,305	($544,697,654)	($568,109,882)
Apr-10	($15,552,868)	$0	($560,250,522)	($583,662,750)
May-10	($6,892,306)	$0	($567,142,828)	($590,555,056)
Jun-10	($4,489,589)	$0	($571,632,417)	($595,044,645)
Jul-10	($3,289,540)	$0	($574,921,957)	($598,334,185)
Aug-10	($2,659,755)	$0	($577,581,712)	($600,993,940)
Sep-10	($3,581,584)	$0	($581,163,296)	($604,575,524)
Oct-10	($4,992,010)	$0	($586,155,306)	($609,567,534)
Nov-10	($11,946,139)	$0	($598,101,446)	($621,513,674)
Dec-10	($18,655,779)	$0	($616,757,225)	($640,169,453)
Jan-11	($27,471,440)	$0	($644,228,665)	($667,640,894)
Feb-11	($24,223,884)	$0	($668,452,549)	($691,864,778)
Mar-11	($20,620,889)	$0	($689,073,439)	($712,485,667)
Apr-11	($12,305,658)	$0	($701,379,096)	($724,791,324)
May-11	($6,640,768)	$0	($708,019,864)	($731,432,092)
Jun-11	($3,442,292)	$0	($711,462,156)	($734,874,384)
Jul-11	($2,678,937)	$0	($714,141,094)	($737,553,322)
Aug-11	($2,371,209)	$0	($716,512,303)	($739,924,531)
Sep-11	($2,919,182)	$0	($719,431,485)	($742,843,713)
Oct-11	($4,315,491)	$0	($723,746,976)	($747,159,204)
Nov-11	($9,295,346)	$0	($733,042,322)	($756,454,550)
Dec-11	($16,567,409)	$0	($749,609,731)	($773,021,959)
Jan-12	($24,644,446)	$0	($774,254,177)	($797,666,405)
Feb-12	($27,277,024)	$0	($801,531,201)	($824,943,429)
Mar-12	($22,443,024)	$0	($823,974,225)	($847,386,453)
Apr-12	($12,995,122)	$0	($836,969,347)	($860,381,575)
May-12	($10,008,296)	$0	($846,977,643)	($870,389,871)
Jun-12	($4,544,409)	$0	($851,522,052)	($874,934,280)
Jul-12	($3,432,128)	$0	($854,954,180)	($878,366,408)
Aug-12	($2,843,602)	$0	($857,797,782)	($881,210,010)
Sep-12	($3,377,321)	$0	($861,175,104)	($884,587,332)

EXHIBIT SH-8

PUCO Case No. 12-2637-GA-EXM
OPAE Interrogatory No. 2-7
Respondents T. C. Heckathorn and Stephen B. Seiple

COLUMBIA GAS OF OHIO, INC.
RESPONSE TO OPAE'S SECOND SET OF INTERROGATORIES
DATED NOVEMBER 20, 2012

Interrogatory No. 2-7:

Regarding the 2012 SCO auction:

a. What was the cost of the 2012 SCO auction?

b. What was the cost of the auction per customer for the 2012 auction?

Response:

a. World Energy's fee was $70,000.

b. Objection – the question is vague. The question has not defined the word "customer" for purposes of this response – e.g., all customers, or all customers on a particular rate schedule, etc.

EXHIBIT SH-9

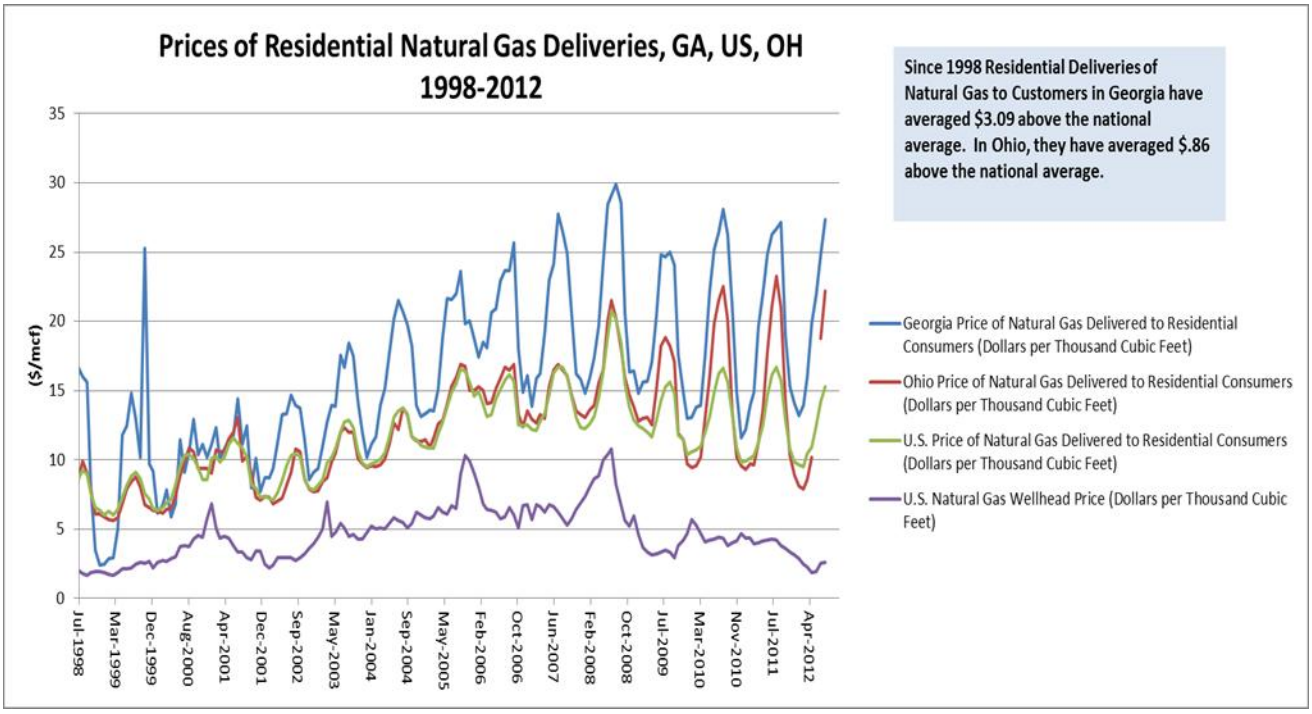
Prices of Residential Natural Gas Deliveries, GA, US, OH
1998-2012
($/mcf)
35
30
25
20
15
10
5
0
Jul-1998
Mar-1999
Dec-1999
Aug-2000
Apr-2001
Dec-2001
Sep-2002
May-2003
Jan-2004
Sep-2004
May-2005
Feb-2006
Oct-2006
Jun-2007
Feb-2008
Oct-2008
Jul-2009
Mar-2010
Nov-2010
Jul-2011
Apr-2012
Since 1998 Residential Deliveries of Natural Gas to Customers in Georgia have averaged $3.09 above the national average. In Ohio, they have averaged $.86 above the national average.
Georgia Price of Natural Gas Delivered to Residential Consumers (Dollars per Thousand Cubic Feet)
Ohio Price of Natural Gas Delivered to Residential Consumers (Dollars per Thousand Cubic Feet)
U.S. Price of Natural Gas Delivered to Residential Consumers (Dollars per Thousand Cubic Feet)
U.S. Natural Gas Wellhead Price (Dollars per Thousand Cubic Feet)

EXHIBIT SH-10

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Direct Testimony of Stacia Harper on behalf of Ohio Partners for Affordable Energy was served electronically upon the parties identified below on this 30th day of November 2012.

/s/Colleen L. Mooney
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Summary: Exhibit s to the Testimony of Stacia Harper electronically filed by Colleen L Mooney on behalf of Ohio Partners for Affordable Energy