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BEFORE THE
PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Vectren :
Energy Delivery Ohio, Inc. for Approval of : Case No.18-0049-GA-ALT
An Alternative Rate Plan. :

In the Matter of the Application of Vectren :
Energy Delivery Ohio, Inc. for Approval of : Case No.18-0298-GA-AIR
an Increase in Gas Rates. :

In the Matter of the Application of Vectren :
Energy Delivery Ohio, Inc. for Approval of : Case No.18-0299-GA-ALT
An Alternative Rate Plan. :

DIRECT TESTIMONY
AND EXHIBITS

OF

JAMES L. CRIST, P.E.

ON BEHALF OF

THE RETAIL ENERGY SUPPLY ASSOCIATION

November 7, 2018

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1 **I. WITNESS BACKGROUND**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS, AND ON**
3 **WHOSE BEHALF YOU ARE TESTIFYING?**

4 A. I am James L. Crist, President of Lumen Group, Inc., a consulting firm focused on
5 regulatory and market issues. My business address is 4226 Yarmouth Drive, Suite
6 101, Allison Park, Pennsylvania, 15101. I am presenting testimony on behalf of
7 the Retail Energy Supply Association ("RESA").

8 **Q. DO YOU HAVE ANY QUALIFICATIONS OR OTHER SPECIALIZED**
9 **KNOWLEDGE THAT WOULD ASSIST THIS COMMISSION IN ITS**
10 **DELIBERATIONS IN THIS CASE?**

11 A. Yes.

12 **Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?**

13 A. I have a B.S. in Chemical Engineering from Carnegie Mellon University and an
14 MBA from the University of Pittsburgh. Additionally, I am a Registered
15 Professional Engineer in the Commonwealth of Pennsylvania.

16 **Q. BRIEFLY DESCRIBE YOUR RELEVANT BUSINESS QUALIFICATIONS.**

17 A. I have run a consulting practice for the past 22 years focused on regulated and
18 deregulated energy company strategy, market strategy, and regulatory issues.
19 During 2004 and 2005, I undertook a consulting assignment as the Vice President
20 of Consumer Markets for ACN Energy. ACN is a gas and electric supplier that is
21 active in eight states. Prior to my consulting practice, I worked at three major
22 energy companies for a total of 19 years. Most recently, I was Vice President of

1 Marketing for Equitable Resources, Inc. In that function, I was responsible for the
2 development of the company's deregulated business strategy.

3 Prior to that, I was Vice President of Marketing for Citizens Utilities Company
4 ("Citizens"), responsible for gas, electric, water and wastewater marketing
5 activities in several service territories within the United States. The gas and electric
6 utility operations were in Vermont, Louisiana, Arizona, Colorado, and Hawaii.
7 Under my direction, Citizens initiated commercial and industrial transportation and
8 supply services at its gas operation in Arizona. As a consultant for Citizens, I
9 designed a demand response program for its electric operations in Arizona.

10 Before that, during 1988 through 1994, I was the Marketing Director at the Peoples
11 Natural Gas Company ("Peoples") where I was actively involved in many gas
12 transportation programs as the company relaxed transportation requirements so that
13 customers would have supply choices.

14 From 1977 through 1988, at Consolidated Natural Gas and the East Ohio Gas
15 Company, I held several engineering and technical management positions
16 encompassing work on energy conversion technology, coal gasification, and
17 combined heat & power ("CHP") systems. I have conducted training sessions on
18 CHP for the Gas Technology Institute ("GTI") and the Association of Energy
19 Engineers, and served as a Project Advisor on GTI's Cogeneration Advisory
20 Committee.

21 In summary, I have considerable experience in several states involving residential,
22 commercial, and industrial customer utility issues, energy procurement and
23 industry restructuring programs.

1 In addition to my current consulting practice, I am a Visiting Faculty Scholar at the
2 Katz Graduate School of Business at the University of Pittsburgh.

3 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS PUBLIC**
4 **UTILITIES COMMISSION?**

5 A. No, however, I have appeared before regulatory Commissions in Pennsylvania,
6 Arizona, Illinois, New Mexico, Maryland and the U.S. Virgin Islands. I have
7 provided testimony in several gas and electric regulatory proceedings on a variety
8 of issues relating to energy procurement, industry restructuring, and demand
9 response. A list of my recent appearances is attached as Exhibit JC-1.

10 **II. RETAIL ENERGY SUPPLY ASSOCIATION**

11 **Q. WOULD YOU DESCRIBE THE RETAIL ENERGY SUPPLY**
12 **ASSOCIATION?**

13 A. Founded in 1990, RESA is a broad and diverse group of retail energy suppliers
14 dedicated to promoting efficient, sustainable and customer-oriented competitive
15 retail energy markets. RESA members operate throughout the United States
16 delivering value-added electricity and natural gas service at retail to residential,
17 commercial and industrial energy customers.

18 **III. PURPOSE OF TESTIMONY**

19 **Q. WHAT ARE THE ISSUES YOU WILL DISCUSS?**

20 A. The purpose of my testimony is to address certain proposals in Vectren Energy
21 Delivery of Ohio, Inc.'s ("Vectren") applications in these proceedings, certain
22 recommendations or lack of recommendations by the Public Utilities Commission
23 of Ohio ("PUCO") Staff and my recommendations to address those issues. My
24 direct testimony will focus on several main areas.

1 (1) The need for an exit from the merchant function applicable to both the
2 residential and commercial markets.

3 (2) The proposed Capital Expenditure Program (“CEP”), which must ensure that
4 the Company’s future capital investments will be appropriate in the first place and
5 include improvements and upgrades that help development of the competitive
6 market in Vectren’s territory.

7 (3) Costs related to Vectren’s Standard Choice Offer, which must be properly
8 allocated on a non-bypassable and bypassable basis.

9 (4) The proposed multi-family housing pilot program should be approved.

10 (5) The importance of customers and suppliers having access to customer-specific
11 peak day information, including peak load, instead of reliance on average peak
12 values.

13 (6) Ensuring non-commodity billing is available on the same terms and conditions
14 to all suppliers, and such conditions are reflected in Vectren’s tariff.

15 (7) The need to expand billing options must be expanded to provide greater
16 flexibility to suppliers.

17 Each of my recommendations is important in forwarding a fair and unbiased
18 marketplace where shopping customers are not unduly burdened with distribution
19 costs that include paying for services that benefit non-shopping customers. Ohio
20 has made positive steps in the direction of establishing a level playing field for
21 companies to compete for a customer’s patronage and my recommendations will
22 further that movement and support existing State and PUCO policy.

23 (8) Vectren’s proposed creditworthiness standards lack clarity of the existing

standards, which could allow for subjectivity and discrimination. The proposed changes should be rejected.

Q. WHAT PUCO POLICY DIRECTS DISTRIBUTION UTILITIES TO REMOVE BARRIERS AND ALLOW FREE MARKET COMPETITION?

A. Ohio Revised Code § 4929.02(A) lists the state policy as to natural gas services and goods. These include the following subsections of Revised Code § 4929.02(A):

- (2) Promote the availability of unbundled and comparable natural gas services and goods that provide wholesale and retail consumers with the supplier, price, terms, conditions, and quality options they elect to meet their respective needs;
- (4) Encourage innovation and market access for cost-effective supply- and demand-side natural gas services and goods;
- (5) Encourage cost-effective and efficient access to information regarding the operation of the distribution systems of natural gas companies in order to promote effective customer choice of 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; [and]
- (8) Promote effective competition in the provision of natural gas services and goods by avoiding subsidies flowing to or from regulated natural gas services and goods.

1 **IV. VECTREN MUST EXIT THE MERCHANT GAS SUPPLY FUNCTION**

2 **Q. WERE NATURAL GAS UTILITIES THE ONLY BUSINESS ENTITIES IN**
3 **THE GAS SUPPLY BUSINESS HISTORICALLY?**

4 A. Yes, but you must travel back in time to the 1970's to experience that situation.
5 During the oil embargos, and due to wellhead price regulation of natural gas, there
6 *were supply shortages throughout that decade, most notably during 1973 and 1978.*
7 This prompted Congress to pass the Fuel Use Act of 1978 prohibiting construction
8 of new power plants that burned natural gas as their primary fuel source. Another
9 effect of the short supply of natural gas at the time was that to meet the needs of
10 residential and commercial customers' gas supplies were prioritized to flow to those
11 classes, leaving industrial customers to use oil or coal. To overcome this problem,
12 the East Ohio Gas Company (now Dominion Energy Ohio) initiated a "self help
13 gas" program. East Ohio Gas's service territory is an area that is home to not just
14 many industrial customers, but also an area rich in natural gas production resources.
15 East Ohio Gas allowed customers that owned or purchased privately produced gas
16 to transport such gas from the gathering system that fed into the East Ohio Gas
17 distribution system onto the delivery point at the customer. I worked at East Ohio
18 Gas during that period and would explain to customers that under this concept, East
19 Ohio Gas would solely be functioning as a delivery company and transporting the
20 gas that the customer owned from its point of production to its point of use. This
21 novel program allowed many industrial customers to stay in business and continue
22 to use natural gas in their manufacturing process. I believe that this Ohio-based
23 program was the first time a distribution utility allowed gas owned by others to be

1 moved through the distribution system.

2 **Q. WHAT CHANGES IN THE USE OF THE DELIVERY SYSTEM**
3 **FOLLOWED?**

4 A. In time, at the federal level, FERC issued a series of orders (notably 436 and 636)
5 that required natural gas pipelines provide open access transportation services,
6 allowing customers to negotiate prices directly with producers and contract
7 separately for transportation of that gas. Eventually the mandated unbundling of
8 sales from transportation services allowed for the development of the natural gas
9 supplier industry with a broad field of natural gas suppliers competing for the
10 patronage of individual customers.

11 **Q. HOW DOES VECTREN'S CURRENT GAS SUPPLY FUNCTION**
12 **OPERATE?**

13 A. Vectren, like many natural gas distribution utilities, allows customers to transport
14 gas from independent markers that serve both large (commercial and industrial) and
15 small (residential) customers. Independent suppliers sell directly to customers and
16 are free to design pricing products that appeal to consumers, such as a fixed price
17 instead of a more volatile variable price product. There are some customers that
18 decline the opportunity to actively shop and for those customers, the utility will
19 have their gas supplied using a Standard Choice Offer ("SCO"). Those customers
20 receive natural gas through a supplier that is one of a small group of suppliers
21 authorized as an SCO supplier. The price of the SCO gas is the same regardless of
22 who the supplier is, and the price varies monthly and is based on the commodity
23 market and includes an "adder" or mark up for the supplier. The SCO price is

1 regulated by the PUCO in its design and procurement. The system of having SCO
2 suppliers replace Vectren as a supplier, which was the status quo for a long time,
3 represents movement toward having Vectren exit the merchant function entirely.

4 **Q. HAS VECTREN INDICATED IT INTENDS TO MAKE PROGRESS**
5 **TOWARD AN EXIT OF THE MERCHANT FUNCTION?**

6 A. Yes. In Schedule E-3, Page 32 of 80, Vectren explains changes in its Proposed
7 Sheet No. 41, the Exit Transition Cost Rider. Vectren describes its costs collected
8 in the rider as “costs associated with Company’s Choice Program and exit of the
9 merchant function.”

10 **Q. WHAT IS THE NEXT STEP TO EXIT THE MERCHANT FUNCTION?**

11 A. The SCO would be eliminated as an option for customers, and all customers would
12 need to take action to select a supplier. The utility would not function as a supplier,
13 nor would the utility arrange a Standard Choice Offer, so all customers would be
14 served by competitive suppliers.

15 **Q. WHAT OVERSIGHT OF THE COMPETITIVE SUPPLIERS EXISTS?**

16 A. Although the pricing and products offered to customers by the competitive
17 suppliers are not regulated, there is significant oversight of the industry by the
18 PUCO. The financial security of the supplier, known as a Competitive Retail
19 Natural Gas Supplier or CRNGS, is evaluated and marketing practices must comply
20 with consumer protection regulations. Complaints against a CRNGS may be
21 presented to the PUCO and its decisions could impact the CRNGS financially or
22 restrict or eliminate their right to conduct business in Ohio. There is substantial
23 oversight of the industry and in many cases where a net is needed to transition a

1 customer between their affirmative choices the PUCO can put in place a transition
2 product.

3 **Q. WHAT OTHER NATURAL GAS DISTRIBUTION UTILITIES IN OHIO**
4 **HAVE ELIMINATED THE SCO AND EXITED THE MERCHANT**
5 **FUNCTION?**

6 A. Dominion East Ohio (“DEO”) has done so for non-residential customers with
7 annual consumption of 3,000 MCF/year and greater. Such customers may select a
8 supplier from among the CRNGSs or they will be assigned a supplier. Virtually
9 none of those customers have DEO as their gas supplier, but instead, DEO is purely
10 the distribution company, delivering the gas to the customer.

11 **Q. WHAT CONCLUSIONS CAN BE DRAWN FROM AN EXAMINATION OF**
12 **SHOPPING DATA?**

13 A. I examined data available on the PUCO website at the URL
14 [https://www.puco.ohio.gov/industry-information/statistical-reports/natural-gas-](https://www.puco.ohio.gov/industry-information/statistical-reports/natural-gas-customer-choice-program/)
15 [customer-choice-program/](https://www.puco.ohio.gov/industry-information/statistical-reports/natural-gas-customer-choice-program/).

16 This provides historic data for shopping customers and I am including data from
17 September 2017 and September 2018 as Exhibit JC-2. The reports present data on
18 the number of choice and non-choice customers by utility and by customer
19 classification of residential or commercial/industrial. Although “choice” often
20 refers to residential customers who are obtaining gas supply from a competitive
21 retail natural gas supplier, in the context of this report “choice” refers to all
22 customer classes obtaining supply from a CRNGS. Non-choice customers are
23 *obtaining their supply under arrangements made by the utility.*

1 Of the four large natural gas utilities in Ohio, Vectren trails the others in
2 participation at a mere 40.3% (September 2017), while Columbia of Ohio (“COH”)
3 is at 47.1%, Duke Energy of Ohio (“Duke”) is at 59.7%, and Dominion East Ohio
4 Gas (“DEO”) leads with 71.6%. If we roll back the calendar by one year to
5 September 2016 the Vectren results are equally poor at 39.1%, with COH at 42.8%,
6 Duke at 51.3%, and DEO at 73.0%. Additionally, I note that during that year both
7 COH and Duke improved the choice participation by 4.3% and 8.4% respectively
8 while Vectren improved by a mere 1.2%. Clearly, significant action is required to
9 improve the choice participation at Vectren.

10 **Q. WHY SHOULD VECTREN EXIT THE MERCHANT SUPPLY**
11 **FUNCTION?**

12 A. It is time to do so. Vectren trails the other gas utilities in Ohio in choice
13 participation, despite having a choice program for years. Recent data show no
14 appreciable rate of increased participation. By directing Vectren to exit the
15 merchant supply function, the PUCO would then see substantial progress toward
16 the goal stated in Ohio Revised Code Section 4929.02(A)(7) which states,
17 “Promote an expeditious transition to the provision of natural gas services and
18 goods in a manner that achieves effective competition and transactions between
19 willing buyers and willing sellers.” This change has not occurred by Vectren’s
20 actions and therefore will require strong direction from the PUCO.

21
22 **Q. SHOULD THE PUCO DIRECT VECTREN TO EXIT THE MERCHANT**
23 **SUPPLY FUNCTION FOR ALL CLASSES OF CUSTOMERS?**

1 A. Yes, although if the PUCO wishes to provide such direction in steps, then I would
2 recommend that Vectren first exit the merchant supply function for the
3 commercial/industrial classes, and then complete the merchant supply function exit
4 for all customer classes including residential. Regardless of whether a non-
5 residential exit takes place first, the PUCO should require Vectren to submit an
6 application to exit the merchant function and includes proposed terms and
7 conditions for the exit.

8 V. **VECTREN'S CAPITAL EXPENDITURE PROGRAM MUST SUPPORT**
9 **THE DEVELOPMENT OF THE COMPETITIVE MARKET**

10 Q. **WHY HAS VECTREN PROPOSED A CAPITAL EXPENDITURE**
11 **PROGRAM RIDER?**

12 A. Vectren proposes, as an alternative rate plan, to establish a recovery mechanism for
13 its Competitive Expenditure Program ("CEP") through the addition of the CEP
14 Rider for the CEP investment dollars deferred starting in 2018.¹ Vectren also
15 proposes to adjust the rider each year so that it collects from customers the prior
16 year's CEP deferrals. It also proposes to recover through this new CEP Rider a
17 return on the CEP-associated deferrals (but not the investments themselves) and a
18 Shared Asset Charge. The Shared Asset Charge ("SAC") will only be included as
19 part of the CEP Rider charges if the CEP investment exceeds what is approved in
20 Vectren's base rates. At this time, Vectren is not proposing a specific rate for this
21 new rider, just to establish the rider as a placeholder and establish the rate in 2019
22 based on the 2018 deferrals. However, Vectren does propose the rate design for

¹ Vectren proposes to recover the existing accrued CEP deferrals through December 2017 in its base distribution rates in Case No. 18-298-GA-AIR.

1 the CEP Rider as a fixed charge for some customers and a volumetric charge for
2 other customers. Vectren also proposes an expedited 60-day review process for
3 adjusting the CEP Rider rates, with the Staff filing its report within two months of
4 the application.

5 **Q. WHAT ARE THE STAFF RECOMMENDATIONS REGARDING THE**
6 **PROPOSED CEP RIDER?**

7 A. Staff recommends that the CEP Rider proposal be approved with several
8 modifications:

- 9 • The CEP Rider approval be contingent on Vectren filing a base
10 distribution rate case upon completion of its Distribution
11 Replacement Rider program and no later than 2024.
- 12 • The deferral of CEP-associated expenses (post-in-service carrying
13 charges, property tax and depreciation expenses) end when the CEP
14 assets begin to be recovered in rates.
- 15 • Vectren work with Staff to identify annual caps and other cost
16 controls to ensure that customers are not paying for excessive
17 investments.
- 18 • Amortization of the CEP deferrals be over the life of the plant (not
19 Vectren's average system depreciation rate). Staff presented an
20 alternative of discussing the establishment of one rider for all of
21 Vectren's capital investments that will be filed annually and
22 conclude or sunset at the filing of Vectren's next base rate case.
- 23 • As to the review process, Staff recommends a minimum of a four-
24 month process for the Staff to issue its report. Additionally, an audit
25 of the CEP assets, including review of the used and useful nature of
26 the assets, the necessity of the investments and the prudence of the
27 investments.
- 28 • SAC expenses not be included in the CEP Rider because they are
29 operations and maintenance charges.
- 30 • A depreciation offset to the CEP Rider be established because many
31 of the assets in rate base will be retired and associated depreciation
32 expense should be declining.

1 **Q. DO YOU AGREE WITH STAFF’S RECOMMENDATIONS REGARDING**
2 **THE CEP RIDER?**

3 A. Not entirely, primarily because not only is the amount of capital spent an important
4 consideration but also the specific reason for the capital investment is an even
5 greater concern. In addition to the obvious capital investment of distribution system
6 extension and replacement that Vectren will be making, there are significant
7 investments in its information technology, customer service and billing systems
8 that may be necessary to achieve the goal of exiting the merchant function.
9 Identification and examination of all capital projects occurs in a thorough process
10 during a base rate filing and allows time for scrutiny of such projects, whereas
11 addressing capital expenditures collected in a rider may not have the same degree
12 of oversight. First, Staff’s proposed modifications will allow Vectren to defer *any*
13 CEP-related costs and expenses starting in 2018 and have that deferral authority for
14 years. The mini-annual reviews will not review the overall investment strategy and
15 activities with the CEP. Related, Staff’s recommended approval of the CEP rider
16 with a modification that Vectren “work with Staff to identify reasonable and
17 meaningful annual caps...as well as other cost controls” is inadequate. No approval
18 of the CEP Rider should be given without establishing cost controls at the same
19 time. A requirement that Vectren and Staff *work to identify* cost controls for the
20 CEP investments will not ensure that the Company’s future capital investments will
21 be appropriate in the first place and will not ensure that the future capital
22 investments include improvements and upgrades that help development of the
23 competitive market in Vectren’s territory. Further, Staff’s recommended annual,

1 after-the-fact audits of the assets also will not ensure that improvements and
2 upgrades to help development of the competitive market will take place. Together,
3 the Staff's recommendations fall short of ensuring that Vectren's future capital
4 investments will implement that are appropriate for Vectren's service territory.

5 Second, I agree that the review process should allow the Staff adequate time and
6 allowing at a *minimum* of two to four months for the Staff to investigate and issue
7 its report is reasonable. I also concur that the CEP assets should be audited, with
8 that review including an analysis of the used and useful nature of that year's assets,
9 the necessity of that year's investments and the prudence of that year's investments.
10 Staff, however, overlooked the remainder of Vectren's proposed process: (a)
11 parties have two weeks to file comments on the Staff's report; (b) parties have one
12 week thereafter to resolve issues; (c) the hearing be held perhaps as quick as two
13 weeks after comments; and (d) the new CEP Rider rate be effective the first of
14 August. These time periods do not allow for adequate discovery, adequate
15 preparation or adequate opportunity to address settlement, particularly if the annual
16 review cases will not be limited to a financial or mathematical accuracy analysis.

17 **Q. WHAT ARE YOUR RECOMMENDATIONS FOR THE CEP RIDER?**

18 A. As explained, my greatest concern is to ensure that Vectren is making the proper
19 capital investment in the business systems infrastructure to enable movement to the
20 progressive business model of exiting the merchant function, not just spending lots
21 of money putting new pipe in the ground. Therefore, the involvement of other
22 parties is necessary and the proposed process timetable is entirely inadequate to
23 allow for genuine inspection, review, and input. At a minimum, parties should have
24 six weeks to review the staff report, then four weeks to attempt to resolve issues,

1 followed by hearings four weeks after comments. While I appreciate the
2 expediency that is desired by placing recovery of costs in a rider and not forcing
3 the Company to file an expensive and complex base rate case annually, such a
4 process cannot allow any shortcuts of the review or severely limit the amount or
5 quality of input that other parties may have.

6 **Q. WHAT CAPITAL PROJECTS SUPPORT A COMPETITIVE MARKET?**

7 A. While commonly gas distribution capital projects involve pipeline replacement and
8 expansion, there are significant business systems that often require improvements
9 to provide the speed and flexibility demanded by today's customers in a
10 competitive marketplace. While gas pipeline construction has few industries to
11 learn from when seeking best practices apart from water utilities, contact centers
12 and billing systems can model improvements from a wealth of consumer-focused
13 industries such as financial services, retailers of goods, or airlines, all of which have
14 significant self-service platforms. It is apparent that customers are increasingly
15 aware and desirous of being well-treated in their purchase interactions, and the
16 PUCO should ensure that Vectren's systems are appropriately considered for
17 capital improvements under the CEP program to facilitate the continued
18 development of the competitive market.

1 VI. VECTREN MUST REMOVE COSTS THAT SHOULD BE COLLECTED IN
2 A RIDER FROM ITS DISTRIBUTION RATES

3 Q. WHY IS UNBUNDLING IMPORTANT?

4 A. When services are bundled and offered to customers the distinct price for each
5 component of the bundled service is unknown to those customers and allows for
6 price discrimination as certain components may be priced higher than they would
7 if offered individually. Monopolistic industries that have gone through an
8 unbundling of services have seen certain components drop in price due to consumer
9 awareness and increased competition. A clear example from outside the energy
10 industry would be in telephony where for decades the local and long-distance
11 services were bundled and only offered by AT&T. Once unbundled, competitors
12 MCI and Sprint entered the competitive market, and long distance prices dropped
13 from over 50 cents per minute to under 2 cents per minute currently, for those still
14 using landlines. Bundling can result in unclear prices of individual components
15 and cross-subsidization from not simply one service to another but also among
16 customer classes. It is only through unbundling and scrutiny of costs for each of
17 the unbundled services that accurate and appropriate pricing may be determined for
18 those services. Bundling obfuscates the true underlying costs, and creates
19 difficulties for regulators to determine what component costs are higher than
20 necessary. In the natural gas industry, the major unbundling of gas supply from
21 transmission and delivery services took place decades ago, yet still today there are
22 several components of distribution that are bundled and must be unbundled to
23 determine the true costs, and allow other entities in addition to the distribution
24 utility to provide such services. Currently, marketers are providing several services

that are necessary to meet the needs of those customers who choose to shop, and yet Vectren charges those customers for unnecessary or unwanted services provided by Vectren, simply because it has not unbundled. This practice must be addressed.

Q. WHAT DUPLICATIVE FUNCTIONS DOES VECTREN OPERATE THAT MIMIC FUNCTIONAL AREAS THAT A SUPPLIER MUST HAVE?

A. The simplest way to identify duplicative functional areas is to walk through the process a customer experiences when choosing to become a customer of a natural gas supplier. To initially seek information the prospective customer searches the internet and perhaps examines the “Apples To Apples website” of EnergyChoice.gov. Through that examination or going directly, the customer then reviews information on various supplier websites. At that point a selection is made and the customer applies for service either on-line or by calling the supplier’s contact center. Once on board as a customer the supplier handles all aspects of gas supply planning and procurement for the customer. Although the gas is delivered through the Vectren system the supplier then obtains usage from Vectren’s metering system and determines monthly billing amounts or provides rate information to the Vectren billing system so that one bill may be rendered to the customer. The supplier call center handles calls from customers about their bills and addresses any appropriate questions regarding gas supply and refers questions regarding distribution services to Vectren.

In this process the several functional areas that a supplier must have to simply exist in the business are website presence to explain gas supply products, a service

1 application function both on-line and through the contact center, gas supply
2 planning and procurement, and customer information and billing. The shopping
3 customer pays for all these functions, and all other areas not directly seen by
4 customers such as human resources, legal and regulatory, finance, and overall
5 management, in the price of the gas supply obtained from the supplier. Vectren
6 maintains similar functions and those costs are included in distribution rates and
7 paid for by both shopping and non-shopping customer. Using this example it is
8 easy to see that the shopping customer is paying for some services included by
9 Vectren in its distribution rates that the customer is not using to the full extent a
10 non-shopping customer requires the Vectren services. In other words, the customer
11 that chooses to shop is subsidizing the non-shopping customer, and this is unfair.

12 **Q. WHAT IS A FAIR METHOD TO ALLOCATE COSTS OF THE**
13 **DUPLICATIVE FUNCTIONS THAT VECTREN MAINTAINS?**

14 A. It is necessary to get into the details of each of those functions to determine what
15 portion of the function it spent on shopping vs. non-shopping customers. To do so
16 requires a level of detail that Vectren has not presented in its filing.

17 **Q. HOW CAN UNBUNDLING BE ACHIEVED?**

18 A. One way to achieve unbundling would be to require Vectren to conduct an analysis
19 of its costs and identify the proper allocation of costs. Vectren would then file an
20 application with the PUCO proposing a reallocation of its rates. Parties would be
21 able to participate in that proceeding with the PUCO making a final decision on the
22 allocation of costs. This should be required of Vectren as a condition of receiving
23 any rate increase resulting from this case, and such an analysis should then be

1 subject of a separate proceeding that Vectren should be required to initiate no later
2 than 90 days following the PUCO's order on the Applications.

3 **VI. VECTREN'S MULTI-FAMILY HOUSING PROGRAM SHOULD BE**
4 **APPROVED**

5 **Q. ARE YOU FAMILIAR WITH THE MULTI-FAMILY HOUSING PILOT**
6 **PROGRAM PROPOSED BY VECTREN AS AN ALTERNATIVE RATE**
7 **PLAN?**

8 A. Yes. As part of its application for an alternative rate plan in Case No. 18-0299-
9 GA-ALT, Vectren proposes an incentive to qualifying developers and owners of
10 multi-family buildings to cover certain costs related to natural gas piping and
11 venting in those buildings.² Under the program, developers can receive no more
12 than \$2,000 per housing unit to offset the costs of installing natural gas service to
13 individually metered apartments or condominium units. A developer can receive
14 no more than actual costs per unit. The program would be capped at an annual
15 incentive amount of \$1 million per year with any contributions necessary above
16 that amount subject to additional Commission approval.³ Contributions would
17 subsequently be included in rate base in the next distribution rate proceeding.

18 **Q. WHAT ARE THE CUSTOMER BENEFITS OF THIS PROGRAM?**

19 A. Vectren's application notes (and I agree) that natural gas is a highly efficient and
20 cost-effective heating source, but developers of multi-unit properties often do not
21 install the piping and venting to permit the use of natural gas applies due to the

² Application, Case No. 18-0299-GA-ALT at ¶10.

³ Application, Case No. 18-0299-GA-ALT at page 12-13.

1 higher up-front costs.⁴ Instead, developers rely on electricity for heating, water
2 heating, and appliances (cooking and clothes drying) instead of installing both
3 electricity and natural gas. Natural gas equipment has lower operational costs for
4 residential space heating, water heating, cooking, and clothes drying than does
5 electric equipment, and will result in lower monthly utility bills for the occupants
6 of the multi-family dwellings. Unfortunately for those residents, the developer,
7 who was strongly concerned with the construction and installation cost of such
8 equipment, was not concerned with the ongoing operating costs because the
9 residents, not the developer, end up having to pay the monthly utility bills.
10 Vectren's proposed pilot program aims to reduce or remove the first cost hurdle for
11 the developer, and allow the installation of lower operating cost natural gas
12 equipment to the benefit of the occupants. Often the occupants of multi-family
13 housing may have a lesser income than occupants of single-family dwellings, and
14 therefore this proposed pilot program will provide a significant benefit to those who
15 have a high need for it.

16 **Q. DID YOU REVIEW STAFF'S RECOMMENDATION ON THE PILOT**
17 **PROGRAM?**

18 A. Yes. Staff has recommended that the multi-family housing pilot program not be
19 adopted. Staff wrote in its Staff Report that the incentive payments would not be
20 capital expenditures by Vectren and not recoverable through rate base. Staff noted
21 that the piping and venting would be owned, operated, maintained and inspected by
22 the builder/developer and therefore, not within Vectren's ability to direct or

⁴ Application, Case No. 18-0299-GA-ALT at page 12.

1 dedicate in the service of its customers.⁵ Staff also stated that it does not want to
2 endorse incentives that promote energy competition between utilities when the
3 incentives are paid for by ratepayers.⁶

4 **Q. DO YOU AGREE WITH THE STAFF RECOMMENDATION?**

5 **A.** I do not agree with Staff's recommendation. First, I believe that the multi-family
6 housing pilot program should be adopted as proposed by Vectren given the benefits
7 it will provide to people living in multi-family units (as I discussed earlier in my
8 testimony). Second, incentives for the installation of infrastructure-related to both
9 natural gas and electricity are not uncommon and should not be viewed as
10 "competition" between utilities. For example, many utilities provide economic
11 incentives for customers when developing infrastructure to facilities such as
12 subsidizing piping or wiring distribution in new developments, or otherwise
13 working with developers to lower construction costs. For example, incentives for
14 electric vehicle charging have been approved by this Commission which could be
15 viewed as an incentive over natural gas vehicles. Or in another example, often
16 utilities have programs to encourage the replacement of outdated and inefficient
17 appliances with new, highly efficient units that will lower operating expenses.
18 Third and most importantly, this program should not be viewed as benefiting
19 developers but rather benefiting the people living in the multi-family units as it
20 would provide them with a cost-efficient source of space heating, water heating,
21 cooking and clothes drying. Once on natural gas, these customers would realize an

⁵ Staff Report at page 24.

⁶ Staff Report at page 24.

1 immediate and reoccurring monthly savings versus relying on all electric multi-
2 family units.

3 **Q. SHOULD THE COMMISSION APPROVE THE MULTI-FAMILY PILOT**
4 **PROGRAM?**

5 A. Yes, given the benefit of the program to both existing customers and new
6 customers, the program should be approved as proposed by Vectren including the
7 \$1 million a year cap.

8 **VIII VECTREN MUST PROVIDE CUSTOMER-SPECIFIC PEAK DAY**
9 **INFORMATION**

10 **Q. ARE YOU FAMILIAR WITH RESA'S OBJECTION THAT THE STAFF**
11 **REPORT FAILS TO ADDRESS GREATER DATA ACCESS AND USE OF**
12 **THE PEAK DAY INFORMATION OF INDIVIDUAL CUSTOMERS?**

13 A. Yes, I reviewed both RESA's objection on that issue as well as the objection of IGS
14 Energy.

15 **Q. WHAT ARE PEAK DAY DATA USED FOR?**

16 A. Natural gas suppliers minimize procurement costs by attempting to accurately
17 forecast the amount of gas used by the customer during the future period and then
18 procuring the necessary amount of gas (and other gas related procurement services
19 such as capacity and storage, and financial hedges) to satisfy the needs of the
20 customer.

21 **Q. WHY IS ACCESS TO PEAK DAY DATA IMPORTANT?**

22 A. A natural gas supplier can produce a more accurate forecast if the customer's usage
23 data, including the peak day data, is made available. Having individual customer
24 data is important as all customers are unique and while in the past a utility might

1 have relied on average consumptions or average load profiles of its customers in its
2 forecasting and procurement function, today the technology and information exists
3 to provide individual customer data to enable more accurate forecasting by the
4 supplier.

5 **Q. WHAT MUST VECTREN DO IN ORDER TO BE ABLE TO PROVIDE**
6 **PEAK DAY DATA?**

7 A. According to the Automated Meter Reading (“AMR”) factsheet available on
8 Vectren’s website at the URL <https://www.vectren.com/information/meters> which
9 I include as Exhibit JC-3 Vectren has completed an extensive AMR project and
10 now has AMR devices on the gas meters of its customers. This extensive, capital
11 intensive project was undertaken by Vectren to be able to obtain customer usage
12 data at a lower cost and with greater speed than the previous method involving
13 meter readers walking their routes over a 21-day cycle. It is now possible for
14 Vectren to collect and provide to markers the daily consumption customer data,
15 which would include peak day usage. Such data should be provide to all suppliers
16 that request it.

17 **VIII. VECTREN MUST OFFER NON-COMMODITY BILLING ON A NON-**
18 **DISCRIMINATORY BASIS**

19 **Q. WHAT ARE NON-COMMODITY SERVICES?**

20 A. Non-commodity billing allows CRNGS to bill customers for non-commodity
21 services and items such as warranty services, energy efficiency products (like
22 thermostats) and other items that are not directly related to natural gas supply.
23

24 **Q. HOW ARE NON-COMMMODITY SERVICES BILLED?**

1 A. Non-commodity services are either billed by the party providing the service, such
2 as the supplier, or can be billed by the party who is also rendering the bill for gas
3 commodity services to the customer. For all practical purposes, when dealing with
4 residential customers the utility is the billing entity. Vectren currently issues one
5 bill to the customer and that bill contains the Vectren distribution charges, along
6 with the supplier's gas supply charges. Non-commodity billing would also allow
7 non-commodity items such as warranty services, energy efficiency products (like
8 thermostats) and other items offered by gas suppliers to be billed by Vectren. My
9 understanding is that many distribution utilities in Ohio (Columbia Gas of Ohio,
10 Duke Energy Ohio, FirstEnergy, and AEP Ohio) including Vectren have the
11 capability to offer non-commodity billing.

12 **Q. IS VECTREN ABLE TO OFFER NON-COMMODITY BILLING**
13 **SERVICES CURRENTLY?**

14 A. Yes. Vectren currently provides non-commodity billing to at least one natural gas
15 supplier. All I am requesting is that such services be provided on a non-
16 discriminatory basis to all gas suppliers. The cost of any billing system
17 modifications required should be recovered through the CEP Rider proposed by
18 Vectren that I discussed earlier.

19 **Q. DOES VECTREN'S TARIFF ADDRESS NON-COMMODITY BILLING?**

20 A. I reviewed the Vectren tariff and it does not address non-commodity billing. I also
21 reviewed Vectren's proposed tariff redlines in these proceedings, and they also do
22 not address non-commodity billing.

23 **Q. DID EITHER THE STAFF OR VECTREN ADDRESS NON-COMMODITY**

1 **BILLING IN THE STAFF REPORT AND APPLICATION,**
2 **RESPECTIVELY?**

3 A. No. Both the Staff Report and Vectren's application (including the redlined tariffs)
4 are silent on non-commodity billing.

5 **Q. WHAT DO YOU RECOMMEND REGARDING THIS OMISSION?**

6 A. I recommend that the PUCO require Vectren to submit a proposed tariff addressing
7 non-commodity billing that ensures that the billing practice is available on a non-
8 discriminatory basis to all suppliers. At a minimum, the proposed tariff should
9 include terms and conditions that are not more restrictive than what Vectren is
10 allowing today in its service territory given that at least one supplier is using that
11 program. By filing the program as a proposed tariff, interested parties will have an
12 equal opportunity to participate in that proceeding. To avoid any delay in that tariff
13 submittal, I recommend that filing occur within 90 days of a PUCO order in this
14 proceeding.

15 **IX. VECTREN MUST OFFER FLEXIBLE BILLING OPTIONS**

16 **Q. WHAT ARE THE CURRENT BILLING OPTIONS OFFERED BY**
17 **VECTREN?**

18 A. Vectren only provides two billing options for suppliers in its service territory: Rate-
19 Ready Utility Consolidated Billing and Dual Billing (Schedule E-2.1, Sheet 52,
20 pages 3-4). Vectren's proposed tariff also restricts billing option changes to once
21 in any 36-month period for a Supplier (Schedule E-2.1, Sheet 52, page 3).

22 **Q. WHAT ARE EXAMPLES OF PRODUCTS OR SERVICES THAT ARE**
23 **UNABLE TO BE OFFERED TO CUSTOMERS DUE TO THE LACK OF**

1 **OTHER BILLING OPTIONS UNDER VECTREN'S TARIFF?**

2 A. Because customers generally prefer one bill versus two bills for natural gas service,
3 only having two billing options (Rate Ready Utility Consolidated Billing and Dual
4 Billing) prevents the use of products such as flat amount billing options (uniform
5 bill amount regardless of usage) and being able to provide credits on bills. Bill-
6 Ready Utility-Consolidated Billing would allow for those types of billing options
7 but that is not currently available in the Vectren territory. Supplier-consolidated
8 billing is also not available, leaving suppliers with having to use Rate-Ready
9 Utility- Consolidated Billing for customers that prefer a single consolidated bill.

10 **Q. DID THE STAFF REPORT ADDRESS THE LACK OF BILLING OPTIONS**
11 **OR VECTREN'S PROPOSED 36-MONTH LIMITATION ON SWITCHING**
12 **BILLING METHODS?**

13 A. No, the Staff Report makes no mention of billing options or the 36-month
14 limitation. That was an omission that the PUCO should correct by requiring
15 Vectren to implement changes to its current billing system to benefit the customer's
16 ability to receive new product options including:

- 17 • allowing a fixed bill through a rate-ready code;
- 18 • increasing rate-ready billing codes;
- 19 • allowing for bill-ready billing;
- 20 • permit suppliers to bill a rate based upon monthly NYMEX prices, plus or
21 minus a value; and
- 22 • permit suppliers to offer customers the opportunity to prepay the
23 commodity portion of the bill.

- 1 • Allow for a “zero price” rate-ready code, which would allow a Supplier to
2 submit a dual bill for a portion of its pool, while utilizing rate-ready billing
3 for the remainder.

4 The PUCO should require Vectren to use best efforts to implement the changes
5 within a certain time-period from an order. I suggest a reasonable time period
6 would be two-years, which would allow time for scoping, estimating and
7 implementing the billing options. The PUCO should also not approve Vectren’s
8 request to limit billing options changes to no more than every 36 months.

9 **X. CREDITWORTHINESS STANDARDS AND REQUIREMENTS**

10 **Q. HAVE YOU REVIEWED VECTREN’S PROPOSED TARIFF CHANGE**
11 **RELATED TO THE CREDITWORTHINESS STANDARDS AND**
12 **REQUIREMENTS?**

13 A. Yes, I have reviewed the Creditworthiness Standards and Requirements changes in
14 Schedule E-2.1, Sheet No. 20, page 3 of 3 and Sheet No. 23, page 3 of 3.

15 **Q. DO YOU AGREE WITH THOSE TARIFF CHANGES?**

16 A. No. Vectren’s new language appears to grant Vectren sole discretion over what is
17 considered sufficient creditworthiness, and is more general than the current
18 language. Vectren stated in Schedule E-3 (pages 20 and 26 pf 80) that the changes
19 were for improving clarity, but the general statements provide no detail over the
20 creditworthiness standards and yet emphasize the sole discretion granted to
21 Vectren. Vectren has not provided sufficient justification for the new language and
22 any reason why the current language is not sufficient. The PUCO should reject
23 these tariff revisions.

1 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

2 A. Yes.

In the Matter of the Application of Vectren	:	
Energy Delivery Ohio, Inc. for Approval of	:	Case No.18-0049-GA-ALT
An Alternative Rate Plan.	:	
In the Matter of the Application of Vectren	:	
Energy Delivery Ohio, Inc. for Approval of	:	Case No.18-0298-GA-AIR
<i>an Increase in Gas Rates.</i>	:	
In the Matter of the Application of Vectren	:	
Energy Delivery Ohio, Inc. for Approval of	:	Case No.18-0299-GA-ALT
An Alternative Rate Plan.	:	

<p>EXHIBITS</p> <p>OF</p> <p>JAMES L. CRIST, P.E.</p>
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ON BEHALF OF

THE RETAIL ENERGY SUPPLY ASSOCIATION

November 7, 2018

PARTIAL LIST OF REGULATORY EXPERIENCE OF JAMES L. CRIST

1. Duquesne Light Company, General Base Rate Increase, R-2018-3000124, Representing the Duquesne Industrial Intervenor
2. UGI Merger case, Docket A-2018-3000381, Representing the Natural Gas Supplier Parties
3. Columbia of PA General Base Rate Increase, Docket R-2018-2647577, Representing the Pennsylvania State University
4. Columbia of PA Gas Cost Increase, Docket R-2017-2591326, Representing the Pennsylvania State University
5. West Penn Power Company, General Base Rate Increase, Docket R-2016-2537359, Representing the Pennsylvania State University
6. Columbia of PA General Base Rate Increase, Docket R-2016-2529660, Representing the Pennsylvania State University
7. UGI Utilities General Base Rate Increase, Docket R-2015-2518438, Representing Dominion Retail, Inc., Shipley, Choice, LLC, Interstate Gas Supply, Inc., Amerigreen Energy, and Rhoads Energy
8. Columbia of PA General Base Rate Increase, Docket R-2015-2468056, Representing the Pennsylvania State University
9. West Penn Power Company, General Base Rate Increase, Docket R-2014-2428742, Representing the Pennsylvania State University
10. Herman Oil & Gas Company, General Base Rate Increase, R-2014-2414379, Representing Herman Oil & Gas Company
11. Columbia of PA General Base Rate Increase, Docket R-2014-2406274, Representing the Pennsylvania State University
12. Ameren Gas- General Base Rate Increase, Docket No. 13-0192, Representing Dominion Retail and Interstate Gas Supply of Illinois
13. Columbia of PA General Base Rate Increase, Docket R-2012-2321748, Representing the Pennsylvania State University, Dominion Retail, Interstate Gas Supply, and Shipley Energy
14. Columbia of PA Petition for Approval of a Distribution System Improvement Charge Docket R-2012-2338282, Representing the Pennsylvania State University
15. PUC PA Generic Investigation Regarding Gas-On-Gas Competition, Docket No. P-2011-2277868, Representing the Pennsylvania State University
16. Ameren Gas- General Base Rate Increase, Docket 11-0282 (Cons.), Representing Dominion Retail and Interstate Gas Supply of Illinois
17. WAPA- Electric Base Rate Case, Docket 575, June 2009, Representing Frenchman's Reef Marriott
18. WAPA- Water Base Rate Case, Docket 576, June 2009, Representing Frenchman's Reef Marriott
19. Public Service of New Mexico 2010 Base Rate Case, Informal rate design workshops pursuant to the stipulation in NMPRC Case No. 08-00273-UT, Representing City of Albuquerque
20. Public Service of New Mexico, Electric base case at Case No. 08-00273-UT, Representing City of Albuquerque
21. Public Service of New Mexico 2009 Renewable Energy Procurement Plan for 2010, Case No. 09-00260-UT, Representing City of Albuquerque and Santa Fe County
22. Public Service of New Mexico, Gas sale case at Case No. 08-00078-UT, Representing City of Albuquerque
23. UGI Utilities, Central Penn Gas, Penn Natural Gas, Gas Cost Increase, Docket No. R-2011-2238953, Representing Shipley Energy, Rhodes Energy, and CenterPoint Energy
24. UGI Utilities- Gas Division, Gas Cost Increase, Docket No. R-2010-2172933, Representing Shipley Energy
25. Columbia of PA General Base Rate Increase, Docket R-2010-2215623, Representing the Pennsylvania State University, Dominion Retail, Interstate Gas Supply, and Shipley Energy
26. Columbia of PA General Base Rate Increase, Docket R-2009-2149262, Representing the Pennsylvania State University, Dominion Retail, Interstate Gas Supply, and Shipley Energy
27. Columbia of PA General Base Rate Increase, Docket R-2008-2011621, Representing Hess Energy, Dominion Retail, Interstate Gas Supply, and Shipley Energy
28. Columbia of PA Gas Cost Increase, Docket R-2008-2028039, Representing Dominion Retail, Interstate Gas Supply, and Shipley Energy
29. PPL Electric Utilities Voluntary Purchase of Accounts Receivables Program and Merchant Function Charge, Docket No. P-2009-2129502
30. Nicor Gas Company, Provision of facilities and services and the transfer of assets between Nicor Gas Company and Nicor Inc., Docket No. 09-0301, Representing Dominion Retail
31. North Shore Gas and Peoples Gas Light and Coke Company, General Base Rate Increase, Dockets 09-0166 and 09-0167, Representing Dominion Retail, Interstate Gas Supply and Nicor Advanced Energy
32. Nicor Gas Company, Base Rate Increase, Docket No. 08-0363, Representing Interstate Gas Supply and Dominion Retail
33. North Shore Gas and Peoples Gas Light and Coke Company, General Base Rate Increase, Dockets 07-0241 and 07-0242, Representing Dominion Retail, Interstate Gas Supply and U.S. Energy Savings
34. WPS Resources, Peoples Energy, Peoples Gas Light and Coke Company, North Shore Gas Company, Application pursuant to Section 7-204 of the Public Utilities Act for authority to engage in a Reorganization,

Docket 06-0540, Representing Dominion Retail, Interstate Gas Supply, US Energy Savings, MxEnergy, and Direct Energy Services.

35. Allegheny Energy, Approval of Retail Electric Default Service Program and Competitive Procurement Plan, Docket No. P-2008-2021608, Representing the Pennsylvania State University
36. Allegheny Energy, Generation Rate Cap, Docket No. P-2007-2001828, Representing the Pennsylvania State University
37. Equitable Gas Company, Rate Increase, Docket R-2008-2029325, Representing Independent Oil & Gas Association and Hess Corp.
38. Equitable Gas Company and Peoples Gas, Merger Case, Docket A-122250F5000, Representing National Energy Marketers, Hess Corporation, and Constellation New Energy.

Natural Gas Customer Choice Programs in Ohio
Customer Enrollment Levels
As of September 2016

Residential Customer Enrollment				
Customer Choice Customers	Residential Customers			Percent Enrolled
	CHOICE	NON-CHOICE	TOTAL	
Columbia Gas of Ohio	541,835	754,962	1,296,797	41.8%
Duke Energy of Ohio	197,931	186,677	384,608	51.5%
Dominion East Ohio Gas	781,640	318,581	1,100,221	71.0%
Vectren Energy Delivery of Ohio	111,526	177,475	289,001	38.6%

Commercial / Industrial Customer Enrollment				
Customer Choice Program	Commercial / Industrial Customers			Percent Enrolled in CHOICE
	CHOICE	NON-CHOICE	TOTAL	
Columbia Gas of Ohio	60,828	49,415	110,243	55.2%
Duke Energy of Ohio	16,524	17,213	33,737	49.0%
Dominion East Ohio Gas	81,988	1,512	83,500	98.2%
Vectren Energy Delivery of Ohio	10,984	13,010	23,994	45.8%

Total Customer Enrollment				
Customer Choice Program	Total Customers			Percent Enrolled in CHOICE
	CHOICE	NON-CHOICE	TOTAL	
Columbia Gas of Ohio	602,663	804,377	1,407,040	42.8%
Duke Energy of Ohio	214,455	203,890	418,345	51.3%
Dominion East Ohio Gas	863,628	320,093	1,183,721	73.0%
Vectren Energy Delivery of Ohio	122,510	190,485	312,995	39.1%

CHOICE Customers

CHOICE customers include:

- Customers who have individually signed a contract or agreement with a Competitive Retail Natural Gas Supplier, and purchase gas commodity from that competitive supplier under the terms and conditions of the agreement or contract.
- Customers who are part of a gas aggregation group purchasing gas commodity from a Competitive Retail Natural Gas Supplier.

NON-CHOICE Customers

NON-CHOICE customers purchase natural gas under arrangements made by the local distribution company.

TOTAL Customers

TOTAL Customers is the sum of CHOICE and NON-CHOICE customers.

Percent Enrolled in CHOICE

Number of CHOICE customers divided by TOTAL Customers.

Note: CHOICE-ineligible customers (such as Percentage of Income Payment Plan (PIPP) customers) are included in both the "NON-CHOICE" and the "TOTAL" columns.

Source for the Total Column is the GEER monthly data report.

Source for the Choice column is the monthly Choice data sent to Jim by the LDCs

Natural Gas Customer Choice Programs in Ohio

Customer Enrollment Levels

As of September 2017

Residential Customer Enrollment				
Customer Choice Customers	Residential Customers			Percent Enrolled in CHOICE
	CHOICE	NON-CHOICE	TOTAL	
Columbia Gas of Ohio	601,899	703,487	1,305,386	46.1%
Duke Energy of Ohio	233,939	153,816	387,755	60.3%
Dominion East Ohio Gas	763,517	333,716	1,097,233	69.6%
Vectren Energy Delivery of Ohio	115,460	175,376	290,836	39.7%

Commercial / Industrial Customer Enrollment				
Customer Choice Program	Commercial / Industrial Customers			Percent Enrolled in CHOICE
	CHOICE	NON-CHOICE	TOTAL	
Columbia Gas of Ohio	63,923	43,152	107,075	59.7%
Duke Energy of Ohio	17,686	16,109	33,795	52.3%
Dominion East Ohio Gas	82,502	1,217	83,719	98.5%
Vectren Energy Delivery of Ohio	11,801	12,778	24,579	48.0%

Total Customer Enrollment				
Customer Choice Program	Total Customers			Percent Enrolled in CHOICE
	CHOICE	NON-CHOICE	TOTAL	
Columbia Gas of Ohio	665,822	746,639	1,412,461	47.1%
Duke Energy of Ohio	251,625	169,925	421,550	59.7%
Dominion East Ohio Gas	846,019	334,933	1,180,952	71.6%
Vectren Energy Delivery of Ohio	127,261	188,154	315,415	40.3%

CHOICE Customers

CHOICE Customers include:

- Customers who have individually signed a contract or agreement with a Competitive Retail
- Customers who are part of a gas aggregation group purchasing gas commodity from a Competitive Retail Natural Gas Supplier.

NON-CHOICE Customers

NON-CHOICE customers purchase natural gas under arrangements made by the local distribution

TOTAL Customers

TOTAL Customers is the sum of CHOICE and NON-CHOICE customers.

Percent Enrolled in CHOICE

Number of CHOICE customers divided by TOTAL Customers.

Note: CHOICE-ineligible customers (such as Percentage of Income Payment Plan (PIPP))

**SERVICE IMPROVEMENT UPDATE:**

Automated Meter Reading

To increase efficiency, enhance safety and improve overall service to our customers, Vectren is launching a two-year plan to install Automated Meter Reading (AMR) devices throughout its southeast and central Indiana service area.

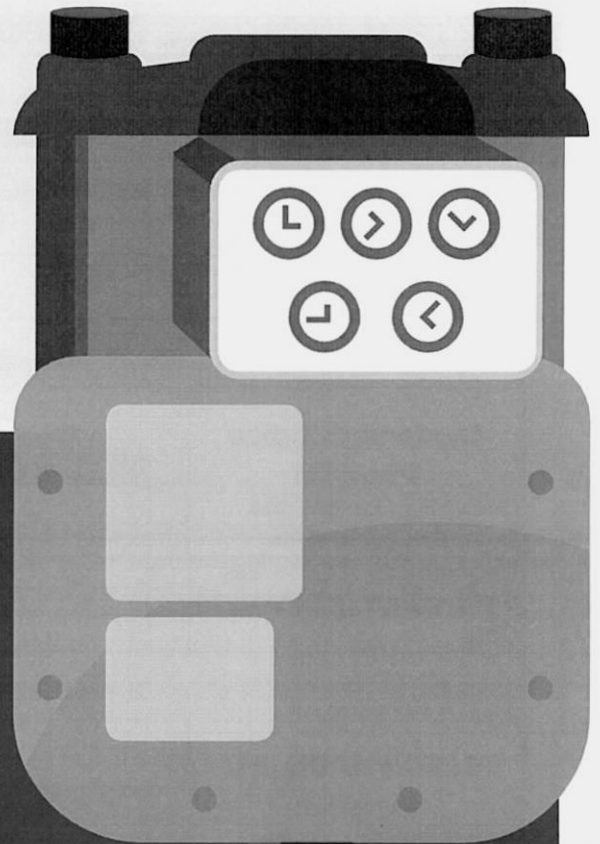
When completed, AMR will enable Vectren to obtain as many as 10,000 actual reads in a single route, compared with an average of 500 reads recorded per daily walking route.



WALKING ROUTE

500 Meters Per Day

AMR ROUTE

10,000 Meters Per Day**ANSWERS TO COMMON QUESTIONS ABOUT AMR ON BACK**

ANSWERS TO COMMON QUESTIONS ABOUT AMR

What is AMR?

AMR is Automated Meter Reading. This technology enables meters to be read using handheld devices or a mobile collector. AMR uses special devices known as Encoder Receiver Transmitters (ERT) which are installed on natural gas meters in order to transmit meter information via radio signals to handheld computers or mobile collectors.

Why is Vectren upgrading my meter?

AMR-equipped meters will allow us to more safely and efficiently gather meter readings and help eliminate the need to estimate readings. By allowing meter readers to gather readings from a nearby vehicle or from the curb, AMR allows our meter readers to avoid many common obstacles, such as severe weather, locked gates, tripping hazards and animal interference.

Is AMR the same thing as a "smart meter"?

No. AMR-equipped meters transmit data using one-way communication. This technology is different from two-way meters, which are sometimes referred to as "smart meters." Smart meters receive and transmit information between the meter and the utility on a continual basis, whereas AMR-equipped meters will allow us to gather meter readings for normal monthly billing from a nearby vehicle or from the curb.

What kind of information is being transmitted by the meter? Is it secure?

No personal information is transmitted by the meter. Your normal monthly meter reading is collected and the usage information is used to compute your monthly bill.

Are other utilities using AMR meters?

Yes. Many water, gas and electric utilities are using AMR technology for meter reading.

Do the new meters pose any safety concerns related to radio frequency exposure?

No. AMR-equipped meters are powered by a battery and produce low-powered radio frequency (RF) exposures that are far lower than the guidelines established by the Federal Communications Commission (FCC) and have not been shown to pose any risk to human health.

Comparison of RF Levels from Various Sources

Source	Distance	Exposure Level (in microwatts per square centimeter)
Microwave Oven	Two in. from door	5
Cellular Phone	At ear	1-5
Radio/TV Broadcast		0.000005-0.001
Wireless Network Signal	Three ft. from router	0.0002-0.001
AMR Meter	10 ft.	0.000009

Source: Electric Power Research Institute (EPRI), Radio Frequency Exposure Levels from Smart Meters (November 2010)

How long will the ERT last?

The life expectancy for the battery in the ERT is approximately 15-20 years.

How long will the installation take?

The installation process is very quick and in many cases can take 10 minutes or less.

Who will install my new meter?

Installations will be completed by a Vectren subcontractor. The work

crews will carry photo identification, wear uniforms and drive marked vehicles. As always, if you are unsure of the identity of anyone claiming to be a Vectren employee or contractor, please call 1-800-227-1376.

Will there be any changes or interruptions to my service?

Service for most Vectren natural gas customers will not be disrupted. However, some gas meter models will not accept the new technology and a new meter will need to be installed. If this is the case, you will be contacted by a Vectren subcontractor to arrange the meter exchange.

Will there be any changes to the days of service on my bill or monthly bill due date?

As Vectren transitions from walking meter reading to mobile data collection, many customers will see changes to their monthly bill due date. This will occur as small walk-by meter routes transition to larger mobile drive-by routes. As this occurs, Vectren is seeking to minimize changes that affect the monthly bill due date and the days of service on your bill. Any changes will be communicated to you via a bill message on the statement when the change occurs. For those that experience a significant change in due date or a bill that varies significantly from the normal 30 days of service, you will receive a letter of explanation and if the bill significantly exceeds the normal 30 days of service, you may request a payment arrangement if this results in a bill amount that is higher than normal. It is possible that you may experience more than one due date change during this process as several routes are merged into single consolidated routes. Once the larger route is established, the billed days of service will return to a normal level, which is approximately 30 days.

What will the new meters look like?

The gas meter will look the same. Only an attachment will be added to the meter.

Is there an additional charge to the customer for this upgrade?

There is no additional charge to you for this upgrade.

Is there anything I need to do?

While it is not necessary for you to be home for the installation of the ERT, to make it safer for the work crews and expedite the process, please keep pets indoors during the exchange. A crew member will not enter a yard with an unrestrained pet. Please also make sure that the path to the meter and area around the meter is clear. If your meter is not accessible, you will be contacted by a technician to schedule an appointment for the retrofit.

What if my meter is located inside my home or business?

Similar to the normal meter reading process, a technician will schedule an appointment to access your meter and complete the work required should special access be necessary.

Does this mean that meter readers will not be coming on my property anymore?

There may be occasions when a Vectren technician or subcontractor will need access to the meter for maintenance, but access to the meter for routine readings will no longer be necessary.

When will you be upgrading my meter?

Installations will begin in August 2015 in Indiana and proceed through 2018, ending in Vectren's Ohio service area. You will receive a message on your Vectren bill in advance of your meter upgrade.

How will this upgrade impact local jobs?

No Vectren job loss will occur as a result of this upgrade. Approximately 45-50 people will be hired by the subcontractor(s) to complete the installations.

CERTIFICATE OF SERVICE

The Public Utilities Commission of Ohio's e-filing system will electronically serve notice of the filing of this document on the parties referenced on the service list of the docket card who have electronically subscribed to the case. In addition, the undersigned certifies that a courtesy copy of the foregoing document is also being served (via electronic mail) on the 7th day of November 2018 upon all persons/entities listed below:

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