

BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke Energy Ohio, Inc., for an Increase in Gas Rates.)	Case No. 12-1685-GA-AIR
)	
In the Matter of the Application of Duke Energy Ohio, Inc., for Tariff Approval.)	Case No. 12-1686-GA-ATA
)	
In the Matter of the Application of Duke Energy Ohio, Inc., for Approval of an Alternative Rate Plan for Gas Distribution Service.)	Case No. 12-1687-GA-ALT
)	
In the Matter of the Application of Duke Energy Ohio, Inc., for Approval to Change Accounting Methods.)	Case No. 12-1688-GA-AAM
)	

DIRECT TESTIMONY OF

JAMES E. MEHRING

ON BEHALF OF

DUKE ENERGY OHIO, INC.

- | | |
|---------------|--|
| <u> X </u> | Management policies, practices, and organization |
| <u> </u> | Operating Income |
| <u> </u> | Rate Base |
| <u> </u> | Allocations |
| <u> </u> | Rate of Return |
| <u> </u> | Tariffs |
| <u> </u> | Other |

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TABLE OF CONTENTS

	<u>PAGE</u>
I. INTRODUCTION AND PURPOSE	1
II. GAS OPERATIONS BUSINESS	3
A. GAS RESOURCES.....	4
B. GAS ENGINEERING	6
C. GAS FIELD AND SYSTEMS OPERATIONS.....	7
D. GAS CUSTOMER ACCOUNTS AND PROJECTS.....	9
E. GAS COMPLIANCE AND TRAINING.....	10
F. GAS PERFORMANCE SUPPORT	10
III. SAFETY, RELIABILITY, AND EFFICIENCY INITIATIVES	11
IV. MAJOR DEVELOPMENTS IN DUKE ENERGY OHIO'S GAS BUSINESS SINCE 2007.....	14
V. ENHANCEMENTS TO GAS CUSTOMER CHOICE PROGRAM.....	15
VI. CHALLENGES FACING THE NATURAL GAS DELIVERY SYSTEM... 	18
VII. NEW SERVICES AND TARIFFS	19
A. NATURAL GAS VEHICLES	20
B. CO-FIRED GENERATION	23
C. FACILITY RELOCATION – MASS TRANSPORTATION	26
VIII. CONCLUSION	30

I. INTRODUCTION AND PURPOSE

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is James E. Mehring, and my business address is 139 East Fourth Street,
3 Cincinnati, Ohio 45202.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Duke Energy Business Services LCC (DEBS) as Vice
6 President of Gas Operations for Duke Energy Ohio, Inc., (Duke Energy Ohio or
7 Company) and Duke Energy Kentucky, Inc. (Duke Energy Kentucky) (hereinafter
8 referred to as Gas Operations). DEBS provides various administrative and other
9 services to Duke Energy Ohio and other affiliated companies of Duke Energy
10 Corporation (Duke Energy).

11 **Q. PLEASE BRIEFLY SUMMARIZE YOUR EDUCATIONAL**
12 **BACKGROUND AND PROFESSIONAL EXPERIENCE.**

13 A. I received a Bachelor of Science degree in Business Administration from Indiana
14 Wesleyan University and a Masters of Business Administration degree from
15 Indiana University.

16 I joined PSI Energy, Inc., (now known as Duke Energy Indiana, Inc.) in
17 1977 as a lineperson. Since that time, I have held various positions of increasing
18 responsibility in Duke Energy's regulated business units, which are commonly
19 referred to as U.S. Franchised Electric and Gas. Prior to being promoted to my
20 current position in June 2010, I held numerous management positions in the
21 electric field operations organization, directing line construction and maintenance,

1 substation construction and maintenance, electrical system operations, safety and
2 technical training, and engineering.

3 **Q. PLEASE SUMMARIZE YOUR RESPONSIBILITIES AS VICE**
4 **PRESIDENT OF GAS OPERATIONS.**

5 A. I direct the day-to-day natural gas operations of Duke Energy Ohio and its
6 subsidiary, Duke Energy Kentucky. In this role, I am responsible for natural gas
7 distribution and transmission operations (including construction and
8 maintenance), gas engineering, gas resources, gas customer accounts and projects,
9 and performance and compliance management.

10 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC**
11 **UTILITIES COMMISSION OF OHIO?**

12 A. Yes. Most recently, I testified in Case No. 09-1946-EL-RDR.

13 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THESE**
14 **PROCEEDINGS?**

15 A. The purpose of my testimony is to provide the Public Utilities Commission of
16 Ohio (Commission) with an overview of the Company's natural gas business. I
17 also discuss Gas Operations' major safety, reliability, and efficiency initiatives
18 relevant to the services provided in Ohio. I explain major developments in Duke
19 Energy Ohio's Gas Operations business since the Company's last general gas rate
20 case and identify the new services being proposed in these proceedings. I also
21 discuss recent changes to Duke Energy Ohio's gas customer choice program.
22 Finally, I testify to the challenges facing Duke Energy Ohio's natural gas
23 operations.

II. GAS OPERATIONS BUSINESS

1 **Q. PLEASE DESCRIBE DUKE ENERGY OHIO'S GAS OPERATIONS**
2 **DEPARTMENT.**

3 **A.** Duke Energy Ohio's Gas Operations Department is organized into the following
4 functional groups: Gas Resources; Gas Engineering; Gas Field and Systems
5 Operations; Gas Customer Accounts and Projects; Gas Compliance and Training;
6 and Gas Performance Support, each of which I discuss below in detail with regard
7 to the Ohio operations.

8 These functional groups enable the excellent natural gas services that
9 Duke Energy Ohio has provided to its customers over the past 175 years. The Gas
10 Operations Department of Duke Energy Ohio employs approximately 300
11 individuals. Specific to the Ohio operations, Duke Energy Ohio serves a relatively
12 densely populated territory that, although not heavily industrialized, includes a
13 fairly diverse mix of industrial customers. The Company currently provides
14 natural gas distribution service to approximately 420,000 customers in Hamilton,
15 Butler, Clermont, Warren, Brown, Adams, Clinton, Montgomery, and Highland
16 counties in southwestern Ohio. Duke Energy Ohio has approximately 5,748 miles
17 of gas mains on its natural gas distribution and transmission system. The capital
18 expenditures for Duke Energy Ohio's Gas Operations in 2011 were approximately
19 \$116.2 million.

A. GAS RESOURCES

1 **Q. PLEASE DISCUSS THE GAS RESOURCES FUNCTION.**

2 A. Gas Resources is responsible for obtaining adequate natural gas supplies and
3 interstate pipeline transportation services at a reasonable cost for Duke Energy
4 Ohio to supply to its customers. Duke Energy Ohio purchases and delivers natural
5 gas to more than 270,000 gas sales customers and delivers customer-owned gas
6 supplies to another 150,000 customers under firm and interruptible transportation
7 service tariffs.

8 During the 2010-2011 winter period, Duke Energy Ohio purchased its gas
9 supply under firm supply contracts with established marketers and producers that
10 manage diversified natural gas supply and energy portfolios. These firm
11 agreements are composed of a base supply component, which assures a
12 continuous supply designed to meet minimum customer demands, and a swing
13 supply component. Swing supply provides Duke Energy Ohio flexibility to
14 accommodate daily temperature-sensitive fluctuations in customer demand. Duke
15 Energy Ohio sources its gas through a competitive bidding process to enable it to
16 obtain the optimal mix of suppliers and prices for customers. One very important
17 aspect of this concept is that, via the Gas Cost Recovery (GCR) mechanism, Duke
18 Energy Ohio adds no additional costs in the form of markups to any of the gas
19 acquired for its customers.

20 Duke Energy Ohio contracts with a diverse group of interstate pipeline
21 companies for firm transportation and storage services. Engaging a diverse group
22 of interstate pipeline companies allows Duke Energy Ohio to negotiate lower

1 transportation rates than it otherwise would be able to obtain from a smaller group
2 of transportation providers.

3 Duke Energy Ohio uses management techniques such as “expected value
4 analysis” and *Monte Carlo* simulation to manage its gas portfolio. Duke Energy
5 Ohio has successfully transitioned from being a pre-Order 636¹ pipeline-supply
6 dependent customer to an independent, forward-looking buyer using a diversified
7 gas commodity and pipeline services portfolio to manage gas costs.

8 Duke Energy Ohio has used asset management agreements (AMA), where
9 the Company has contracted with a third party to manage gas supply contracts,
10 interstate pipeline transportation contracts, and storage gas. The asset manager
11 credits a monthly fee to Duke Energy Ohio that is shared with customers through
12 the monthly GCR rate. The asset management process has allowed Duke Energy
13 Ohio to optimize the value of these assets. Duke Energy Ohio also manages the
14 volatility of gas prices through the use of a hedging program that uses fixed,
15 capped, or collared prices for physical delivery. Additionally, Duke Energy Ohio
16 revises its GCR price monthly in order to send accurate price signals to its
17 customers and to true up any over over- or under-recovery of its costs. Again, the
18 Company makes no profit or loss on the sale of gas via Rider GCR – it only
19 passes through the actual cost of gas it procures for its customers.

¹ *In Re Pipeline Service Obligations and Revisions to Regulations Governing Self-Implementing Transportation Under Part 284 of the Commission's Regulations*, Docket No. RD 91-11-000 (FERC Order No. 636).

B. GAS ENGINEERING

1 **Q. PLEASE DISCUSS THE GAS ENGINEERING FUNCTION.**

2 A. Gas Engineering's primary responsibilities are to: (1) provide engineering
3 services, including policies, procedures, job design, and budgeting, for the
4 installation, operation, and maintenance of gas facilities; and (2) ensure system
5 safety, system reliability, and compliance with applicable laws. Gas Engineering
6 is also responsible for developing and managing both the capital budget and the
7 Integrity Management Programs. In addition, Gas Engineering has responsibility
8 for nearly all aspects of the Accelerated Main Replacement Program (AMRP),
9 excluding construction.

10 Gas Engineering includes the Systems Engineering and Planning group,
11 which performs system pressure and flow modeling, and analysis and design for
12 such things as city gate stations, distribution stations, and customer facilities.
13 This group also evaluates and selects construction materials, determines the best
14 installation practices, and designs and programs the gas Supervisory Control and
15 Data Acquisition Systems (SCADA). SCADA is a software tool that enables the
16 Company's engineers and Gas Control to monitor the status of the distribution
17 system and develop optimal distribution system design plans.

18 Gas Engineering also includes the Pipeline Engineering and Drafting
19 group, which provides engineering expertise for the construction, operation, and
20 maintenance of gas pipelines. The group manages the procurement of contractor
21 services for engineering and drafting work for the installation of mains and
22 services and also coordinates projects with governmental and private authorities.

1 Additionally, Gas Engineering includes Mapping and Records Resources
2 and Corrosion Engineering and Control. The Mapping and Records Resources
3 group maintains system drawings, as well as those records necessary for
4 compliance with applicable regulations, U.S. Department of Transportation (U.S.
5 DOT) audits, and the completion of subsequent work on the gas system. The
6 Corrosion Engineering and Control group manages a cathodic protection program
7 for approximately 3,400 miles of coated steel pipeline and appurtenances.

C. GAS FIELD AND SYSTEMS OPERATIONS

8 **Q. PLEASE DISCUSS THE GAS FIELD AND SYSTEMS OPERATIONS**
9 **FUNCTION.**

10 A. Gas Field and Systems Operations is primarily responsible for installing,
11 operating, and maintaining transmission and distribution facilities for the delivery
12 of natural gas from the supplier and/or the Company's propane/air plant to the
13 customer in a safe, reliable, and economic manner. Gas Field Operations is also
14 responsible for emergency response and monitoring and for maintenance work on
15 Duke Energy Ohio's system, including but not limited to leak surveys, valve
16 inspections, regulator inspections, pipeline patrol, and leak tracking and repair.
17 Additionally, Gas Field Operations participates in the benchmarking program of
18 the American Gas Association (AGA) in order to learn from the experiences of
19 other utilities and thereby improve, where applicable, the provision of safe and
20 reliable service to customers at a reasonable cost.

21 Gas System Operations is also responsible for operating and maintaining the
22 Company's propane plants and propane storage facilities and for the Company's

1 various compliance programs, such as the regulator/relief valve and control valve
2 inspections. Gas System Operations assists in the collection of corrosion compliance
3 data. Gas System Operations also maintains and assists with the operation of all
4 pressure regulating facilities and maintains the system integrity of all pressures
5 throughout our natural gas distribution system.

6 The Gas Field and Systems Operations group also includes Contractor
7 Construction Management. In this respect, the group is primarily focused on the
8 continued timely and efficient implementation of the AMRP, using competitively
9 bid external resources. Duke Energy Ohio witness Gary J. Hebbeler elaborates on
10 the use of contractors in respect of the AMRP and resulting cost savings.

11 The Contractor Construction Management group is also responsible for the
12 inspection, supervision, and construction of gas facility installation, replacement,
13 and street improvement projects that are completed by outside contractors.

14 Gas Field and Systems Operations also includes the Gas Field Operations
15 Division, which has responsibility for the maintenance and repair of gas facilities, as
16 well as compliance programs such as leak surveys and leak repair/evaluation. The
17 specific responsibilities of Field Operations include: (1) the installation, operations,
18 and maintenance of transmission and distribution facilities, including mains,
19 services, and regulators; (2) completion of leakage detection surveys and other U.S.
20 DOT compliance programs; and (3) responding to gas emergencies, and customers'
21 requests for service.

22 Gas Field and Systems Operations also includes the Gas Control group,
23 which is responsible for the continuous operation of the gas pipeline system, from

1 transmission pressure delivery at the city gate stations to the distribution pressures
2 throughout the piping network. Control room personnel monitor and take
3 appropriate action to control gas pressures, flows, and odorant injection rates to
4 ensure safe, reliable, and continuous delivery of natural gas to Duke Energy Ohio
5 customers in a cost effective manner.

D. GAS CUSTOMER ACCOUNTS AND PROJECTS

6 **Q. PLEASE DISCUSS THE GAS CUSTOMER ACCOUNTS AND PROJECTS**
7 **FUNCTION.**

8 A. The Gas Customer Accounts and Projects group provides customer account
9 management and technical analyses and performs marketing functions to
10 maximize revenue, facilitate gas operations activities with outside agencies, and
11 help ensure the viability of large customer gas transportation programs. This
12 group manages Duke Energy Ohio's large customer gas transportation programs,
13 and, in that process, routinely consults with customers on matters such as gas
14 supply and transportation options, gas market fundamentals and technical
15 information, usage requirements, balancing options, contracts, measurement,
16 telemetering, and billing set-up, and billing for variances from requirements, all in
17 accordance with the Company's Commission-approved tariffs. Gas Customer
18 Accounts and Projects also manages the rate Interruptible Transportation (IT) gas
19 curtailment program, which includes the management of any required gas
20 curtailment. Gas Customer Accounts and Projects also performs a quality
21 assurance function with respect to the billing of large volume gas customers that
22 involves resolution of complex billing adjustments involving third-party

1 agreements for the transportation of gas, analyzing metering reports for
2 indications of equipment malfunction, and resolving any issues that may arise.

E. GAS COMPLIANCE AND TRAINING

3 **Q. PLEASE DISCUSS THE GAS COMPLIANCE AND TRAINING**
4 **FUNCTION.**

5 A. Gas Compliance and Training is responsible for the development and execution of
6 the training programs required to comply with the U.S. DOT's Pipeline and
7 Hazardous Materials Safety Administration (PHMSA) Operator Qualification
8 training requirements. Gas Compliance and Training maintains all training records
9 and assists in the development and dissemination of public awareness and safety
10 programs. Gas Compliance and Training also ensures compliance with all applicable
11 codes and regulations promulgated by PHMSA and the Commission, as well as any
12 other regulatory agency. Gas Compliance and Training supports the development of
13 process improvement programs. Gas Compliance ensures that all field employees
14 have the relevant information and regulations at hand to enable safe operation.

F. GAS PERFORMANCE SUPPORT

15 **Q. PLEASE DISCUSS THE GAS PERFORMANCE SUPPORT FUNCTION.**

16 A. Gas Performance Support provides overall financial and operational support for Gas
17 Operations. The responsibilities of the Gas Performance Support group include: (1)
18 managing, coordinating, and performing project management functions such as
19 the evaluation and analysis of process improvements; (2) performing various
20 financial analyses, including but not limited to budget analysis; (3) serving as the
21 liaison to Duke Energy's corporate financial organization on financial matters; (4)

1 managing, coordinating, and performing financial and analytical requirements
2 relating to the AMRP; and (5) monitoring and reporting on Gas Operations'
3 performance against approved goals and objectives.

III. SAFETY, RELIABILITY, AND EFFICIENCY INITIATIVES

4 **Q. PLEASE DESCRIBE GAS OPERATIONS' MAJOR SAFETY AND**
5 **RELIABILITY INITIATIVES.**

6 A. All of the activities within Gas Operations incorporate safety and reliability
7 considerations. For example, Gas Resources purchases gas that meets current
8 pipeline quality standards. Gas Engineering designs and installs the Duke Energy
9 Ohio natural gas system in accordance with applicable safety codes promulgated
10 in Title 49 of the Code of Federal Regulations and by the American Society of
11 Testing Materials. Gas Field and System Operations follows PHMSA and
12 Commission safety regulations when installing, operating, and maintaining
13 transmission and distribution facilities. And this deliberate focus on safety and
14 reliability is also demonstrated by Gas Operations' other functional groups.

15 In addition to these daily safety measures, Gas Operations has three
16 ongoing, major programs and another proposed program that focus on safety and
17 reliability, all of which are relevant to these proceedings. The first ongoing
18 program is Duke Energy Ohio's very successful AMRP, which is designed to
19 replace the Company's aged cast iron and bare steel mains and associated services
20 on an accelerated basis. As Duke Energy Ohio witness Hebbeler explains, the
21 AMRP has significantly reduced leak repairs on Duke Energy Ohio's gas
22 distribution system and the costs associated with such repairs. Mr. Hebbeler

1 further details the Company's continued, effective management of the AMRP, as
2 well as the proposal to relocate eligible interior natural gas meters to an external
3 location for those services included in the remaining term of the AMRP.

4 The second, ongoing, major program is the Accelerated Riser
5 Replacement Program (RRP), which is designed to replace certain types of
6 service head adapter-style risers that have been associated with riser leaks. Mr.
7 Hebbeler also discusses this program, which will be completed this year, and the
8 Company's effective management of it.

9 The final, ongoing, major program is the Integrity Management Program,
10 which is a comprehensive set of procedures that now includes both the
11 transmission and distribution systems. The purpose of these procedures is to
12 ensure that the transmission and distribution pipelines remain structurally sound
13 and in compliance with newly enacted federal legislation and regulations. Mr.
14 Hebbeler describes these programs in detail in his Direct Testimony.

15 As also discussed by Mr. Hebbeler, Duke Energy Ohio is proposing a new
16 program that is also intended to enable the continued, safe operation of the
17 Company's natural gas system. This proposal includes the accelerated service
18 replacement program and the assumed ownership of curb-to-meter services for
19 certain services not included in the AMRP.

20 **Q. HOW HAS GAS OPERATIONS PERFORMED ON ITS MAJOR SAFETY**
21 **AND RELIABILITY MEASURES?**

22 A. Duke Energy Ohio has consistently performed in the top quartile according to
23 AGA reporting criteria for Number of Outages Affecting Multiple Customers per

1 1,000 customers in 2007, 2008, 2009, and 2010. Duke Energy Ohio was honored
2 as an industry leader in employee safety through its being awarded the 2011 AGA
3 Safety Achievement Award for achieving the lowest DART (Days Away,
4 Restricted, or Transferred) incident rate among medium to large sized local
5 distribution companies.

6 **Q. PLEASE DISCUSS THE COMPANY'S EFFICIENT MANAGEMENT OF**
7 **ITS GAS OPERATIONS BUSINESS.**

8 A. Duke Energy Ohio has aggressively investigated and, where justified,
9 implemented new products, technologies, and work methods to increase its
10 productivity. Duke Energy Ohio also participates in the AGA's Best Practices
11 Benchmarking Program. In this program, approximately anywhere from 60-80
12 gas distribution companies from the United States and Canada routinely
13 benchmark three to five distribution operations topics each year. Duke Energy
14 Ohio has implemented process improvements and utilized new technology,
15 materials, and equipment as a result of what it has learned through participating in
16 this program. Similarly, Duke Energy Ohio shares its practices with the other
17 participating AGA members. As a result of this information exchange, Duke
18 Energy Ohio was recognized as a unique performer due to the AMRP and was
19 selected to present at the AGA's Distribution Best Practices Roundtable for Main
20 and Service Replacements in both 2007 and 2010. In addition, Duke Energy Ohio
21 was selected to present at the AGA's Best Practices Roundtable for Leak
22 Management in 2011, based on Duke Energy Ohio's top quartile performance in
23 the following areas: (1) jurisdictional leaks found by leak survey per total

1 jurisdictional leaks reported; (2) total leak survey cost per mile of mains and
2 services surveyed; (3) service repair labor hours per service leak repaired; and (4)
3 leak repair total cost per leak repaired.

IV. MAJOR DEVELOPMENTS IN DUKE ENERGY OHIO'S
NATURAL GAS BUSINESS SINCE 2007

4 **Q. WHAT MAJOR DEVELOPMENTS IN DUKE ENERGY OHIO'S GAS**
5 **OPERATIONS BUSINESS HAVE OCCURRED SINCE ITS LAST GAS**
6 **BASE RATE CASE WAS FILED IN 2007?**

7 A. Duke Energy Ohio's Gas Operations business has had some major
8 accomplishments since its last gas rate case was filed in 2007. Duke Energy Ohio
9 has made substantial progress toward completing the AMRP after the
10 Commission re-approved the program in 2007. And the Company is positioned to
11 complete the RRP this year. Additionally, Duke Energy Ohio completed a major
12 infrastructure investment with the installation of a new seventeen-mile
13 transmission pipeline between Foster, Kentucky, and Bethel, Ohio, in 2008. Duke
14 Energy Ohio witness Hebbeler details this project in his Direct Testimony.

15 Additionally, the Company continues with the timely and efficient
16 deployment of its grid modernization program, which is intended to produce,
17 among other things, operating efficiencies and enhanced customer and utility
18 information and communication. Duke Energy Ohio witness Peggy A. Laub
19 provides further detail on the grid modernization program and associated Rider
20 AU (advanced utility rider).

21 Subsequent to the Company's last natural gas rate case in 2007, efforts
22 commenced to remediate two former manufactured gas plant (MGP) sites. Duke

1 Energy Ohio witness Andrew Middleton, Ph.D., provides a history of MGPs and
2 Company witness Jessica Bednarcik details the remediation efforts to date.

V. ENHANCEMENTS TO GAS CUSTOMER CHOICE PROGRAM

3 **Q. HAS DUKE ENERGY OHIO MADE ANY RECENT CHANGES TO ITS**
4 **GAS CUSTOMER CHOICE PROGRAM?**

5 A. Yes. In the Stipulation and Recommendation that served to resolve the
6 Company's last gas rate case, filed under Case No. 07-589-GA-AIR, *et al.*, Duke
7 Energy Ohio agreed to convene a collaborative process to explore the following
8 two issues: (1) whether to implement an auction to supply a standard service offer
9 (SSO); and (2) whether any of the revenues from the AMA should be credited to
10 participants in the customer choice program. Pursuant to this commitment, the
11 Natural Gas Collaborative was formed and its findings were filed with the
12 Commission on May 27, 2009. As these findings confirmed, the Natural Gas
13 Collaborative concluded that it would not be in the best interest of customers for
14 Duke Energy Ohio to exit the gas merchant function and institute an auction
15 process.

16 As a result of the collaborative effort, the Company agreed to allocate a
17 portion of the asset management fees to choice customers, based on the fact that
18 choice customers pay for a portion of storage demand charges under either Rider
19 FBS (firm balancing service rider) or Rider EFBS (enhanced firm balancing
20 service rider). Beginning in September 2009, a portion of the asset management
21 fee has been allocated to choice customers and credited to them through the
22 Contract Commitment Cost Rider.

1 **Q. GIVEN THE SUCCESSFUL AUCTIONS CONDUCTED BY THE**
2 **COMPANY IN RESPECT OF ITS ELECTRIC SSO, DOES DUKE**
3 **ENERGY OHIO CONTINUE TO BELIEVE THAT IT SHOULD REMAIN**
4 **IN THE GAS MERCHANT BUSINESS AND NOT INSTITUTE AN**
5 **AUCTION PROCESS FOR ITS RETAIL NATURAL GAS CUSTOMERS?**

6 **A. Yes.**

7 **Q. PLEASE EXPLAIN.**

8 **A. To appreciate why Duke Energy Ohio does not see the benefit to its customers of**
9 **exiting the gas merchant function, it is important to compare pricing for natural**
10 **gas and electric generation.**

11 Prior to January 1, 2012, the Company provided an SSO for electric
12 customers using its own generation assets. As such, the rates reflected the costs to
13 effectively dedicate those assets to retail SSO customers. Beginning in January
14 2012, however, the Company now relies upon competitive auctions to procure the
15 supply needed to serve the retail SSO load. As a result, the retail SSO price for
16 electric customers is now predicated upon the market.

17 On the other hand, Duke Energy Ohio has always provided gas service at
18 the wholesale market price without any markup or return. And as the Company
19 currently procures the natural gas commodity on behalf of customers and sells
20 that gas at cost through the GCR mechanism, customers already are, and have
21 been, receiving the natural gas commodity from Duke Energy Ohio at the lowest
22 possible price determined by the wholesale market. Thus, in the long run,
23 customers would likely receive no benefit in terms of a lower price in the natural

1 gas commodity should Duke Energy Ohio exit the merchant function and
2 implement auctions for natural gas supply.

3 Furthermore, such a change in structure would impose additional costs
4 upon customers that are not necessary for realizing market-based rates and for
5 which there is no assurance that resulting rates would be lower than the current
6 rates reflected in the GCR mechanism.

7 It must be recognized that implementing an auction process is not without
8 administrative expense. Indeed, the auction structure, including supporting
9 technology, would need to be developed, with the assistance of a dedicated
10 auction manager and Commission-retained consultants. The fees associated with
11 conducting the auctions would persist throughout the auction process. Due to the
12 Company's hedging program, as well as the hedging practices of third-party
13 suppliers, at any given point in time it is possible that a third-party supplier could
14 provide a lower price to customers. However, given that the Company does not
15 include additional fees in its natural gas commodity prices and that it has a well-
16 established gas purchasing process, it has historically yielded low, market-based
17 prices. Duke Energy Ohio does not believe customers will be likely to receive
18 even lower prices through a formalized auction process.

19 Finally, it is important to remember that customers are not precluded from
20 seeking a better price or pricing structure from a competitive supplier. For these
21 reasons, Duke Energy Ohio does not believe customers can be assured of any
22 better pricing or pricing options should the current procurement process be
23 replaced with auctions.

**VI. CHALLENGES FACING THE NATURAL
GAS DELIVERY SYSTEM**

1 **Q. PLEASE DESCRIBE THE CHALLENGES THE COMPANY IS FACING**
2 **WITH RESPECT TO ITS NATURAL GAS DELIVERY SYSTEM.**

3 A. The challenges confronting Gas Operations derive, in large part, from increasing
4 regulation. The most recent example is the enactment of the Pipeline Safety,
5 Regulatory Certainty, and Jobs Creation Act of 2011. Numerous provisions of this
6 law require compliance with new regulations, and mandate studies and reports
7 that must be made to the PHMSA. The newly enacted regulations require, *inter*
8 *alia*, that Duke Energy Ohio conduct an inventory of all its gas transmission and
9 distribution pipeline and provide certain specified reports to PHMSA. Such
10 additional regulatory requirements are costly and resource intensive. Moreover, it
11 is unclear what additional requirements are forthcoming. The regulatory burden
12 imposed by this new law is significant.² The increased regulation is likely
13 intended to ensure that the natural gas industry, as a whole, operates in a safe and
14 prudent manner and such an intent is understood. Duke Energy Ohio has provided
15 gas service to its customers in a safe, reliable, and efficient manner for over 175
16 years. But the increased regulation has required, and will continue to require,
17 Duke Energy Ohio to review its operating procedures with an increased scrutiny
18 to ascertain compliance with applicable regulation or risk the imposition of
19 substantial monetary penalties.

20 Along with increased regulation comes increased review. Indeed, the audit
21 process has become more protracted. Although the Company historically

² Paulson, S. Lawrence, "*The Letter of the Law*," American Gas The Monthly Magazine of the American Gas Association, May 2012.

1 performs well in the audit process, these changes can correspond with increased
2 cost.

3 Importantly, not all new or recent regulation has resulted in Duke Energy
4 Ohio having to alter its operating and maintenance procedures. And the AMRP
5 serves as an excellent example in this regard. The natural gas pipeline industry, as
6 a whole, now has a concentrated focus on replacement programs. Because the
7 Company initiated its AMRP in 2000, it remains a leader in connection with such
8 an initiative and has not been compelled to unexpectedly implement a
9 comprehensive and resource-dependent replacement program.

10 In addition to these industry-specific challenges, Duke Energy Ohio has
11 realized the impacts of the economic downturn and, consequently, reductions in
12 load. Businesses have closed; new home construction has declined. And
13 customers are implementing conservation measures to reduce their utility costs.
14 Yet, despite these economic pressures, Duke Energy Ohio must continue to
15 operate its natural gas distribution system and fulfill its goal of providing
16 customers with safe, reliable, and reasonably priced service.

VII. NEW SERVICES AND TARIFFS

17 **Q. PLEASE IDENTIFY THE NEW NATURAL GAS SERVICES AND**
18 **TARIFF OFFERINGS THAT THE COMPANY IS PROPOSING IN**
19 **THESE PROCEEDINGS.**

20 **A.** Through these proceedings, Duke Energy Ohio is proposing several new
21 programs to provide better service to current and future customers. As I
22 mentioned previously, the Company is proposing a new service line replacement

1 program that is intended to improve upon the safety and reliability of the natural
2 gas distribution system. Duke Energy Ohio witness Hebbeler details this program.
3 Additionally, as described the Duke Energy Ohio witness Julia S. Janson, the
4 Company is proposing to encourage business development through economic
5 development incentives. And, as I discuss below in greater detail, Duke Energy
6 Ohio is also proposing a new rider to encourage the development of natural gas
7 vehicles (NGV) and NGV fueling stations, as well as a program to encourage the
8 development of customer-owned natural gas co-generation. Finally, Duke Energy
9 Ohio is proposing a facility relocation – mass transportation rider.

A. NATURAL GAS VEHICLES

10 **Q. PLEASE DESCRIBE THE COMPANY'S NGV PROPOSAL.**

11 A. Duke Energy Ohio is proposing to implement a new NGV service, Rider NGV, to
12 encourage the development of natural gas as a fuel alternative. The rider proposed
13 in these proceedings sets forth the terms and conditions under which the Company
14 will provide service to customers who are looking to invest in an NGV and/or
15 NGV fueling stations. Rider NGV covers two basic types of services. The first
16 type of service is what I refer to as the “direct to consumer” natural gas service for
17 a private, customer-owned, fueling station. The private fueling station is one that
18 is owned by the customer, located in the customer’s primary residence or place of
19 business, and is for the customer’s sole use. The natural gas for this station is not
20 for resale. In this situation, the Company will provide natural gas delivery service
21 and, if the customer chooses, the commodity service under the standard rates and
22 tariffs for which the customer is eligible. For example, in accordance with the

1 terms and conditions of proposed Rider NGV, a residential customer will be
2 provided service under the rates, terms, and conditions of the Company's
3 Residential Service rate. Similarly, a non-residential customer will be provided
4 service under the terms and conditions of the applicable General Service rate.

5 The second type of NGV service is designed to accommodate a
6 commercial fueling station. A commercial natural gas fueling station provides
7 fuel for the general public and is owned and operated by a company in the
8 business of fueling NGVs for profit. Under this type of service, the Company will
9 provide natural gas delivery service only under its Rate FT-L (firm transportation
10 service – large). The Company will not provide the commodity of natural gas
11 because, under the Company's terms of service, its natural gas is not for resale.
12 The commercial fueling station will have to enter into a pooling arrangement
13 comparable to other customers under Rate FTL.

14 Duke Energy Ohio witness Janson explains how the proposed Rider NGV
15 complements Governor Kasich's energy policy, as reflected in Sub. S.B. 315.

16 **Q. ARE THERE ANY SPECIAL TERMS AND CONDITIONS FOR**
17 **CUSTOMERS TAKING SERVICE UNDER RIDER NGV?**

18 A. Yes. Regardless of the type of service (*i.e.*, customer-owned or commercial), if
19 the Company's current natural gas delivery facilities need to be rearranged,
20 expanded, relocated, or modified in any way to accommodate such a station, the
21 customer will be responsible for all applicable costs. Second, a registration
22 process for NGV service will be necessary. This is because of the manner in
23 which the Company operates its natural gas system, using pipeline-quality gas and

1 propane air injections to balance the system during certain conditions and times of
2 the year. The Company recognizes that some types of NGV fueling systems and
3 vehicles may not operate properly when the quality of gas changes through the
4 injection of propane. In recognition of this potential operational issue, Duke
5 Energy Ohio recommends that customers who are installing this type of fueling
6 equipment should also install air quality devices that will alert them when propane
7 is in the system. As another precautionary measure, the Company plans to
8 establish a notification procedure to advise NGV customers when the Company is
9 injecting propane into the system so that customers can, in turn, take those
10 precautions they may deem necessary. As a result, the Company is requiring any
11 customer installing an NGV fueling system to register for the notification service.

12 **Q. ARE THERE ANY ADDITIONAL CHARGES FOR THIS NGV SERVICE?**

13 A. Other than what I previously mentioned with respect to facility expansion and
14 relocation, there are no additional charges contemplated at this time. Rather, Duke
15 Energy Ohio is currently proposing to charge customers for natural gas delivery
16 and, where applicable, the commodity service under the applicable standard tariff
17 rates. However, if the development of NGV service expands significantly in the
18 future, the Company may need to implement additional processes to enable the
19 continuation of this service. Duke Energy Ohio will address this need, if it
20 materializes, in an appropriate future proceeding.

B. CO-FIRED GENERATION

1 **Q. PLEASE DESCRIBE THE COMPANY'S PROPOSAL TO ENCOURAGE**
2 **NATURAL GAS-FIRED GENERATION.**

3 A. In order to encourage the use of natural gas for electric generation, Duke Energy
4 Ohio is proposing the Gas Generation Interruptible Transportation (GGIT) rate to
5 replace its existing Rate SSIT (Spark Spread Interruptible Transportation Rider).
6 Unlike Rate SSIT, which was designed to approximate Rate IT (Interruptible
7 Transportation rider) in the long run, this rate is designed to result in, on average,
8 a 10 percent discount from Rate IT, in order to facilitate the development of
9 natural gas-fired generation on the Duke Energy Ohio gas delivery system. The
10 rate charged under Rate GGIT will be the amount delineated in Rate IT for the
11 first 100,000 Mcf per month and includes pricing adjustments at specific
12 volumetric thresholds that are designed to encourage the development of natural
13 gas-fired generation.

14 Rider GGIT is intended to provide for interruptible local delivery service
15 for natural gas to be used in any commercial, gas-fired electric generators,
16 including, but not limited to, customer-owned co-generation.

17 **Q. YOU MENTIONED THE COMPANY'S RATE SSIT. WOULD YOU**
18 **PLEASE EXPLAIN THE HISTORY AND INTENT OF RATE SSIT?**

19 A. In the late 1990's, electric prices became extremely volatile. At times, those
20 prices reached peaks of \$2,000 per MWh and, at other times, they plummeted to
21 less than \$20 per MWh. Rate SSIT was developed to address the fuel
22 cost/electricity pricing timing issue that operators of gas-fired electric generating

1 facilities were experiencing. The rate was designed so that there would be a
2 discount from Rate IT during times when electric prices were reasonable or low,
3 as compared to natural gas prices. During periods of extremely high electric
4 prices, Rate SSIT rate would result in a premium over Rate IT. Consequently, the
5 operator of the electric generating facilities would pay less for fuel when market
6 prices of electricity were low, in exchange for paying a premium when market
7 prices for electricity were high.

8 Historic spark spread rates from the summers of 1997 through 2000 were
9 originally used to design the rate such that the Company would be made whole in
10 relation to its Rate IT. Over this four-year period, the revenue that the Company
11 would have received from the Rate SSIT customer would be approximately the
12 same as the revenue that the Company would have received had the customer
13 taken service under Rate IT. Therefore, SSIT was not designed to provide a
14 discount over the long term but, rather, to help the operators of gas-fired electric
15 generating equipment to match revenue with expenses while allowing the
16 Company to recover its costs to provide service. Despite its existence for more
17 than a decade, no customer has ever taken service under Rate SSIT. As a result,
18 this rate has remained dormant, has not been updated since its inception, and is no
19 longer valid as designed with respect to either the original intent of the rate's
20 design or its pricing algorithm. The electric pricing point used in the original
21 Rate SSIT (Into Cinergy) is no longer published by *Megawatt Daily*, because it
22 does not exist. Moreover, the electricity market has changed drastically since the
23 late 1990s. If a customer were to be served on Rate SSIT as written, and assuming

1 a substitute index for Into Cinergy, Rate SSIT would no longer approximate Rate
2 IT over time and any customer served under Rate SSIT would not be paying its
3 fair share of costs.

4 **Q. THE COMPANY HAS REQUESTED THAT THE COMMISSION**
5 **SUSPEND RATE SSIT, IN CASE NO. 12-0331-GA-ATA. WHY IS THE**
6 **COMPANY SIMPLY NOT PROPOSING TO AMEND RATE SSIT?**

7 A. Due to changes in both the electricity and natural gas markets, prices are much
8 lower and more stable than they were in the late 1990s. During the summers of
9 2008 through 2011, electric prices have rarely been over \$100 per MWh, with the
10 peak at \$122 per MWh. Although recent electric prices have spiked over \$400
11 per MWh due to the extremely hot temperatures through most of the country,
12 prices are still much lower than the \$2,000 peaks reached when SSIT was first
13 developed. To redesign the algorithm, electric prices from the "AEP-Dayton Hub"
14 could be used as the closest point to the discontinued "Into Cinergy" point.
15 However, using the same method originally used to design Rate SSIT and data
16 from the summers of 2008 through 2011 results in a formula that would provide a
17 very small discount relative to Rate IT during normal circumstances, with a
18 potential for a steep premium if electric prices were ever to spike to dramatically
19 higher levels. This is a direct result of the lower volatility in the electricity
20 market. With no interest shown in Rate SSIT since its inception, and the fact
21 that an amended Rate SSIT would be even less appealing, suspending the rate is
22 clearly the best option.

C. FACILITY RELOCATION – MASS TRANSPORTATION

1 **Q. WHAT IS THE COMPANY’S POLICY WITH RESPECT TO FACILITY**
2 **RELOCATION?**

3 **A.** As a general proposition, Duke Energy Ohio approaches any natural gas facility
4 relocation from the view of a prudent operator. Indeed, federal regulations
5 mandate that Company prudently conduct its natural gas operations. Toward that
6 end, Duke Energy Ohio thoroughly evaluates the location – and relocation – of all
7 of its natural gas facilities.

8 Facility relocation, and the associated costs, are factually driven and there
9 is thus no one result that can be uniformly applied to every circumstance. For
10 example, the manner in which the Company came to occupy the property on or
11 under which natural gas facilities are installed, the availability of funding, the type
12 of project at issue, and the genesis for the need to relocate facilities will influence
13 the outcome. Notwithstanding these nuances, Duke Energy Ohio has consistently
14 incorporated safety and reliability considerations into any relocation project. The
15 placement of the Company’s natural gas facilities – whether above or below
16 ground – must enable safe and immediate access. Barriers to natural gas facilities
17 needlessly expose the public and Duke Energy Ohio’s customers and employees
18 to potentially dangerous conditions. Consequently, Duke Energy Ohio endeavors
19 to locate its natural gas facilities in locations such that access to such facilities is
20 not impeded, whether by natural or artificial barriers, and that allow Company
21 employees to work safely in maintaining and operating the system.

1 Duke Energy Ohio also consistently approaches any natural gas facility
2 relocation with consideration of associated costs. In that respect and for purposes
3 of illustration only, the Company operates pursuant to a Commission-approved
4 service regulation that allows for financial contributions by a governmental entity
5 that requires non-traditional facility installation or relocation. Such an
6 arrangement ensures that customers – including those located outside of the
7 jurisdiction at issue – do not pay for the non-traditional placement of facilities.

8 **Q. HOW DOES THE CITY OF CINCINNATI'S PROPOSAL TO**
9 **CONSTRUCT A STREETCAR IMPACT DUKE ENERGY OHIO'S**
10 **NATURAL GAS DELIVERY SYSTEM?**

11 A. Duke Energy Ohio and its predecessors have been providing natural gas service in
12 the city of Cincinnati (City) for 175 years and there are miles of natural gas
13 infrastructure in the downtown area associated with this service. Duke Energy
14 Ohio must be able to timely and, more importantly, safely access this
15 infrastructure, as necessary, for purposes of inspection and maintenance or in
16 response to incidents.

17 Phase 1 of the City's mass transportation project – the streetcar – will
18 force the relocation of approximately 17,000 feet of natural gas pipelines and
19 associated equipment. This relocation is necessary so as to ensure that Duke
20 Energy Ohio can continue to function as a prudent operator, consistent with
21 applicable regulations, and that a safe distance is maintained between the
22 Company's active natural gas delivery system and the streetcar. Further, such
23 relocation is necessary to provide Company employees with safe working

1 conditions and to protect the welfare of future streetcar passengers and the City's
2 occupants.

3 **Q. WHAT IS THE COST ESTIMATE FOR NATURAL GAS FACILITY**
4 **RELOCATION ASSOCIATED WITH PHASE 1 OF THE STREETCAR**
5 **PROJECT?**

6 A. Based upon the current route of the streetcar, as determined by the City, the
7 relocation costs for Phase 1 of the project approximate \$6.65 million, excluding
8 contingencies. A reasonable estimate for such contingencies, which would result
9 in additional costs, is 30 percent for an approximate total project estimate of
10 \$8.645 million.

11 **Q. DOES DUKE ENERGY OHIO ANTICIPATE ADDITIONAL COSTS**
12 **ASSOCIATED WITH THE STREETCAR PROJECT?**

13 A. As I mentioned above, the current estimates for facility relocation concern only
14 Phase 1 of the streetcar project and, more specifically, the route between Henry
15 and Third Streets in downtown Cincinnati. Should additional routes be
16 constructed, more facilities would need to be relocated. The costs associated with
17 such additional relocations are currently unknown.

18 **Q. WHAT IS THE COMPANY PROPOSING IN THIS PROCEEDING TO**
19 **ADDRESS THE ISSUE OF RELOCATIONS RESULTING FROM**
20 **MUNICIPALITY-INITIATED PROJECTS?**

21 A. Duke Energy Ohio is proposing a facility relocation – mass transportation rider
22 (Rider FRT) that will narrow the scope of entities or customers financially
23 responsible for facility relocation costs that are required for the purpose of

1 accommodating mass transportation systems within the geographical territory of
2 one or adjoining governmental entities. Although Duke Energy Ohio witness
3 William Don Wathen Jr. discusses the mechanics of the rider in greater detail, I
4 provide a brief summary here.

5 Under Rider FRT, where Duke Energy Ohio is required to relocate its
6 natural gas facilities to accommodate mass transportation and Duke Energy Ohio
7 had no corresponding intention of relocating said facilities, the costs of such
8 relocation will either be borne by the governmental entity implementing the mass
9 transportation project or, at that governmental entity's election, the customers
10 within its geographical boundaries. Rider FRT thus removes any delays in a mass
11 transportation project that could result from protracted discussion of responsibility
12 for facility relocation and establishes an objective mechanism for recovery via the
13 requesting entity or a surcharge on customers' utility bills. Furthermore, Rider
14 FRT is consistent with existing, Commission-approved service regulations. As I
15 mentioned previously, where a customer is seeking changes to the system that are
16 not usual or customary, Duke Energy Ohio recovers the incremental costs for
17 such work from that customer.

18 **Q. IN YOUR OPINION, IS THIS PROPOSAL REASONABLE AND IN**
19 **CUSTOMERS' BEST INTEREST?**

20 A. Yes. Mass transportation projects within the geographical boundaries of a
21 governmental entity are unlike those relocation projects for which Duke Energy
22 Ohio has not sought recovery via a discreet rider. Further, as I have been informed
23 by counsel, the Cincinnati streetcar will function as a public utility and it is

1 customary for a public utility to reimburse another public utility where the former
2 displaces the latter. Finally, these projects, once operational, will most directly
3 benefit those individuals residing within the jurisdictional limits of the
4 governmental entity implementing the project and it is thus fair and reasonable to
5 establish a mechanism whereby these individuals contribute to the costs of the
6 project, provided the governmental entity has elected not to fully assume the
7 costs.

VIII. CONCLUSION

8 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

9 **A. Yes.**