BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke	
Energy Ohio, Inc., for Approval of an	
Alternative Rate Plan Pursuant to Section) Case No. 14-1622-GA-ALT
4929.05, Revised Code, for an	
Accelerated Service Line Replacement	
Program.	

DIRECT TESTIMONY OF CHARLES R. WHITLOCK ON BEHALF OF

DUKE ENERGY OHIO, INC.

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INTRODUCTION AND PURPOSE I.

1	Q.	PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
2	A.	My name is Charles R. Whitlock, and my business address is 139 East Fourth
3		Street, Cincinnati, Ohio 45202.
4	Q.	BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?
5	A.	I am employed by Duke Energy Business Services LLC (DEBS) as Senior Vice
6		President Midwest Delivery and Gas Operations. DEBS is a service company
7		that provides various administrative and other services to Duke Energy Ohio, Inc.,
8		(Duke Energy Ohio or the Company) and other affiliated companies of Duke
9		Energy Corporation (Duke Energy).
10	Q.	PLEASE BRIEFLY SUMMARIZE YOUR EDUCATIONAL
11		BACKGROUND AND PROFESSIONAL EXPERIENCE.
12	A.	I am a graduate of the University of Alaska at Anchorage with a Bachelor of
13		Business Studies Degree in Accounting. I am also a graduate of the Mahler
14		School Advanced Management Skills Program and the Center for Creative
15		Leadership Developing Strategic Leadership Program. I have also taken
16		advanced course work in business management at Harvard University.
17		Prior to joining Cinergy Corp. (Cinergy), I was a Senior Power Trader for
18		Statoil Energy. I also held various positions with Vitol Gas and Electric, which
19		included responsibilities for energy trading, marketing, and risk management. I
20		joined Cinergy in May 2000 as a power trader for Cinergy Services, Inc. I held
21		positions of increasing responsibility within the trading organization, culminating
22		in the position of Vice President, Power Trading. In 2004, I became Vice

1	President, Portfolio Optimization. In this role, I managed the commodity
2	exposure related to the generation assets. I remained in this position through the
3	merger with Duke Energy. I was named President of MCG in October 2009. In
4	March of 2014, I assumed the role of Vice President of Gas Operations. In June
5	of 2015, I assumed my current position, becoming Senior Vice President Midwest
6	Delivery and Gas Operations and added the responsibility for the electric
7	distribution business in Ohio, Kentucky, and Indiana.

8 Q. PLEASE SUMMARIZE YOUR RESPONSIBILITIES AS SENIOR VICE

9 PRESIDENT, MIDWEST DELIVERY AND GAS OPERATIONS.

- 10 One of my main responsibilities, and the reason I am providing this testimony, is A. 11 my leadership role in Gas Operations, where I provide strategic direction and lead 12 a team that performs the day-to-day natural gas operations of Duke Energy Ohio 13 and Duke Energy Kentucky, Inc. (Duke Energy Kentucky). In this role, I am responsible for organizations that deliver the safe, reliable, and economic supply 14 15 of natural gas throughout the Company's distribution and transmission operations. This includes construction and maintenance, gas engineering, gas supply, integrity 16 17 management, and performance and compliance management.
- 18 Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC
 19 UTILITIES COMMISSION OF OHIO?
- A. Yes. I have testified before the Public Utilities Commission of Ohio
 (Commission) on several occasions.
- Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. My testimony provides an overview of Duke Energy Ohio and our natural gas operations. I provide a high-level summary of the Company's request in this proceeding, discuss the need for and reasonableness of our proposal to implement an Accelerated Service Line Replacement Program (ASRP), and outline the program's benefits to our customers and employees. Finally, I introduce the other witnesses supporting the Company's application.

II. OVERVIEW OF DUKE ENERGY OHIO'S GAS OPERATIONS BUSINESS

- 7 Q. PLEASE GENERALLY DESCRIBE DUKE ENERGY OHIO'S GAS
 8 OPERATIONS.
- 9 A. Duke Energy Ohio's Gas Operations Department is organized into the following 10 functional groups: construction and maintenance, gas engineering, gas supply, 11 integrity management, and performance and compliance management.

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These functional groups enable the excellent natural gas services that Duke Energy Ohio has provided to our customers over the past 175 years. Currently, there are approximately 410 employees supporting Duke Energy's Gas Operations. Duke Energy Ohio serves a relatively densely populated territory that, although not heavily industrialized, includes a fairly diverse mix of industrial customers. The Company currently provides natural gas distribution service to approximately 420,000 meters, and the customers behind those meters, in Hamilton, Butler, Clermont, Warren, Brown, Adams, Clinton, Montgomery, and Highland counties in southwestern Ohio. Duke Energy Ohio has approximately 5,748 miles of gas mains on our natural gas distribution and transmission system.

1		The capital expenditures for Duke Energy Ohio's Gas Operations in 2014 were
2		approximately \$98 million.
3	Q.	WHEN WAS DUKE ENERGY OHIO'S LAST NATURAL GAS BASE
4		RATE CASE?
5	A.	Duke Energy Ohio's last natural gas base rate case commenced in 2012. The
6		Company agreed to receive no increase in base rates in that proceeding.
7	Q.	PLEASE DESCRIBE GAS OPERATIONS' MAJOR SAFETY AND
8		RELIABILITY INITIATIVES.
9	A.	All of the activities within Gas Operations impact and incorporate safety and
10		reliability considerations. For example, Gas Resources purchases gas that meets
11		current pipeline quality standards. Gas Engineering designs and installs the Duke
12		Energy Ohio natural gas system in accordance with applicable safety codes
13		promulgated in Title 49 of the Code of Federal Regulations and by the American
14		Society of Testing Materials. Gas Field and System Operations follows safety
15		regulations of the Commission and of the United States Department of
16		Transportation Pipeline and Hazardous Materials Safety Administration
17		(PHMSA) when installing, operating, and maintaining transmission and
18		distribution facilities. This deliberate focus on safety and reliability is also
19		demonstrated by Gas Operations' other functional groups.
20		In addition to these daily safety measures, Gas Operations has ongoing
21		and completed major programs that focus on safety and reliability, all of which
22		are relevant to this proceeding. The first program is Duke Energy Ohio's ongoing

and very successful Accelerated Main Replacement Program (AMRP), which is

1		designed to replace the Company's aged cast iron and bare steel mains and
2		associated services on an accelerated basis. As Duke Energy Ohio witness Gary
3		Hebbeler explains, the AMRP has significantly reduced leak repairs on Duke
4		Energy Ohio's gas distribution system and the costs associated with such repairs.
5		Mr. Hebbeler further details the Company's continued, effective management of
6		the AMRP.
7		Another ongoing program is the Integrity Management Program, which is
8		a comprehensive set of rules that includes both the transmission and distribution
9		systems. The purpose of these rules is to ensure that the transmission and
10		distribution pipelines remain structurally sound and in compliance with federal
11		law and regulations. Duke Energy Ohio witness John Hill describes these
12		programs in detail in his direct testimony.
13		A recently completed major program is the Accelerated Riser
14		Replacement Program (RRP), which was designed to replace certain types of
15		service head adapter-style risers that have been associated with riser leaks. This
16		program was completed on time and under budget.
17		These programs highlight the importance of safety and reliability, as well
18		as our ability to execute large and multi-faceted initiatives.
19	Q.	HOW HAS GAS OPERATIONS PERFORMED ON ITS MAJOR SAFETY
20		AND RELIABILITY MEASURES?
21	A.	Duke Energy Ohio has consistently performed in the top quartile, according to

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American Gas Association (AGA) reporting criteria for Number of Outages

Affecting Multiple Customers per 1,000 customers in 2007, 2008, 2009, and

- 2010. Duke Energy Ohio was honored as an industry leader in employee safety through our being awarded the 2011 AGA Safety Achievement Award for achieving the lowest DART (Days Away, Restricted, or Transferred) incident rate among medium- to large-sized local distribution companies.
- 5 Q. PLEASE DISCUSS THE COMPANY'S EFFICIENT MANAGEMENT OF 6 ITS GAS OPERATIONS BUSINESS.

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Duke Energy Ohio has aggressively investigated and, where justified, implemented new products, technologies, and work methods to increase our productivity. Duke Energy Ohio also participates in the AGA's Best Practices Benchmarking Program. In this program, approximately 60-80 gas distribution companies in the United States and Canada routinely benchmark three to five distribution operations topics each year. Duke Energy Ohio has implemented process improvements and utilized new technology, materials, and equipment as a result of what it has learned through participating in this program. Similarly, Duke Energy Ohio shares our practices with the other participating AGA members. As a result of this information exchange, Duke Energy Ohio was recognized as a unique performer due to the AMRP and was selected to present at the AGA's Distribution Best Practices Roundtable for Main and Service Replacements in both 2007 and 2010. In addition, Duke Energy Ohio was selected to present at the AGA's Best Practices Roundtable for Leak Management in 2011, based on Duke Energy Ohio's top quartile performance in the following areas: (1) jurisdictional leaks found by leak survey per total jurisdictional leaks reported, (2) total leak survey cost per mile of mains and services surveyed, (3)

1		service repair labor hours per service leak repaired, and (4) leak repair total cost
2		per leak repaired.
3	Q.	IF DUKE ENERGY OHIO'S OPERATIONS AND MANAGEMENT OF
4		ITS NATURAL GAS DELIVERY SYSTEM HAVE BEEN RECOGNIZED
5		FOR ITS HIGH PERFORMANCE, WHY DOES IT NEED TO
6		IMPLEMENT ANY NEW INITIATIVES?
7	A.	Duke Energy Ohio's customers expect, and Duke Energy Ohio strives to deliver,
8		safe, reliable, and reasonably priced natural gas service each and every day. In
9		addition to federal and state regulations and the associated integrity management
10		obligations that require the Company to be vigilant in the management of our
11		natural gas delivery system, Duke Energy Ohio believes that the safety of the
12		system is of the utmost importance. In order to maintain our historic high level of
13		performance, Duke Energy Ohio must continually evaluate threats to our
14		pipelines and proactively implement strategies to improve performance.
15		Maintaining current measures and strategies is not enough. That is why Duke
16		Energy Ohio is pursuing the ASRP initiative.
17	Q.	DO YOU BELIEVE THAT PROACTIVE STRATEGIES ARE
18		IMPORTANT?
19	A.	Yes. The Company believes that proactive approaches result in increased
20		reliability and cost savings for customers. Furthermore, the Company has
21		recognized the Commission's approval of such approaches, as it explained in its
22		recent approval of the continuation of a pipeline replacement program by Vectren

Energy Delivery of Ohio, Inc., where the Commission found "that minimization

of unnecessary risk by systematically replacing a known safety threat is preferred to waiting for an imminent safety threat."

III. <u>DUKE ENERGY OHIO'S APPLICATION TO</u> <u>IMPLEMENT THE ASRP</u>

3 Q. WHAT IS THE ASRP?

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- The ASRP is an important part to continue the Company's mission to provide safe, reliable, and reasonably priced natural gas service to Ohio customers. The ASRP, like its predecessor AMRP, is intended to replace out-of-date and aging natural gas delivery infrastructure that has a high likelihood of developing leaks or failing. It also allows for progress that the Company made in replacing service lines under the AMRP to continue at roughly the same rate. Under the proposed program, the Company would replace aged steel and other unprotected metallic service lines, which are prone to leaks. The program will also include reconnaissance on services for which the Company has inadequate information and relocation of certain meters that are currently located inside customers' premises. The ASRP will improve the safety and reliability of the gas delivery system and, by relocating the affected meters, will also improve safety and convenience for customers.
- 17 Q. PLEASE BRIEFLY **SUMMARIZE** DUKE **ENERGY** OHIO'S 18 APPLICATION AND THE RELIEF REQUESTED IN THIS 19 PROCEEDING.
- 20 A. Duke Energy Ohio's application in this proceeding includes five requests. First, 21 the Company is requesting approval of the ASRP, which, as outlined in the 22 application filed in this proceeding, would identify, address, and accelerate the

replacement of pre-1971, steel and other unprotected metallic service lines. In addition, the ASRP would allow the Company to perform records reconnaissance on certain services and to relocate certain interior meters to an exterior location on the customer premises. Fourth, Duke Energy Ohio is seeking to continue the existing authority to take over ownership of customer-owned service lines once the Company replaces those services. Finally, the Company is requesting approval of a rider, Rider ASRP, initially set at zero, which will allow the Company to track and recover the costs of these programs.

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9 Q. PLEASE DESCRIBE THE COMPANY'S REQUEST FOR APPROVAL OF 10 SERVICE LINE REPLACEMENTS UNDER THE ASRP.

Duke Energy Ohio is requesting that the Commission authorize the Company to begin the ASRP initiative during 2016. The ASRP is a key component of the Company's reliability, integrity management, and safety initiatives for natural gas delivery operations. This program is driven by federal pipeline standards, including those of the United States Department of Transportation's Office of Pipeline Safety and PHMSA. As part of the Company's integrity management program, the service lines that are targeted for replacement under the ASRP have been identified as a safety risk due to their age, material, and corresponding high likelihood for leakage and breakage. Currently, outside of services replaced as part of the AMRP, the Company proactively replaces approximately 200 service lines a year and also, in a reactive fashion, those service lines in which leaks have actually been discovered. At the end of the AMRP, assuming 200 service lines per year, it would take more than 200 years to replace all of the services that have

1		been identified for accelerated replacement as part of the ASRP. The ASRP wil
2		allow the Company to replace these older services, on an accelerated basis, using
3		current industry standard materials, at a lower cost for our customers and before a
4		failure occurs or an emergency situation arises.
5	Q.	PLEASE BRIEFLY EXPLAIN THE COMPANY'S REQUEST FOR
6		AUTHORITY TO RELOCATE INTERIOR METERS ON CUSTOMERS
7		PREMISES, UNDER THE ASRP.
8	A.	As I previously explained, because some of the services that are impacted by the
9		service line replacement may also happen to have interior meters, the Company is
10		proposing to relocate those interior meters, where applicable and permissible, to
11		suitable locations outside the customers' premises. By relocating these interior
12		meters to exterior locations on the premises, the Company will be able to reduce
13		the costs associated with maintaining these meters and minimize the
14		inconvenience and impact to customers from the Company having to gain interior
15		access for periodic mandatory inspections.
16	Q.	PLEASE EXPLAIN HOW RELOCATING CERTAIN METERS WILL
17		IMPROVE SATISFACTION AND CONVENIENCE AND WILL REDUCE
18		COSTS TO CUSTOMERS.
19	A.	As explained by Company witness Hebbeler, Duke Energy Ohio is required to
20		conduct periodic atmospheric corrosion inspections and leak surveys. For those
21		customers with gas meters located inside their premises, we cannot complete there
22		required inspections without their cooperation. But scheduling these

appointments at mutually convenient times necessarily causes an inconvenience

to our customers and creates inefficiencies for the Company. And there are
circumstances where Duke Energy Ohio cannot gain access to its interior meters,
further compounding the inefficiencies and frustration. The Company is thus
proposing, as part of this proceeding, to relocate certain interior meters to an
exterior location. This relocation will allow Duke Energy Ohio the requisite
access it needs to its facilities, without imposing upon customers to grant access
into their homes. Additionally, if the proposal is accepted, an individual customer
seeking to have an interior meter relocated will no longer have to bear that
relocation expense. Importantly, all customers will benefit as a result of the
reduction in ongoing expenses associated with functions such as mandatory
inspections.

- 12 Q. PLEASE BRIEFLY EXPLAIN THE COMPANY'S REQUEST TO
 13 PERFORM RECORDS RECONNAISSANCE ON CERTAIN SERVICES.
- 14 A. Until recently, customers in Ohio owned the portion of the service line between
 15 the curb and the meter. With Commission authorization, as I will discuss below,
 16 the Company has been taking over ownership, once customer-owned service lines
 17 are replaced. However, prior to replacing a given line, the Company's knowledge
 18 of the age or material of the line may be based on incomplete or unreliable data.
 19 The Company is therefore proposing to perform certain reconnaissance efforts on
 20 approximately 28,000 curb-to-meter service lines.
- Q. PLEASE BRIEFLY EXPLAIN THE COMPANY'S REQUEST TO

 CONTINUE ITS EXISTING AUTHORITY TO TAKE OVER

- 1 OWNERSHIP OF CUSTOMER-OWNED SERVICE LINES ONCE THE 2 COMPANY REPLACES THOSE SERVICES. 3 A. As part of the Company's 2007 natural gas base rate case, Case No. 07-589-GA-AIR, et al., Duke Energy Ohio received Commission authorization to take over 5 ownership of customer-owned (curb-to-meter) service lines once the services are 6 placed by the Company. Duke Energy Ohio's request in this regard is simply 7 informing the Commission and our customers of the Company's intent and desire 8 to continue such practice. 9 O. PLEASE BRIEFLY EXPLAIN THE COMPANY'S RIDER ASRP. 10 A. Rider ASRP is the mechanism by which the Company is proposing to track and 11 recover the costs of implementing the programs proposed in the application. This 12 rider will allow the Company to timely recover and the Commission to review. the service-line replacement and meter-moving costs, as well as the Company's 13 14 progress on an annual basis. Rider ASRP also allows the Company and the 15 Commission to avoid the expense and time associated with a full base rate 16 proceeding or multiple consecutive proceedings over the course of the ASRP 17 initiative. Q. PLEASE DESCRIBE THE BENEFITS OF THE COMPANY'S ASRP
- 18 19 INITIATIVE.
- 20 The ASRP is just one of the Company's strategies for addressing the top integrity A. risks identified as part of the Company's overall distribution integrity 21 22 management plan. Duke Energy Ohio witness Hill discusses these initiatives in 23 his direct testimony. The ASRP improves pipeline safety by eliminating the

identified threat of outdated material that has been demonstrated to be prone to corrosion, leakage, and breakage. The ASRP is cost-effective because it allows for efficient and programmatic utilization of labor. The ASRP improves customer satisfaction by transferring meters outside of homes and transferring ownership of curb-to-meter lines to Duke Energy Ohio. Increasing the safety and integrity of the natural gas delivery system benefits all customers. Fewer leaks mean fewer instances of outages. The Company's proposal to implement a tracking mechanism for the recovery of costs to implement this program is consistent with the rate design principle of gradualism and will allow the Company to mitigate any potential for rate shock that customers might experience with a natural gas base rate case, or multiple consecutive rate cases, where all utility costs are adjusted at once. The discrete surcharge mechanism will allow the Company to recover costs in a way that essentially phases in the rate impact of the program over the five-year term of the program, rather than all at once through a single or multiple consecutive and expensive base rate proceedings.

Q. WHY IS THE COMPANY PROPOSING THIS ASRP?

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As Mr. Hill explains, the risk posed by the services targeted for replacement under the ASRP was identified in accordance with federal regulations and guidance. Under those regulations, once a system risk is identified, a prudent operator must take action to address and reduce or eliminate that risk. As I previously mentioned, and as discussed by other Company witnesses, the ASRP is thus designed to address one of the most significant integrity risks to the Company's natural gas delivery system, and one which the Company can control

through a systematic and targeted replacement strategy. The failure rate of
services due to material and corrosion is a major cause of hazardous leaks on the
Company's system, second only to leaks caused by third-party excavations.
Although the Company has also implemented a strategy to address the risk of
excavations through public education and outreach, despite the Company's best
efforts, third-party excavation risk is not one that the Company can wholly
control. On the other hand, the risk posed by these steel and other unprotected
metallic service lines are controllable, and the sooner the Company takes action,
the safer the delivery system will remain.

10 Q. IN ADDITION TO YOUR TESTIMONY, PLEASE IDENTIFY THE 11 OTHER WITNESSES SUPPORTING THE COMPANY'S APPLICATION.

12 A. The Company's application is supported by the following witnesses:

- John A. Hill, Jr., Director, Gas Engineering, Gas Operations, supports the need for the ASRP initiative from a safety, reliability, and compliance standpoint. Mr. Hill describes the federal pipeline safety regulations that are driving the Company's decision to pursue the ASRP initiative, how the ASRP complies with those regulations, the program budgets and costs, and the benefits that will be achieved from an overall system integrity and customer safety standpoint.
- Gary J. Hebbeler, General Manager, Gas Field and System Operations, describes how the Company will identify and replace the services impacted by the ASRP initiative. Mr. Hebbeler describes the location of the service lines to be replaced under the program and supports the work

1	plan and construction specifications for the initiative, as well as the five-
2	year construction schedule. He also describes the Company's proposal to
3	relocate interior natural gas meters to an exterior location at the
4	customers' premises. Mr. Hebbeler also describes how the Company will
5	manage costs under the ASRP.
6	 Peggy A. Laub, Director, Rates and Regulatory Planning, describes and
7	supports the revenue requirement for the Company's Rider ASRP, the
8	Rider ASRP tariff, the calculation of Rider ASRP rates, and the customer
9	rate impact. Ms. Laub also explains the Company's proposal to establish
10	the initial Rider ASRP charges and how the rider will be trued-up and
11	adjusted on an annual basis while it is in effect.
12	• Edward A. McGee, Principal Consultant of McGee Consulting, LLC,
13	working as a Gas Utility Consultant with Lummus Consultants
14	International, Inc., supports the analysis of the Company's natural gas
15	delivery system and the need for the ASRP initiative to replace the
16	services identified as presenting a system integrity risk in a rapid fashion.
17	• Roger A. Morin Ph.D., a principal in Utility Research International,
	사람이 아이는 아이트 가장 및 맛을 잃었다고 있다면 맛이 되었다. 그런 그런 얼마나 있다는 것이 아이들을 걸었다. 그
18	presents and supports an independent appraisal of the fair and reasonable
18 19	presents and supports an independent appraisal of the fair and reasonable rate of return on equity (ROE) with regard to Duke Energy Ohio's natural

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Company's current allowed ROE of 9.84%, as was determined in the

Company's last gas distribution rate case, continues to be reasonable.

IV. <u>CONCLUSION</u>

- 1 Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?
- 2 A. Yes.

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in

Case No(s). 14-1622-GA-ALT

Summary: Testimony PUCO Case No. 14-1622-GA-ALT In the Matter of the Application of Duke Energy Ohio, Inc., for Approval of an Alternative Rate Plan Pursuant to Section 4929.05. Revised Code, for an Accelerated Service Line Replacement Program Direct Testimony of Charles R. Whitlock on Behalf of Duke Energy Ohio, Inc. electronically filed by Mrs. Debbie L Gates on behalf of Duke Energy Ohio Inc. and Spiller, Amy B and Kingery, Jeanne W