

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke)
Energy Ohio, Inc., for a Certificate of)
Environmental Compatibility and Public) Case No. 16-253-GA-BTX
Need for the C314V Central Corridor)
Pipeline Extension Project.)

DIRECT TESTIMONY OF

GARY J. HEBBELER

ON BEHALF OF

DUKE ENERGY OHIO, INC.

March 26, 2019

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ATTACHMENTS:

GJH-1: Officials Contacted by Duke Energy Ohio

GJH-2: Officials Served on March 23, 1017

I. INTRODUCTION AND PURPOSE

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

2 A. My name is Gary J. Hebbeler 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 LLC (DEBS) as Vice
6 President, Gas Operations, for Duke Energy Ohio, Inc., (Duke Energy Ohio or the
7 Company) and affiliated natural gas utilities. DEBS provides various
8 administrative and other services to Duke Energy Ohio and other affiliated
9 companies of Duke 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 Kentucky, where I obtained my Bachelor of
13 Science Degree in Civil Engineering. In 1994, I obtained my license as a
14 Professional Engineer in the Commonwealth of Kentucky and, by reciprocity,
15 later in the State of Ohio.

16 In 1987, I began working for The Cincinnati Gas & Electric Company
17 (CG&E), and Union Light Heat and Power Company (ULH&P), predecessors to
18 the Company and Duke Energy Kentucky, respectively, as an engineer in the Gas
19 Engineering Department. I initially worked as a project engineer and was
20 responsible for designing gas mains and water lines, coordinating projects with
21 governmental agencies and consulting firms, calculating pipe capacity and stress,
22 and evaluating company paving standards and designs. Until 1998, I worked for

1 CG&E/ULH&P, and later for Cinergy Services, Inc., all of which were
2 subsidiaries of Cinergy Corp. I was Vice President for Michels Concrete
3 Construction, Inc., during 1998 and returned to Cinergy Corp.'s Gas Engineering
4 Department in 1999 to design, manage, and construct the C-314 natural gas
5 pipeline. In 2000, I was promoted to Manager, Contractor Construction. In this
6 position, I helped design the Accelerated Main Replacement Program (AMRP)
7 for both Ohio and Kentucky. In addition to keeping my responsibilities for the C-
8 314 project, I managed the construction activities for replacing the cast iron and
9 bare steel pipe under the AMRP. In 2002, I was promoted to Manager, Gas
10 Engineering. I was responsible for managing the engineering activities, the capital
11 expenditures for Gas Operations in the gas distribution systems of Duke Energy
12 Ohio and Duke Energy Kentucky, Inc., and the C-314 project. In 2006, I was
13 promoted to General Manager, Gas Engineering. In addition to my continued
14 responsibilities for gas engineering activities and capital expenditures, I was
15 responsible for construction activities for the AMRP, street improvements,
16 pressure improvements, and major projects. In September 2010, I was promoted
17 to General Manager, Gas Field and System Operations. In that role, I was
18 responsible for managing the construction, installation, operation, and
19 maintenance of the natural gas distribution systems of Duke Energy Ohio and
20 Duke Energy Kentucky. In 2017, I was promoted to my current position of Vice
21 President, Gas Operations.

1 **Q. PLEASE SUMMARIZE YOUR RESPONSIBILITIES AS VICE**
2 **PRESIDENT, GAS OPERATIONS.**

3 A. I am responsible for the following functions within Duke Energy's natural gas
4 business unit: operations; maintenance; distribution construction; and
5 measurement and regulation. This business unit serves natural gas customers in
6 Ohio, Kentucky, North Carolina, South Carolina, and Tennessee. Approximately
7 800 Duke Energy company personnel and hundreds of contractor personnel are
8 involved in these activities on behalf of the five jurisdictions mentioned above.

9 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE OHIO POWER**
10 **SITING BOARD?**

11 A. Yes. I testified before the Ohio Power Siting Board (Board) in connection with
12 the C-314 project, in Case No. 01-520-GA-BTX.

13 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
14 **PROCEEDING?**

15 A. The purpose of my testimony is to provide an overview of Duke Energy Ohio's
16 natural gas distribution system in southwest Ohio, which overview will also
17 include the basis for the Application filed in this proceeding. I further discuss
18 certain of the criteria necessary for approval and demonstrate how the Company's
19 Application has met such criteria. Specifically, I discuss the design, safety and
20 construction criteria used by the Company in its pipeline proposal. I then discuss
21 the public interaction and participation that occurred as part of the Company's
22 proposal and the economic impact of the proposed pipeline. Finally, I introduce

1 the other witnesses who will provide direct testimony on behalf of Duke Energy
2 Ohio in this proceeding.

**II. OVERVIEW OF DUKE ENERGY OHIO'S
NATURAL GAS DISTRIBUTION SYSTEM**

3 **Q. PLEASE PROVIDE AN OVERVIEW OF DUKE ENERGY OHIO'S**
4 **NATURAL GAS DISTRIBUTION SYSTEM.**

5 A. Duke Energy Ohio has been providing reliable natural gas distribution service to
6 our customers in southwest Ohio for over 180 years. To do so, we depend upon an
7 integrated natural gas system that, today in Ohio, includes over 70 miles of
8 transmission main, 5,600 miles of distribution main, and more than 5,700 miles of
9 service lines. Our system has not always been this extensive. Rather, our natural
10 gas distribution system has developed over time, originating from manufactured
11 gas plants located adjacent to the Ohio River and in close proximity to the city of
12 Cincinnati and our then-current customer base in the Cincinnati area. This system
13 was built to distribute natural gas from the south to the north, initially receiving
14 the vast majority of natural gas from the Columbia Gulf Transmission pipelines
15 (now owned by Trans Canada) located in southern Kentucky. But our local
16 community expanded, as businesses grew and more residents and businesses
17 located here, and our natural gas system needed to expand as well. Because our
18 system expanded to serve the growth in our communities, it necessarily comprises
19 infrastructure installed at varying points of time, including infrastructure that is
20 now nearing the end of its useful life.

21 **Q. HOW IS NATURAL GAS RECEIVED IN THE DUKE ENERGY OHIO**
22 **SERVICE AREA?**

1 A. A complex interstate transmission natural gas pipeline network exists across the
2 United States to safely and efficiently transport natural gas from natural gas
3 gathering lines to areas of demand. Natural gas is transported through these
4 interstate transmission pipelines at high pressures (typically at pressure levels
5 between 600 pounds per square inch gauge (psi) and 1200 psi and in some cases,
6 even up to 2,000 psi) in order to move the natural gas over substantial distance.

7 The Duke Energy Ohio distribution system is connected to these interstate
8 transmission pipelines through measurement and pressure regulating stations
9 located along its perimeter. Those stations interconnect with the interstate
10 pipelines and allow for a reduction in pressure before moving natural gas into our
11 delivery system. In total, Duke Energy Ohio has twenty-one such stations
12 connected to the Texas Gas Transmission, Texas Eastern Transmission, ANR
13 Pipeline, Trans Canada, KO Transmission Company (KOT), and Duke Energy
14 Kentucky systems. Our subsidiary, KOT, owns the Foster Station, located in
15 Kentucky. Because of the current design of the system, approximately 55 percent
16 of the peak design day load is supplied through the Foster Station.

17 **Q. HOW IS NATURAL GAS MOVED WITHIN THE DUKE ENERGY OHIO**
18 **SYSTEM AND, ULTIMATELY, TO CUSTOMERS' HOMES AND**
19 **BUSINESSES?**

20 A. After passing through the pressure regulating stations, natural gas is transported
21 through our integrated system to customers' homes and businesses via a series of
22 lines of varying sizes and pressures. Natural gas is ultimately delivered to
23 customers' homes and businesses through service lines.

1 **Q. PLEASE ELABORATE ON THE AGING INFRASTRUCTURE THAT IS**
2 **A PART OF DUKE ENERGY OHIO’S NATURAL GAS DELIVERY**
3 **SYSTEM.**

4 A. As I previously mentioned, our system was constructed over time, as the needs of
5 our customers and our communities evolved. Because of this, our current system
6 includes infrastructure installed in the recent past as well as infrastructure
7 installed many decades ago. Although this older infrastructure has been properly
8 maintained and continues to function safely, it is nearing the end of its useful life
9 or may otherwise impose operational constraints on our system.

10 By way of example and as further discussed in the Direct Testimony of
11 Adam Long, two propane-air peaking plants and associated storage facilities,
12 initially constructed in the mid-20th century are integral to Duke Energy Ohio’s
13 present ability to reliably serve our approximately 438,000 natural gas customers.
14 These propane-air peaking plants supplement our natural gas supply and system
15 pressure on peak days; that is, they supplement the supply and the pressure on
16 days during the winter heating season on which our customers are using large
17 amounts of natural gas to heat their homes and operate their businesses, generally
18 due to very cold weather. Approximately 10 percent of our needed supply on peak
19 days is provided through these propane-air peaking plants. Although they are an
20 integral part of our current system, they are at the end of their useful lives and
21 must be retired, as discussed by Mr. Long.

22 Also, important to our constant service obligation is what we refer to as
23 the “backbone” of the Duke Energy Ohio natural gas delivery system. It is this

1 backbone that, in part, allows us to bring natural gas from both the north and
2 south supply points into Hamilton County. Some of the critical backbone
3 components in the current system are: Line A, which runs north to south through
4 central area neighborhoods in Hamilton County; Line V, which runs east to west;
5 and the various Line AM natural gas pipelines, which move gas from the Foster
6 Station to points in both Ohio and Kentucky. Branching off Line A are lateral
7 pipelines that provide natural gas supply to the sizeable residential, commercial,
8 and industrial customer base in the central area. Line A, which was constructed
9 between the 1940s and 1960s, varies in diameter and, in the central Hamilton
10 County area, carries natural gas at a maximum allowable operating pressure
11 (MAOP) of 150 psi. This line is nearing the end of its useful life and, as discussed
12 below and in Mr. Long's testimony, must be upgraded.

13 **Q. YOU MENTIONED MAXIMUM ALLOWABLE OPERATING PRESSURE**
14 **(MAOP). WHAT IS THE DIFFERENCE BETWEEN MAOP AND**
15 **TYPICAL/NORMAL OPERATING PRESSURE?**

16 A. The MAOP is the pressure for which a line has been designed, constructed, and
17 pressure tested as explained below and, therefore, is the maximum pressure at
18 which the facility can be operated per Federal regulations. The current post-
19 construction pressure testing requirement for a class 4 location (*e.g.* downtown
20 area) is 150 percent of the planned MAOP. Mr. Paskett provides more detail of
21 the testing requirements in his testimony. The typical/normal operating pressure
22 of a line is the pressure at which the operator expects it to operate on a typical day
23 and is often substantially less than its MAOP.

1 **Q. HOW DOES DUKE ENERGY OHIO APPROACH THE ONGOING**
2 **OPERATION AND MAINTENANCE OF ITS NATURAL GAS DELIVERY**
3 **SYSTEM?**

4 A. We employ a proactive approach, continually monitoring and assessing our
5 system and the infrastructure that supports it. Toward this end, we will also
6 proactively implement system replacements or improvements so as to provide
7 highly reliable service to our customers who depend upon natural gas for their
8 heating, water heating, business and process needs. An example of this proactive
9 approach can be found in our recently completed AMRP. Through that program,
10 we replaced - bare steel and cast iron main – more than 1,100 miles of main – and
11 120,000 associated, metallic main-to-curb service lines on an accelerated basis.
12 This allowed us to eliminate obsolete materials and more efficiently serve our
13 customers. Our AMRP has been replicated across the state and across the country
14 as other local distribution companies similarly confront issues attendant to aging
15 infrastructure.

III. OVERVIEW OF APPLICATION

16 **Q. PLEASE BRIEFLY SUMMARIZE THE PURPOSE OF DUKE ENERGY**
17 **OHIO’S APPLICATION IN THIS PROCEEDING.**

18 A. Duke Energy Ohio is seeking approval from the Board for a certificate for the
19 construction, operation, and maintenance of a new, 20-inch, high-pressure, natural
20 gas distribution pipeline (proposed pipeline) that will allow the Company to retire
21 propane-air plants and associated facilities that are nearing the end of their useful
22 lives and to improve the balance of supply in its southwest Ohio service area. The

1 proposed pipeline will also support the replacement of other aging infrastructure
2 without service interruptions to customers. The proposed pipeline will be
3 approximately 14 miles long, connecting from the existing station that feeds Line
4 WW, located at the intersection of Hamilton, Warren, and Butler Counties, to
5 Line V, located in central Hamilton County.

6 The proposed pipeline reflects the next stage in the Company's ongoing
7 attention to its natural gas distribution system and allows us to continue the
8 operational efficiencies and improvements that were planned and initiated by the
9 construction of the C-314 pipeline in the northern part of our service territory in
10 2003.

11 **Q. PLEASE DISCUSS HOW THE PROPOSED PIPELINE WILL ALLOW**
12 **DUKE ENERGY OHIO TO RETIRE EXISTING PROPANE-AIR**
13 **PEAKING PLANTS AND ASSOCIATED FACILITIES THAT ARE**
14 **NEARING THE END OF THEIR USEFUL LIVES.**

15 A. Duke Energy Ohio depends on its aging propane-air peaking plants for
16 approximately 10 percent of the system supply on peak days. As Mr. Long
17 explains in more detail, these plants must be retired. However, if they were to be
18 taken out of service today, without a viable system supply alternative in place,
19 Duke Energy Ohio could not serve approximately 50,000 customers on peak
20 winter days. Given current system capacity restrictions, there is no viable
21 alternative to these propane-air facilities. It is not possible to draw additional
22 supply through the Foster Station, based on capacity available and pressure
23 requirements to that point, and additional supply from north of our system is

1 impossible under the current configuration of pipelines, as will be discussed
2 further by Mr. Long. The proposed pipeline is the best option available that will
3 enable us to serve all of our customers, day after day, including on peak winter
4 days, and avoid widespread service outages during peak cold weather events.

5 **Q. CAN YOU PLEASE DESCRIBE WHAT IS MEANT BY A WIDESPREAD**
6 **SERVICE OUTAGE?**

7 A. When we refer to a widespread service outage, we are talking about a situation in
8 which a significant portion of our service area is shut in, or not receiving natural
9 gas. It is an outage that would be based on lack of sufficient natural gas supply or
10 adequate pressure in the system.

11 **Q. PLEASE EXPLAIN WHY A WIDESPREAD SERVICE OUTAGE IS SO**
12 **PROBLEMATIC.**

13 A. Natural gas service outages are rare. When members of the public think of losing
14 utility service, they often think of temporary outages in their electric service.
15 However, one should not attempt to equate a natural gas outage with an electric
16 outage, as the systems and manner of restoration are entirely different. If we lose
17 a substantial portion of our customers because of the unavailability of natural gas
18 supply or low system pressures, controlling regulations and Company procedures
19 – as well as critical safety considerations – preclude us from merely introducing
20 more natural gas into the system and resuming service.

21 In order to avoid a serious safety risk, we must first purge the piping
22 system to ensure that it is devoid of air. Prior to purging the system of air, each
23 individual customer's home or business must be turned off so natural gas is not

1 introduced into the structure during the purging process. Once the system is
2 devoid of air, we can restore service to the individual customer's home or
3 business. This requires a visit by qualified personnel to the customer's premise, to
4 perform a safety inspection to ensure that pilot lights are properly lit, appliances
5 and equipment are safely working, and house piping can safely accept the natural
6 gas. There is, therefore, a substantial time element associated with widespread
7 service outages; indeed, it could be a long period of time before natural gas
8 service could be restored to all affected customers. This is particularly
9 problematic under current circumstances, when a shortage-related loss of service
10 would likely occur during extremely cold weather. Such outages would have
11 significant consequences to our customers and communities. It is, therefore,
12 imperative that Duke Energy Ohio continue to proactively maintain and upgrade
13 the system. The proposed pipeline reflects that proactive approach.

14 **Q. PLEASE DISCUSS HOW THE PROPOSED PIPELINE WILL ALLOW**
15 **DUKE ENERGY OHIO TO IMPROVE THE BALANCE OF SUPPLY IN**
16 **ITS SOUTHWEST OHIO SERVICE AREA.**

17 A. As I have mentioned, approximately 55 percent of the natural gas supply in our
18 service area on a peak day is received through the Foster Station, and the
19 transmission lines that feed into the Foster Station are already operating at or near
20 capacity. On a cold weather peak demand day, the Foster Station would be at
21 capacity and could not provide the additional supply and pressure needed to avoid
22 widespread loss of service to customers. The proposed pipeline, however, would
23 allow for the movement of this needed additional supply into the system, thereby

1 somewhat reducing the critical dependence on the Foster Station and propane-air
2 plants.

3 **Q. WILL THE PROPOSED PIPELINE ELIMINATE DUKE ENERGY**
4 **OHIO'S DEPENDENCE ON SOUTHERN INTERSTATE FACILITIES?**

5 A. No, but it will improve the balance of supply.

6 **Q. PLEASE EXPLAIN WHY THE PROPOSED PIPELINE WILL NOT**
7 **ELIMINATE THE SUBSTANTIAL DEPENDENCE ON THE FOSTER**
8 **STATION.**

9 A. The proposed pipeline will allow us to bring increased pressure and volumes of
10 natural gas into our system from the north. Nevertheless, the proposed pipeline
11 cannot eliminate our need to access substantial supply from the south, through the
12 Foster Station. As Mr. Long testifies, our piping system network modeling has
13 indicated that the Foster Station would continue to serve approximately 45 to 50
14 percent of our load on a peak day. In addition, the Central Corridor Pipeline will
15 provide 10% of the required system supply to make up for the retirement of the
16 propane-air plants, as described in Mr. Long's testimony.

17 **Q. PLEASE DISCUSS WHY DUKE ENERGY OHIO BELIEVES THERE IS A**
18 **NEED TO UPGRADE EXISTING, AGING INFRASTRUCTURE.**

19 A. The natural gas industry is highly regulated through the U.S. Department of
20 Transportation (DOT) and its Pipeline and Hazardous Materials Safety
21 Administration (PHMSA). The pipeline safety regulations implemented by
22 PHMSA are, over time, becoming more stringent. Consequently, in compliance
23 with such regulations, Duke Energy Ohio must subject the relevant portions of

1 our natural gas pipeline delivery system to integrity testing. In order to complete
2 these tests, the Company may be required to take a line out of service. Absent an
3 existing, alternate source of supply, the customers who depend on that line for
4 their daily needs may experience an extended outage. This is not an ideal outcome
5 and, as such, Duke Energy Ohio evaluates alternatives that will provide safe and
6 reliable service to our customers while we comply with applicable pipeline safety
7 regulations. Additionally, we regularly and proactively evaluate whether any
8 existing infrastructure, because of its condition, is near the end of its useful life
9 and warrants replacement.

10 **Q. PLEASE EXPLAIN HOW THE PROPOSED PIPELINE WILL SUPPORT**
11 **THE REPLACEMENT OR UPGRADE OF EXISTING, AGING**
12 **INFRASTRUCTURE WITHOUT CUSTOMER SERVICE**
13 **INTERRUPTIONS.**

14 A. For purposes of answering this question, I reference Line A – one of the critical
15 components of our system. This pipeline operates at a maximum of 150 psi in
16 Hamilton County and moves natural gas from the northern parts of our system
17 into the core of our service area, generally paralleling the routes that were initially
18 considered for the proposed Central Corridor Pipeline. Numerous laterals branch
19 off Line A to provide natural gas supply to residents and businesses in central
20 Hamilton County. There is currently no alternative method by which the
21 Company can serve these customers.

22 Much of Line A was constructed between the 1940s and 1960s, prior to
23 the implementation of today's pipeline safety regulations. Consequently, Line A

1 was not designed to meet current pipeline safety requirements. The Company
2 must therefore upgrade the line in conformity with these requirements. Without
3 the proposed pipeline, the Company could either only replace Line A in very short
4 sections, with the customers served by each such section experiencing a lengthy
5 outage as a result, or try to provide alternative supply, such as by constructing
6 pipeline laterals to loop (parallel) the system. On the other hand, once the
7 proposed pipeline is in operation, the Company expects that the new line will
8 facilitate a two-way feed providing system supply from both the north and south
9 on Line A. The proposed pipeline should, therefore, support replacement of Line
10 A without concomitant outages.

11 **Q. YOU PREVIOUSLY MENTIONED LINE C-314. WHAT IS THE**
12 **SIGNIFICANCE OF THAT LINE TO THE PIPELINE PROPOSED IN**
13 **THIS PROCEEDING?**

14 A. Under my active engineering, management, and oversight, Duke Energy Ohio
15 installed the C-314 line in 2003 to provide safe and reliable natural gas to address
16 rapid load growth in the area. The C-314 pipeline was connected to the existing
17 natural gas transmission system north of Hamilton County, in order to ensure
18 continued supply of natural gas to the region and in anticipation of this current
19 project, as part of our plan to continually diversify our north/south supply. This
20 line has functioned as intended and without incident since being installed. But
21 existing pressure and supply limitations in other lines, located to the south of Line
22 C-314, affect the Company's ability to take full advantage of the capacity of Line
23 C-314. The proposed pipeline will eliminate some of these constraints, allowing

1 the Company to bring increased pressure and supply to the system via the north.
2 Mr. Long discusses the details around this issue.

3 **Q. DUKE ENERGY OHIO HAD INITIALLY CONTEMPLATED THE**
4 **CONSTRUCTION OF A LARGER PIPELINE. WHAT PROMPTED THE**
5 **CHANGE IN DESIGN?**

6 A. As I discuss in more detail below, Duke Energy Ohio engaged with local officials
7 throughout Hamilton County as well as our customers who live and work in
8 southwest Ohio. Through these interactions, we heard concerns regarding the size
9 and operating pressure of the proposed pipeline, as initially contemplated, given
10 the routes under consideration. Thus, although the Company was, and remains,
11 committed to addressing our aging infrastructure and supply constraints, we are
12 also sensitive to the concerns of our customers, all of whom we have an
13 obligation to serve. Consequently, based upon our continued dialogue with and
14 comments from our customers and the public, we redesigned the proposed
15 pipeline to reduce both the diameter and MAOP.

16 **Q. WHAT IS THE SIGNIFICANCE OF THESE MODIFICATIONS**
17 **RELATIVE TO THE MANNER IN WHICH DUKE ENERGY OHIO WILL**
18 **INSTALL AND MAINTAIN THE PIPELINE?**

19 A. Given the design specifications (*i.e.*, diameter and pressure) of the proposed
20 pipeline, it is classified as a high-pressure distribution pipeline under the
21 applicable federal natural gas pipeline safety regulations, as explained in the Staff
22 Report in this proceeding. However, Duke Energy Ohio will install and maintain
23 the proposed pipeline consistent applying enhanced design, construction,

1 operation and assessment criteria, which I will. Duke Energy Ohio witness Bruce
2 Paskett discusses these regulations and the design of the proposed pipeline in
3 greater detail.

4 **Q. HOW HAS THE SUBSTANTIAL REDUCTION IN BOTH SIZE AND**
5 **PRESSURE OF THE PROPOSED PIPELINE AFFECTED THE**
6 **COMPANY'S OBJECTIVES TO RETIRE THE PROPANE-AIR**
7 **PEAKING PLANTS, IMPROVE THE BALANCE OF SUPPLY WITHIN**
8 **ITS DELIVERY SYSTEM, AND SUPPORT THE UPGRADE OF AGING**
9 **INFRASTRUCTURE WHILE AVOIDING SERVICE INTERRUPTIONS?**

10 A. The larger pipeline that we originally proposed would have allowed us to more
11 effectively improve the balance of supply. Due to the reductions associated with
12 the proposed pipeline, we will certainly improve the balance of supply and allow
13 for increased pressures and volumes of gas to be brought into the system from the
14 north. However, without additional upgrades and enhancements to the system, we
15 will not achieve the balance or peak day system requirements that would have
16 otherwise been realized through the larger pipeline as originally designed.
17 Consequently, we will also need to assess the operating pressures of other lines in
18 our system and, as necessary, perform upgrades so that we can continue to
19 improve the balance of supply. Notwithstanding the significant reductions in its
20 size and pressure, the proposed pipeline, once operational, will allow us to replace
21 the propane-air peaking plants and upgrade other existing infrastructure without
22 service interruptions and/or construction of more expensive alternatives.

1 **Q. IF THE COMPANY IS ABLE TO ACCOMPLISH THESE OBJECTIVES**
2 **WITH A PIPELINE OF SMALLER SIZE AND PRESSURE, WHY DID IT**
3 **INITIALLY PROPOSE A PIPELINE OF LARGER DIAMETER AND**
4 **HIGHER MAOP?**

5 A. Duke Energy Ohio's initial proposal was predicated upon the desire to more
6 quickly achieve an overall system solution. Due to the concerns raised by
7 members of the public, Duke Energy Ohio is pursuing a more systematic
8 approach over a longer period of time.

9 **Q. THE PROPOSED PIPELINE HAS AN MAOP OF 500 PSI. IS IT**
10 **PRACTICAL OR PROBABLE THAT THE MAOP WOULD BE**
11 **INCREASED IN THE FUTURE?**

12 A. No.

13 **Q. PLEASE ELABORATE.**

14 A. Natural gas is moved through our system by pressure. All of that pressure comes
15 from the interstate transmission companies that deliver the natural gas to the Duke
16 system. As the natural gas moves through our system, it loses pressure. In the
17 north, the MAOP of Line C-314 is 670 psi, which is the maximum pressure we
18 can obtain from the transmission company. Regardless of that MAOP, the
19 typical/normal operating pressure of Line C-314 is between 550 and 600 psi.
20 Given the pressure loss I mentioned, the pressure received at the High Point
21 station (the southern terminus of Line C-314) is only slightly above 500 psi.

1 **Q. WHY IS A BALANCE OF SUPPLY, NORTH TO SOUTH, CRITICAL TO**
2 **THE CONTINUED SAFE AND RELIABLE OPERATION OF THE DUKE**
3 **ENERGY OHIO NATURAL GAS DELIVERY SYSTEM?**

4 A. This is not a new concept. There have been recognized limitations for both supply
5 and pressure coming from the south and, absent ongoing improvements, outages
6 or restrictions would have occurred. We have been balancing the north-to-south
7 supply since natural gas has been available to the system. Indeed, Line A was
8 built in recognition of this need. Line C-314 provides another example of
9 additional infrastructure added in furtherance of our continuing objective to
10 enable the use of more natural gas from the north. This fosters flexibility and
11 agility of the system in critical operations to avoid outages and to allow the
12 uninterrupted provision of service in our area.

13 **Q. YOU PREVIOUSLY MENTIONED INTEGRITY MANAGEMENT**
14 **REQUIREMENTS IN RESPECT OF LINE A. WILL THE PROPOSED**
15 **PIPELINE BE SUBJECT TO INTEGRITY MANAGEMENT**
16 **REQUIREMENTS?**

17 A. Yes. The integrity of the proposed pipeline will be addressed in the Company's
18 Distribution Integrity Management Program (DIMP), which has been developed
19 consistent with PHMSA pipeline safety regulations.

20 **Q. PLEASE ELABORATE ON THIS PHMSA REGULATION.**

21 A. In 2009, PHMSA established integrity management requirements for gas
22 distribution pipeline systems. Prior to that time, formal integrity management
23 program requirements had applied only to gas transmission and hazardous liquid

1 pipelines. Generally speaking, integrity management requirements mandate that
2 every natural gas distribution company establish and implement a program to
3 continually assess its system, identify and rank risks, implement measures to
4 address risk, monitor results, and evaluate effectiveness. Duke Energy Ohio's
5 DIMP is a dynamic program in that we are providing a proactive approach to the
6 assessment of our system and mitigation of risk, using data to drive our decision-
7 making.

8 **Q. WHILE THE APPLICATION WAS UNDER CONSIDERATION BY THE**
9 **BOARD, THE COMPANY ASKED FOR A TEMPORARY PAUSE IN THE**
10 **REVIEW PROCESS IN ORDER TO PERFORM ADDITIONAL**
11 **ENVIRONMENTAL ANALYSIS. WHY WAS THAT ANALYSIS NOT**
12 **INCLUDED IN THE APPLICATION AS ORIGINALLY FILED?**

13 A. Applications, such as this one, are required to include two proposed routes. Most
14 often, Board Staff agrees with the applicant concerning which of the routes is
15 preferable. Therefore, applicants often have not proceeded with design of the
16 alternate route as far as they have with design of the preferred route, as of the
17 initial filing date. However, sometimes Board Staff prefers the alternate route, as
18 occurred in this case. In that situation, the applicant may find that advancement of
19 the design is merited. Duke Energy Ohio, as a prudent operator, found itself in
20 that position and asked for additional time so that this work could be
21 accomplished.

IV. CENTRAL CORRIDOR DESIGN, SAFETY AND CONSTRUCTION

1 **Q. WHAT IS THE PROPOSED DESIGN AND ENGINEERING OF THE**
2 **CENTRAL CORRIDOR PIPELINE?**

3 A. The proposed pipeline will be constructed of carbon steel pipe with fusion-bonded
4 epoxy coating. The pipe will be manufactured in accordance with American
5 Petroleum Institute (API) Specification 5L, Grade X-60 (specified minimum yield
6 strength (SMYS) of 60,000 pounds per square inch).

7 **Q. IS THE CENTRAL CORRIDOR PIPELINE DESIGNED AS A**
8 **TRANSMISSION OR DISTRIBUTION LINE?**

9 A. The pipeline is designed and will be operated as a high-pressure distribution line.

10 **Q. WHAT IS THE DIFFERENCE BETWEEN A DISTRIBUTION LINE AND**
11 **A TRANSMISSION LINE?**

12 A. Pursuant to PHMSA pipeline safety regulations and as explained in more detail in
13 the Staff Report and by Mr. Paskett, a transmission line is a pipeline, other than a
14 gathering line, that: (1) Transports gas from a gathering line or storage facility to
15 a distribution center, storage facility, or large volume customer that is not
16 downstream from a distribution center; (2) operates at a hoop stress of 20 percent
17 or more of SMYS; or (3) transports gas within a storage field. Typically,
18 transmission lines are larger, higher-pressure pipelines and are, therefore, subject
19 to more stringent regulatory and safety standards than distribution lines.

1 **Q. DOES THE PROPOSED PIPELINE MEET THE CRITERIA FOR A**
2 **TRANSMISSION LINE?**

3 A. No, the proposed pipeline does not meet any of the criteria for a gas transmission
4 pipeline. It does not transport gas from a gathering line or storage facility to a
5 distribution center, storage facility, or large volume customer that is not
6 downstream from a distribution center; it will operate at a hoop stress of 19.0
7 percent SMYS at MAOP; and it does not transport gas within a storage field.
8 Witness Mr. Paskett explains this further in his testimony.

9 **Q. WHAT DOES SMYS MEAN?**

10 A. In simple terms, the SMYS of a pipeline is the minimum yield strength of the
11 steel pipe material that is guaranteed by the pipe manufacturer. The actual pipe
12 yield strength provided is generally much higher than the minimum yield strength
13 guaranteed by the manufacturer, which results in even a higher level of safety.
14 The stress created on a steel pipeline by the gas pressure is based on the pressure,
15 diameter, and wall thickness of the pipeline according to the following formula:

16
$$S = PD/2t$$

17 Where S = stress on the pipe

18 P = gas pressure (psi-)

19 D = Diameter of the pipeline (inches), and

20 t = wall thickness of the pipe (inches)

21 The percent SMYS is the relative safety factor of the pipeline. The percent SMYS
22 is the percentage of the stress level of the pipeline due to gas pressure (S)
23 compared to the stress level at which the steel pipe will begin to “yield” or

1 deform. A pipeline may be expected to begin to deform at a stress level of 100
2 percent SMYS. As I previously mentioned, the proposed pipeline will be at 19.0
3 percent SMYS at the MAOP of 500 psi. It is noteworthy that, at the
4 typical/normal operating pressure of 400 psi, the pipeline would be operating at
5 only 15.2 percent SMYS.

6 **Q. FROM A PIPELINE INTEGRITY PERSPECTIVE, WHAT DOES IT**
7 **MEAN IF THE PROPOSED PIPELINE IS AT 19 PERCENT SMYS?**

8 A. The SMYS of the material to be used for the proposed pipeline is 60,000 PSI. It
9 takes a pressure of 2628 PSI to produce a stress level of 60,000 PSI based on the
10 pipe attributes selected. That is, 60,000 PSI is the minimum yield strength
11 guaranteed by the manufacturer. At 500 PSI, the Central Corridor will have a
12 stress level of 19.0 percent SYMS which is a safety factor of 5.25 relative to the
13 manufacturer's yield strength. In fact, the typical/normal operating pressure of
14 this line will be approximately 400 PSI. That pressure will be at 15.2 percent
15 SYMS providing a safety factor of 6.58.

16 **Q. WHAT ARE THE SAFETY BENEFITS OF THE PROPOSED PIPELINE**
17 **BEING OPERATED AT 19 PERCENT SMYS?**

18 A. Distribution pipelines are operated at lower pressures that ensure, in the very
19 unlikely event of an integrity issue, the pipeline will leak instead of rupture.
20 Witness Paskett addresses the safety aspects in more detail. Duke Energy
21 designed the proposed pipeline as a distribution line, to enhance the safety of the
22 pipeline.

1 **Q. HOW DID DUKE ENERGY OHIO FURTHER TAKE INTO ACCOUNT**
2 **SAFETY AND RELIABILITY IN THE DESIGN AND PROPOSED**
3 **OPERATION OF THE CENTRAL CORRIDOR PIPELINE?**

4 A. Although the proposed pipeline clearly is designed as a distribution line, Duke
5 Energy Ohio has applied enhanced line safety criteria in its design and proposed
6 construction plan.

7 **Q. WHY DID DUKE ENERGY OHIO APPLY ENHANCED LINE SAFETY**
8 **CRITERIA IN ITS DESIGN AND PROPOSED CONSTRUCTION PLAN?**

9 A. Safety and reliability are absolute priorities for Duke Energy Ohio in all areas of
10 our business and services. Given the location of the proposed routes, Duke Energy
11 Ohio intentionally designed this project to exceed the design assessment and
12 construction and assessment requirements for distribution lines. These enhanced
13 design, construction and assessment criteria will ensure the safety and continued
14 integrity of the facilities for the life of the pipeline.

15 **Q. PLEASE SUMMARIZE THE ENHANCED DESIGN CRITERIA THAT**
16 **DUKE ENERGY OHIO WILL APPLY TO THE CENTRAL CORRIDOR**
17 **PROJECT?**

18 A. The proposed pipeline will be constructed of pipe having an outside diameter of
19 20 inches and a wall thickness equal to or greater than .438 inch. This wall
20 thickness is more than twice the wall thickness required by Federal pipeline safety
21 regulations for a transmission line in a Class 4 location.

22 Unlike transmission lines, high-pressure distribution lines are not required
23 to be designed to accommodate passage of in-line inspection (ILI) tools.

1 However, the Company has designed the proposed pipeline to accommodate the
2 passage of ILI devices.

3 In addition, there is no requirement for high-pressure distribution lines to
4 have specific valve spacing. Nevertheless, the proposed pipeline is designed with
5 5-mile valve spacing, which is consistent with the Federal requirements for Class
6 4 transmission line valve spacing.

7 Finally, as an added protection, the proposed pipeline is designed with
8 Remote Control Valves (RCVs) at beginning and end points and also at
9 intermediate block valves. A total of four RCVs will be installed. The RCVs will
10 allow the Company to monitor the pipeline and have immediate control to shut-
11 down the flow of natural gas through the distribution system in the unlikely event
12 of a problem.

13 **Q. PLEASE SUMMARIZE THE ENHANCED CONSTRUCTION CRITERIA**
14 **THAT DUKE ENERGY OHIO WILL APPLY TO THE PROPOSED**
15 **PIPELINE?**

16 A. During construction, the proposed pipeline will be installed and pressure tested in
17 accordance with transmission line requirements to ensure safety, minimize
18 stresses, and protect the coating from damage. That will include weld x-rays and
19 inspections by qualified personnel.

20 The Company will install the pipeline at a depth of approximately 48
21 inches of cover. This depth is twice that required for distribution lines and a full
22 foot deeper than required for transmission lines pursuant to PHMSA regulations.
23 This additional depth provides additional safety protection for the pipeline.

1 The Company also will perform hydro-static pressure testing, consistent
2 with transmission line requirements, after installing the pipe in the ditch. The
3 pipeline will be strength-tested for a minimum of eight hours at a minimum
4 pressure of 1.5 times MAOP (that is, at a minimum pressure of 750 PSIG).

5 **Q. WHAT ARE SOME OF THE ENHANCED OPERATION AND**
6 **ASSESSMENT CRITERIA THAT DUKE ENERGY OHIO WILL APPLY**
7 **TO THE PROPOSED PIPELINE?**

8 A. Duke Energy Ohio will perform an in-line integrity assessment utilizing an ILI
9 device prior to placing the proposed pipeline into service, then again within ten
10 years, and then every seven years thereafter. As I previously mentioned,
11 distribution lines are not required to be assessed utilizing ILI devices.
12 Nonetheless, Duke Energy Ohio will assess the integrity of the proposed pipeline
13 utilizing this technology on a regular basis.

14 **Q. WHAT IS YOUR OPINION REGARDING THE DESIGN,**
15 **CONSTRUCTION AND PROPOSED OPERATION OF THE PROPOSED**
16 **PIPELINE?**

17 A. The proposed pipeline demonstrates Duke Energy Ohio's commitment to provide
18 safe and reliable natural gas services to its customers. The Company has gone
19 above and beyond minimum regulatory requirements and designed this system
20 with safety as a priority. This is clear from our discussion regarding the overall
21 design, the selection of high-quality pipeline materials, the construction plan, 100
22 percent x-ray inspections, enhanced post-construction pressure testing, lower
23 operating pressure and a more robust integrity assessment using ILI tools. All of

1 these factors contribute to my opinion that the proposed pipeline will be a safe
2 and reliable replacement for the propane facilities and will provide essential
3 system supply flexibility for the life of the pipeline.

V. PUBLIC INTERACTION AND PARTICIPATION

4 **Q. PLEASE IDENTIFY THE COUNTIES, TOWNSHIPS, VILLAGES, AND**
5 **CITIES WITHIN 1,000 FEET OF THE CENTERLINES OF BOTH THE**
6 **PREFERRED ROUTE AND THE ALTERNATE ROUTE.**

7 A. Both routes are located within Hamilton County. The preferred route crosses or is
8 located within 1,000 feet of the following cities, villages, or townships: Blue Ash,
9 Cincinnati, Columbia, Dillonvale, Deer Park, Fairfax, Kenwood, Madeira,
10 Madisonville, Montgomery, Sharonville, Silverton, and Sycamore.

11 The alternate route is within 1,000 feet of the boundary of the following
12 cities, villages, or townships: Amberley Village, Blue Ash, Bond Hill, Cincinnati,
13 Dillonvale, Evendale, Golf Manor, Norwood, Pleasant Ridge, Reading, Roselawn,
14 Sharonville, and Sycamore.

15 **Q. DID DUKE ENERGY OHIO CONTACT LOCAL OFFICIALS**
16 **REGARDING THE PROPOSED PIPELINE THAT IS THE SUBJECT OF**
17 **THE APPLICATION IN THIS PROCEEDING?**

18 A. Duke Energy Ohio contacted federal, state, and local officials regarding the
19 proposed pipeline. Attachment GJH-1 to my testimony is a list of those officials
20 so contacted. Attachment GJH-2 is a list of the public officials who were served
21 with a copy of the accepted Application on March 23, 2017. The accepted
22 Application was also provided to the public library. By letter docketed on March

1 30, 2017, Duke Energy Ohio filed with the Board proof of satisfaction of the
2 applicable service requirements.

3 I would further add that, throughout this process, Duke Energy Ohio has
4 continued to engage with local officials to discuss the proposed pipeline and
5 respond to questions or concerns that such officials may have.

6 **Q. PLEASE PROVIDE A DESCRIPTION OF DUKE ENERGY OHIO'S**
7 **PUBLIC INFORMATION EFFORTS AND INTERACTIONS WITH**
8 **REGARD TO THE PROPOSED PIPELINE.**

9 A. Duke Energy Ohio has proactively engaged with members of the public, using a
10 variety of communication methods to interact with our customers and continue a
11 dialogue concerning the proposed pipeline. I discuss these various interactions
12 below.

13 Prior to filing our Application, Duke Energy Ohio conducted three public
14 informational meetings. Such meetings were held on March 22, March 23, and
15 June 15, 2016. Additionally, on April 20, 2016, Duke Energy Ohio met with
16 residents of Blue Ash to discuss one of the routes then under consideration.
17 Further, at the request of the Hamilton County Commissioners, the Company
18 participated in a public symposium on July 27, 2016, at which time Company
19 representatives provided further detail on the proposed pipeline project and
20 responded to questions from local officials and community leaders. Subsequent to
21 the filing of the Application on September 13, 2016, Duke Energy Ohio held a
22 fourth public informational meeting. This meeting was conducted on January 26,
23 2017.

1 **Q. PLEASE DISCUSS THE FORMAT OF THE THREE PUBLIC**
2 **INFORMATIONAL MEETINGS HELD PRIOR TO THE FILING OF THE**
3 **APPLICATION IN THIS PROCEEDING.**

4 A. An “open house” format was used for each of these three meetings. More
5 specifically, Duke Energy Ohio made subject matter experts available at
6 individual locations to address topics such as safety, engineering, route selection,
7 real estate, right-of-way, natural gas operations, and constructions. Additional
8 consultants in the areas of route and design were also present. GIS mapping
9 stations were also available to allow individuals to locate their property relative to
10 the routes then under consideration. Through this format, guests could identify
11 those issues of greatest importance to them and engage with Company
12 representatives most knowledgeable about those issues. Additionally, comment
13 cards and questionnaires were available in the event a guest preferred to submit a
14 written comment or question.

15 Duke Energy Ohio reviewed each comment submitted. Relative to those
16 submitted during the first two public informational meetings, Duke Energy Ohio
17 engaged in further analyses that culminated in certain engineering adjustments
18 and route refinements.

1 **Q. DID THE COMPANY EMPLOY THE SAME FORMAT FOR THE**
2 **FOURTH PUBLIC INFORMATIONAL MEETING?**

3 A. No, we modified the format slightly. Although we did have subject matter experts
4 available at individual locations to engage with guests on the various topics I
5 mentioned previously, we also included an oral presentation. I provided an
6 overview of our system, discussed the need for the proposed pipeline, and
7 identified the additional measures that we committed to incorporating in the
8 construction, maintenance, and operation of the proposed pipeline. I also
9 responded to questions from those guests in attendance, both as part of the
10 presentation and after it concluded.

11 **Q. IN ADDITION TO THESE PUBLIC MEETINGS, HOW DID THE**
12 **COMPANY INTERACT WITH THE PUBLIC?**

13 A. As I previously mentioned, we used a variety of communication forms to engage
14 with our customers in respect of our proposed pipeline. Thus, in addition to the
15 meetings, we established a project webpage through which individuals could
16 obtain information about the project, including but not limited to, its need,
17 construction sequencing, safety, and public meetings. Through this website,
18 individuals could also submit questions or review the answers that had been
19 submitted to previously asked questions. Additionally, pertinent Company contact
20 information, which included both our dedicated project e-mail and hotline, was
21 provided in order to enable further inquiry or discussion.

22 Specific to our customers located along the routes under consideration,
23 Duke Energy Ohio sent letters, advising of the project, the potential for us to be

1 on their property to conduct necessary surveys and other assessments, the public
2 informational meetings, and how to become involved in the regulatory process
3 before the Board.

4 **Q. HOW DOES THE COMPANY INTEND TO INTERACT WITH THE**
5 **CUSTOMERS AND PROPERTY OWNERS ALONG OR ADJACENT TO**
6 **THE PIPELINE SUBSEQUENT TO AN AFFIRMATIVE BOARD**
7 **DECISION IN THIS PROCEEDING?**

8 A. Following a decision from the Board providing a certificate for the construction,
9 operation, and maintenance of the proposed pipeline, we will continue to engage
10 with our customers and the public. For those properties located along the final
11 route, we will be in regular contact with the property owners, whether for
12 purposes of finalizing easements, confirming parameters for construction, and
13 otherwise coordinating our work. Based upon my experience in installing major
14 pipelines, I understand that our property owners and customers will have
15 questions throughout the process and we are committed to continuing our
16 dialogue with them.

17 Additionally, we will continue to provide a project website, dedicated
18 project e-mail, and dedicated project hotline.

VI. ECONOMIC IMPACT

19 **Q. HAS DUKE ENERGY OHIO PREPARED AN ESTIMATE OF THE**
20 **CAPITAL AND INTANGIBLE COSTS OF THE PROPOSED PIPELINE,**
21 **RELATIVE TO BOTH THE PREFERRED ROUTE AND THE**
22 **ALTERNATE ROUTE?**

1 A. Yes. The table below reflects the estimates of intangible and capital costs. Note,
2 however, that these estimates do not include allowance for funds used during
3 construction or overhead. Furthermore, these estimates are based on designs that
4 will not be complete until after the Company has obtained the approval of the
5 Board for one of the routes.

Description	Preferred Route	Alternate Route
Land and Land Rights	\$26.8 million	\$19.6 million
Structures and Improvements	\$5.2 million	\$0.9 million
Pipe Equipment	\$87.2 million	\$82.4 million
Measuring and Regulating Equipment	\$8.7 million	\$8.7 million
ROW Clearing and Roads, Trails, or Other Access	\$0.3 million	\$0.1 million
TOTAL	\$128.2 million	\$111.7 million

6 **Q. AS THE OWNER OF THE PROPOSED PIPELINE, WILL DUKE**
7 **ENERGY OHIO HAVE A TAX OBLIGATION ASSOCIATED WITH THE**
8 **PIPELINE?**

9 A. Yes. Both the preferred route and the alternate route are located entirely within
10 Hamilton County and the Company will be obligated to pay property taxes on
11 utility facilities located in each county jurisdiction. Consequently, local school
12 districts, park districts, and fire departments will receive tax revenue from the
13 proposed pipeline. Duke Energy Ohio has estimated the annual property taxes
14 associated with the preferred route and the alternate route to be \$2.8 million and
15 \$2.2 million, respectively. Below are the estimated annual tax revenues for the
16 taxing authorities, based upon 2016 tax rates:

	Preferred Route	Alternate Route
Hamilton County	\$59,765	\$52,098
Sycamore Township	\$898,803	\$71,719
Columbia Township	\$125,405	\$0
Blue Ash	\$1,056,761	\$818,596
Cincinnati	\$345,448	\$477,412
Deer Park	\$40,439	\$0
Fairfax	\$131,618	\$0
Madeira	\$198,166	\$0
Montgomery	\$170,493	\$0
Sharonville	\$121,600	\$165,608
Silverton	\$172,736	\$0
Evendale	\$0	\$669,950
Golf Manor	\$0	\$26,516
Reading	\$0	\$612,436

VII. INTRODUCTION OF WITNESSES

- 1 **Q. PLEASE INTRODUCE THE OTHER WITNESSES WHO WILL TESTIFY**
- 2 **IN THIS PROCEEDING ON BEHALF OF DUKE ENERGY OHIO.**
- 3 **A. I identify below the other individuals who will present testimony on behalf of**
- 4 **Duke Energy Ohio, as well as the subject matters of their respective testimony:**

- 1 • Adam Long, General Manager, Gas Pipeline Operations
- 2 • Mr. Long will present testimony relating to system planning, meeting
- 3 design day requirements, the need to retire the Company's propane-air
- 4 peaking facilities, and engineering.
- 5 • James Nicholas, The Louis Berger Group, Inc., Director of Transmission
- 6 Siting
- 7 • Mr. Nicholas provides testimony relating to the proposed routes
- 8 discussed in the Application.
- 9 • Stephen Lane, Lead Environmental Specialist, Environmental Siting &
- 10 Licensing Support
- 11 • Mr. Lane testifies about environmental issues relating to the proposed
- 12 pipeline.
- 13 • Daniel Earhart, Burns & McDonnell, Section Manager, Environmental
- 14 Services Group
- 15 • Mr. Earhart testifies about environmental testing along the proposed
- 16 routes.
- 17 • Julianne Schucker, Jacobs Engineering Group, Senior Project Manager,
- 18 Global Environmental Solutions.
- 19 • Ms. Schucker testifies about environmental issues relating to a federal
- 20 superfund site located near the alternate route.

- 1 • Bruce Paskett, Structural Integrity Associates, Inc., Senior Associate, Chief
2 Regulatory Engineer
- 3 • Mr. Paskett testifies about safety as it relates to natural gas
4 infrastructure.

VIII. CONCLUSION

5 **Q. WHAT IS YOUR OPINION REGARDING THE COMPANY'S**
6 **APPLICATION IN THIS CASE?**

7 A. The Company has demonstrated that it meets all of the criteria set forth in Revised
8 Code Section 4906.10. Therefore, it is my opinion that the Board should grant a
9 certificate for the construction, operation, and maintenance of the proposed
10 pipeline, along either the preferred or the alternate route.

11 **Q. ARE ATTACHMENTS GJH-1 AND GJH-2 TRUE AND ACCURATE TO**
12 **THE BEST OF YOUR KNOWLEDGE?**

13 A. Yes.

14 **Q. WERE ATTACHMENTS GJH-1 AND GJH-2 PREPARED BY YOU OR**
15 **UNDER YOUR DIRECTION AND CONTROL?**

16 A. Yes.

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

18 A. Yes.

TABLE 6-1A

List of Public Officials Contacted Regarding the Project

Stakeholder / Entity	Person Contacted	Address
Representative Alicia Reece	State Representative, Alicia Reece	77 South High Street, 10FL, Columbus, OH 43215
Representative Denise Driehaus	State Representative, Denise Driehaus	77 South High Street, 10FL, Columbus, OH 43215
Representative. Johnathan Dever	State Representative, Johnathan Dever	77 South High Street, 10FL, Columbus, OH 43215
Representative Louis Terhar	State Representative, Louis Terhar	77 South High Street, 10FL, Columbus, OH 43215
Senator Bill Seitz	State Senator, Bill Seitz	1 Capitol Square, FL 1, Columbus, OH 43215
U.S. Representative Steve Chabot	District Director, Mike Cantwell	441 Vine Street, RM 3003, Cincinnati, OH 45202
U.S. Representative Rob Portman	District Director, Connie Laug	37 West Broad St., RM 300, Columbus, OH 43215
U.S. Representative Brad Wenstrup	District Director, Jeff Groenke	7954 Beechmont Ave., Suite 200 Cincinnati, OH 45255
Hamilton County Board of Commissioners	Commissioner, Chris Monzel	138 E. Court Street, Room 603 Cincinnati, OH 45202
Hamilton County Board of Commissioners	Commissioner, Dennis Deters	138 E. Court Street, Room 603 Cincinnati, OH 45202
Hamilton County Board of Commissioners	Commissioner, Todd Portune	138 E. Court Street, Room 603 Cincinnati, OH 45202
Hamilton County Municipal League	Stiney Vonderhar	10500 Reading Road, Evendale, OH, 45241
Pleasant Ridge Community Council	President, Bill Frost Vice President, Sarah Souder Pipeline Committee, Christine Schroder	P.O. Box 128705, Cincinnati, OH, 45212
Madisonville Community Council	President, Luke Brockmeier	P.O. Box 9514, Cincinnati, OH 45209; 5320 Stewart Ave, Cincinnati, OH 45227
City of Cincinnati	Mayor, John Cranley City Manager, Harry Black	801 Plum Street, Suite 150, Cincinnati, OH 45202
Village of Evendale	Mayor, Richard Finan City Administrator, David Elmer	10500 Reading Road, Evendale, OH 45241

TABLE 6-1A

List of Public Officials Contacted Regarding the Project

Stakeholder / Entity	Person Contacted	Address
City of Reading	Mayor, Robert (Bo) Bemmes Safety Director, Patrick Ross	1000 Market Street, Reading, OH 45215
Sycamore Township	Township Administrator, Greg Bickford President, Tom Weidman	8540 Kenwood Road, Cincinnati, OH 45236
City of Deer Park	Mayor, John Donnellon City Manager, Mike Berens	7777 Blue Ash Road, Deer Park, OH 45236
Silverton	Mayor, John A. Smith Village Administrator, Tom Carroll	6860 Plainfield Road, Silverton, OH 45236
Maderia	Mayor, Melisa Adrien City Manager, Thomas Moeller	7141 Miami Ave., Madeira, OH 45243
Fairfax	Mayor, Carson Shelton Village Administrator, Jennifer Kaminer	5903 Hawthorne Ave., Fairfax, OH 45227
Sharonville	Mayor, Kevin Hardman City Manager, Jim Lukas	10900 Reading Road, Cincinnati, OH 45241
Columbia Township	Township Administrator, C. Michael Lemon President, David Kubicki	5686 Kenwood Road, Cincinnati, OH 45227
Amberley Village	Mayor, Tom Muething Village Administrator, Scot Lahrmer	7149 Ridge Road, Cincinnati, OH 45237
Norwood	Mayor, Thomas Williams Safety Director, Joseph Geers	4645 Montgomery Road, Norwood, OH 45212
Roselawn	Robert Mosley, Sr.	P. O. Box 37087, Cincinnati, OH 45222
Bond Hill	Jeffrey Davis, Sr.	1237 California Avenue, Cincinnati, OH 45237
Blue Ash	Mayor, Lee Czerwonka City Manager, Dave Waltz Councilman, Marc Sirkin	4343 Cooper Road, Blue Ash, OH 45242

TABLE 6-1A

List of Public Officials Contacted Regarding the Project

Stakeholder / Entity	Person Contacted	Address
Golf Manor	Mayor - Ron Hirth Vice Mayor - Bob Harper	6450 Wiehe Road Golf Manor, OH 45237
Ohio Department of Transportation (ODOT)	Chief of Staff	District 8, 505 S. State Route 741, Lebanon, OH 45036
Port Authority of Cincinnati	Melissa Johnson	3 East Fourth St., Suite 300, Cincinnati, OH 45202
City of Montgomery	Wayne Davis	10101 Montgomery Road, Montgomery, OH 45242

Public Notice Information List

**Duke Energy Ohio Central Corridor Natural Gas Pipeline Project
Case No. 16-253-GA-BTX**

Copies of the actual siting application, including specific details of the location and construction, are available for public inspection at the following locations:

**Ohio Power Siting Board
Public Utilities Commission of Ohio**
180 East Broad Street
Columbus, Ohio 43215
614-466-3292

**Public Library of Cincinnati & Hamilton
County**
Ms. Kim Fender, Director
800 Vine Street
Cincinnati, Ohio 45202

The following local city and county government officials were served with a copy of the application as required by the Ohio Power Siting Board regulations:

Mayor Lee Czerwonka
City of Blue Ash
4343 Cooper Road
Blue Ash, Ohio 45242

Dan Johnson, Land/Zoning
City of Blue Ash
4343 Cooper Road
Blue Ash, Ohio 45242

Mayor John Cranley
City of Cincinnati
801 Plum Street
Cincinnati, Ohio 45202

Matthew Shad, Zoning Administrator
City of Cincinnati
801 Plum Street
Cincinnati, Ohio 45202

Luke Brockmeier
Community Council President
Cincinnati Neighborhood of Madisonville
P.O. Box 9514
Cincinnati, Ohio 45209

Robert Mosley, Sr.
Community Council President
Cincinnati Neighborhood of Roselawn
P.O. Box 37087
Cincinnati, Ohio 45222

David Kubicki, President
Columbia Township
5686 Kenwood Road
Cincinnati, Ohio 45227

C. Michael Lemon, City Manager
Columbia Township
5686 Kenwood Road
Cincinnati, Ohio 45227

Mayor John Donnellon
City of Deer Park
7777 Blue Ash Road
Cincinnati, Ohio 45236

Mike Berens, City Manager
City of Deer Park
7777 Blue Ash Road
Cincinnati, Ohio 45236

Mayor Richard Finan
Village of Evendale
10500 Reading Road
Cincinnati, Ohio 45241

Mayor Ron Hirth
Village of Golf Manor
6450 Wiehe Road
Cincinnati, Ohio 45237

Mayor Carson Shelton
Village of Fairfax
5703 Hawthorne Avenue
Cincinnati, Ohio 45227

Mayor Melisa Adrien
City of Madeira
7141 Miami
Madeira, Ohio 45243

Mayor Thomas Williams
City of Norwood
4645 Montgomery Road
Cincinnati, Ohio 45212

Mayor Robert Bemmes
City of Reading
1000 Market Street
Cincinnati, Ohio 45215

Mayor Kevin Harman
City of Sharonville
10900 Reading Road
Cincinnati, Ohio 45241

Mayor John Smith
City of Silverton
6860 Plainfield Road
Cincinnati, Ohio 45236

Tom Weidman, President
Sycamore Township
8540 Kenwood Road
Cincinnati, Ohio 45236

David Elmer, City Manager
Village of Evendale
10500 Reading Road
Cincinnati, Ohio 45241

Brian Gilligan, City Manager
Village of Golf Manor
6450 Wiehe Road
Cincinnati, Ohio 45237

John Hester, Land/Zoning
Village of Fairfax
5703 Hawthorne Avenue
Cincinnati, Ohio 45227

Thomas Moeller, City Manager
City of Madeira
7141 Miami
Madeira, Ohio 45243

Joseph Geers, City Manager
City of Norwood
4645 Montgomery Road
Cincinnati, Ohio 45212

Dan Brooks, Building Commissioner
City of Reading
1000 Market Street
Cincinnati, Ohio 45215

John Creech
Community Development Director
City of Sharonville
10900 Reading Road
Cincinnati, Ohio 45241

Tom Carroll, City Manager
City of Silverton
6860 Plainfield Road
Cincinnati, Ohio 45236

Harry L. Holbert, Jr., Zoning Administrator
Sycamore Township
8540 Kenwood Road
Cincinnati, Ohio 45236

Hamilton County Ohio Commissioners
Todd Portune, President
138 East Court Street, 603
Cincinnati, Ohio 45202

Hamilton County Ohio Commissioners
Chris Monzel
138 East Court Street, 603
Cincinnati, Ohio 45202

Environmental Services
Holly Christmann, Director
250 William Howard Taft, 1st Floor
Cincinnati, Ohio 45219

Hamilton County Ohio Commissioners
Denise Driehaus, Vice President
138 East Court Street, 603
Cincinnati, Ohio 45202

Hamilton County Development Services /
Zoning
Bryan Snyder, Administrator
138 East Court Street, 801
Cincinnati, Ohio 45202

Hamilton County Development Services /
Planning & Development
Todd Kinskey, Director
138 East Court Street, 801
Cincinnati, Ohio 45202

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Case No(s). 16-0253-GA-BTX

Summary: Testimony Direct Testimony of Gary J. Hebbeler on Behalf of Duke Energy Ohio, Inc. electronically filed by Carys Cochern on behalf of Duke Energy