

BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke)
Energy Ohio, Inc., for an Adjustment to) Case No. 16-0542-GA-RDR
Rider MGP Rates.)

In the Matter of the Application of Duke)
Energy Ohio, Inc., for Tariff Approval.) Case No. 16-0543-GA-ATA

DIRECT TESTIMONY OF

TODD L. BACHAND

ON BEHALF OF

DUKE ENERGY OHIO, INC.

March 31, 2016

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I. INTRODUCTION AND PURPOSE

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

2 A. My name is Todd L. Bachand, 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 a Lead
6 Environmental Specialist for the Remediation Group, which is part of
7 Environmental Services at Duke Energy Corporation (Duke Energy). DEBS
8 provides various administrative and other services to Duke Energy Ohio, Inc.,
9 (Duke Energy Ohio or Company) and other affiliated companies of Duke Energy.

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

12 A. I received my Bachelor of Science degree in Environmental Sciences from
13 Springfield College, located in Springfield, Massachusetts, on May 12, 1985. From
14 1985 to 1992, as an Environmental Scientist with Baystate Environmental
15 Consultants, Inc. (East Longmeadow, MA), I was responsible for conducting site
16 assessments, performing feasibility studies, and managing construction, dredging
17 and remediation projects. From 1992 to 1996, as the manager of Technical Services
18 for Nuclear Energy Services, Inc. (Danbury, CT), I was responsible for overseeing
19 and managing a wide variety of site assessments and remediation projects. I was
20 responsible for managing a team of environmental scientists and geologists primarily
21 working on sites throughout the east coast focusing on petroleum-impacted
22 properties. From 1996 to 1998, as the Mid-West Operations Manager for Nuclear

1 Energy Services, Inc., Integrated Environmental Services Division (Blue Ash, OH),
2 I was responsible for managing a team of environmental scientists, geologists, and
3 engineers. I was responsible for managing projects that dealt with environmental
4 assessments, real estate due diligence (Phase I Site Assessments), risk assessments,
5 underground storage tank remedial actions, and remedial actions relating to
6 chlorinated solvents, mercury and PCBs.

7 From 1998 to 2009, as the Vice President of NEES, LLC (West Chester,
8 OH), I managed a team of environmental professionals and I was responsible for
9 projects focusing on site assessments, property transactions, remediation projects,
10 Army Corps of Engineers permitting and compliance, and cultural resources
11 assessments. Projects that I personally managed focused on site assessments (Phase
12 I, Phase II, Phase III), remediation, risk analysis, environmental permitting,
13 environmental auditing and environmental compliance.

14 From 2009 to 2013, as the Director of Environment, FirstGroup America
15 (Cincinnati, OH), I had all environmental responsibility for the company, which
16 included the operating companies of Greyhound Bus, Greyhound Canada,
17 Americanos, First Student, First Canada, First Transit, and First Vehicle Services.
18 The occupational foot print included Mexico, Puerto Rico, the United States and
19 Canada. My responsibilities focused on ensuring compliance with all regulatory
20 programs from city, county, state and federal agencies in the United States and
21 city, provincial and the Ministry of Environment in Canada. Compliance
22 included over 3,000 storage tanks and issuance of annual permits for each
23 location (1,500+ locations). Additional responsibilities focused on real estate

1 holdings throughout North America and the due diligence aspect of acquisitions
2 and dispositions for both leased and owned properties. I was also responsible for
3 managing multiple Comprehensive Environmental Response, Compensation, and
4 Liability Act sites where the company had liabilities, as well as managing
5 multiple environmental remediation projects, focusing on petroleum, chlorinated
6 solvents and polychlorinated biphenyl (PCB) impacts to both soils and
7 groundwater. In addition, I was responsible for ensuring that all operating permits
8 were up to date and all federal, state and local Emergency Planning and
9 Community Right to Know Tier II reports were filed as required.

10 From June 2014 to the present, I have been a Lead Environmental
11 Specialist with Duke Energy in the Remediation Group. I am responsible for
12 managing all remediation projects within the states of Ohio, Kentucky, and
13 Indiana. I have extensive experience in site assessments and remediation that I
14 employ while managing the various projects in these states. Currently, I am
15 managing both former manufactured gas plant (MGP) sites for Duke Energy
16 Ohio. I also represent Duke Energy on the Indiana Energy Association – MGP
17 Remediation Work Group and I am a member of the MGP Consortium, which is a
18 group comprised of 28 utilities where lessons learned and best practices are
19 shared among utility project managers on the investigation and cleanup of former
20 MGP sites.

21 **Q. PLEASE SUMMARIZE YOUR RESPONSIBILITIES AS A LEAD**
22 **ENVIRONMENTAL SPECIALIST WITHIN THE REMEDIATION**
23 **GROUP.**

1 A. As the Lead Environmental Specialist in the Remediation Group, I provide project
2 management and technical oversight for Duke Energy's environmental liabilities
3 at power plants and other properties that any Duke Energy entity or predecessor
4 company either owned, operated, and/or sent material to and that is now subject to
5 remediation obligations.

6 My job responsibilities and those of other project managers in the
7 Remediation Group include interaction and coordination with many different
8 groups within and outside of Duke Energy, including: senior leadership; legal;
9 finance; business units such as gas operations and transmission, power delivery,
10 and generation; ratepayers and community groups; local, state, and federal
11 governmental or regulatory officials; and consultants, contractors, and
12 site/construction workers. We prepare bid documents that detail Duke Energy's
13 requirements and expectations for remedial work and we provide the technical
14 evaluation of the proposals received. During the execution of site work, we
15 actively review, comment on, and approve all plans, scope or design changes, and
16 final documents prepared by environmental consultants. We regularly visit sites
17 during active investigation and remediation activities in order to oversee work and
18 ensure that Duke Energy's expectations are being met.

19 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC**
20 **UTILITIES COMMISSION OF OHIO?**

21 A. I have provided direct testimony in applications for recovery of MGP costs
22 currently pending in related cases.

1 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

2 A. I am the project manager for the MGP investigation and remediation projects at
3 the East End and West End sites in Duke Energy Ohio's service territory. The
4 purpose of my testimony is to describe the environmental remediation activities
5 that occurred at the East End and West End site locations in Cincinnati, Ohio, in
6 the calendar year 2015. In so doing, my testimony will support the recovery of
7 such expenditures that are requested in Duke Energy Ohio's update to Rider
8 MGP, as authorized by the Public Utilities Commission of Ohio (Commission).

9 **Q. DID DUKE ENERGY OHIO CONDUCT REMEDIATION ACTIVITIES IN**
10 **2015 AT THE TWO FORMER MGP SITES IDENTIFIED IN ITS**
11 **NATURAL GAS RATE CASE, CASE NO. 12-1685, ET AL. (NATURAL**
12 **GAS RATE CASE)?**

13 A. Yes, the Company conducted remediation activities in 2015 at the two former
14 MGP sites that were identified in the Natural Gas Rate Case and related
15 testimony. Remediation activities are ongoing at these sites, as described later in
16 my testimony.

17 **Q. PLEASE DESCRIBE THE CORPORATE STRUCTURE AND**
18 **MANAGEMENT OVERSIGHT OF THESE TWO SITES.**

19 A. The remediation projects at these two sites are managed by Duke Energy
20 Environmental Services as part of the Environmental Health and Safety
21 Department in Regulated Utilities. Environmental Services is headed by a Vice
22 President who oversees Directors who are appointed to manage various
23 disciplines/media programs. Within the Remediation Group, I review project

1 scopes and activities with each consultant's individual project manager on a
2 minimum bi-weekly basis, which I then review with my management on a bi-
3 weekly basis. Information on the status and activities on the East End and West
4 End sites is periodically reviewed with higher levels of management and the
5 financial department. Known and anticipated activities, including cost estimates,
6 are reviewed with levels of senior management at least semi-annually and
7 whenever significant decisions are required on strategy or anticipated costs. Each
8 level of management has limited authority to approve activities and authorize the
9 expenditure of funds. For new purchase orders, approval also must be obtained
10 from Duke Energy's sourcing department. Over the course of the year, I meet
11 with a number of members of Duke Energy management to discuss the status of
12 the projects, seek input on certain decisions, and obtain approval of spending
13 requests, as necessary.

II. BACKGROUND AND HISTORY OF MGP SITES

14 **Q. THE RECORD IN THE NATURAL GAS RATE CASE DETAILS THE**
15 **HISTORY OF MANUFACTURED GAS, AS WELL AS THE TYPICAL**
16 **INVESTIGATION AND REMEDIATION OF FORMER MGP SITES. IS**
17 **THERE ADDITIONAL INFORMATION TO SUPPLEMENT THAT**
18 **PRIOR DETAIL?**

19 **A.** No. Information on the background of manufactured gas and its history in
20 southwest Ohio is described at length in the Commission's Opinion and Order in
21 the Natural Gas Rate Case (Commission's Order). Likewise, the Commission's
22 Order provides details of typical investigation and remediation activities and a

1 description of the impact of Ohio law and the Ohio Environmental Protection
2 Agency (Ohio EPA) clean-up programs on the management of the environmental
3 conditions at Duke Energy Ohio's MGP sites, especially Ohio EPA's Voluntary
4 Action Program (VAP). This previous testimony remains accurate today and, as
5 such, I will instead focus my testimony on activities occurring during the period
6 relevant to this proceeding – calendar year 2015.

7 **Q. PLEASE DESCRIBE THE ONGOING WORK AT EAST END AND WEST**
8 **END.**

9 All of the environmental work at the East End and West End sites continues to be
10 performed by environmental consulting firms experienced in MGP site
11 remediation and under the oversight of Ohio EPA VAP Certified Professionals
12 (CPs), whose role is to ensure activities are compliant with Ohio EPA's VAP
13 regulations. The Ohio EPA VAP CPs and environmental consultants hired to
14 perform activities at the two sites continue to work with me to ensure that the
15 work complies with the VAP and meets all applicable local, state, and federal
16 standards, as well as to ensure that the environmental conditions at the sites are
17 protective of human health and the environment.

III. REMEDIATION AT EAST END AND WEST END MGP SITES

18 **Q. PLEASE DESCRIBE THE COMPANY'S CURRENT GENERAL USE OF**
19 **THE EAST END AND WEST END MGP SITES.**

20 **A.** Both the East End and West End facilities continue to be used as plant in service
21 for utility service by Duke Energy Ohio. At East End, the facility continues to be

1 used as a synthetic natural gas peaking station and headquarters for field
2 operations.

3 At West End, Duke Energy's Transmission and Distribution Group
4 continues to work on the installation of the new substation required due to the
5 anticipated new Brent Spence Bridge (BSB) bridge. In addition, Duke Energy's
6 Transmission and Distribution Group continues to work on the construction of
7 new electrical equipment that will replace equipment impacted by the proposed
8 new BSB corridor project. Such work is ongoing.

9 **Q. PLEASE IDENTIFY THE ACTIVITIES CONDUCTED IN 2015 THAT**
10 **RELATE TO THE REMEDIATION OF ENVIRONMENTAL**
11 **CONDITIONS RESULTING FROM THE FORMER EAST END MGP.**

12 A. All work at the East End site is being conducted under the oversight of an Ohio
13 EPA VAP CP, employed by the firm of Haley & Aldrich, Inc. (Haley Aldrich).
14 As noted in the Commission's Order, the East End site was initially divided into
15 three smaller identified areas for environmental investigation and remediation
16 purposes that are referred to, for purposes of the VAP, as the "East Parcel,"
17 "Middle Parcel," and "West Parcel." Additional work occurred in an area
18 referred to as "the area West of the West Parcel," which has been impacted with
19 MGP residuals. Additional work occurred in an area referred to as "the area
20 West of the West Parcel" and the "Middle Parcel," both of which have been
21 impacted with MGP residuals.

22 Duke Energy issued a contract to Haley Aldrich Construction Services for
23 the remediation design and construction oversight for the Middle and area West of

1 the West Parcels in May of 2015.

2 The work performed by Haley Aldrich in 2015 included a Pre-Design
3 Investigation (PDI), which focused on investigating areas of the Middle and area
4 West of the West Parcels to refine the limits of the MGP contaminants and obtain
5 geotechnical data on site soil conditions that would be incorporated into the
6 engineered remedial design documents for the next phase of remediation. The PDI
7 also was used to confirm the presence of non-aqueous phase liquid (NAPL) and
8 dense non-aqueous phase liquid (DNAPL) in the Middle Parcel in areas that
9 housed former MGP structures. The PDI field work consisted of the installation
10 of twelve soil borings and seven test pits that were completed during October and
11 November 2015.

12 During the PDI field work, precautions were taken to ensure that the
13 critical infrastructure at the site was not damaged; Duke Energy contracted with
14 Terracon to conduct vibration monitoring of the critical infrastructure during the
15 PDI field work activities.

16 In addition, Duke Energy Ohio performed the next iteration of
17 groundwater sampling on all four parcels that contained groundwater wells. In
18 anticipation of the next phase of remedial activities at the Middle and area West
19 of the West Parcels, the groundwater sampling was reduced from quarterly events
20 to semi-annual events. This reduction will allow Duke Energy to continue to
21 monitoring groundwater trends and monitor the mobility of the NAPL and
22 DNAPL at the site while avoiding any analytical data gaps for the site. During
23 November 2015, Haley Aldrich gauged all monitoring wells and obtained NAPL

1 and DNAPL thickness measurements. Going forward, Haley Aldrich will
2 continue to gauge all monitoring wells on a monthly basis and will conduct
3 groundwater sampling on a semi-annual basis as discussed above.

4 **Q. PLEASE IDENTIFY THE ACTIVITIES CONDUCTED IN 2015 THAT**
5 **RELATE TO THE REMEDIATION OF ENVIRONMENTAL**
6 **CONDITIONS RESULTING FROM THE FORMER WEST END MGP**
7 **SITE.**

8 A. The work performed in 2015 included the installation of three additional
9 monitoring wells on the northern Front and Rose Parcel to further evaluate
10 groundwater impacts in this area of the site. In addition, the next iteration of
11 groundwater sampling at the West End MGP site was completed. The work
12 consisted of four quarterly groundwater sampling events of all wells and the
13 development of an annual technical memorandum documenting the results of the
14 samples.

15 The work conducted at the West End site was performed under the
16 oversight of an Ohio EPA VAP CP employed by Burns & McDonnell and
17 AECOM.

18 **Q. PLEASE DETAIL THE 2015 COSTS INCURRED AT BOTH THE EAST**
19 **END AND WEST END SITES FOR WHICH DUKE ENERGY IS**
20 **SEEKING RECOVERY THROUGH RIDER MGP.**

21 A. In 2015, Duke Energy Ohio incurred approximately \$1,061,056 in MGP costs at
22 the East End and West End sites. The recovery mechanism for the costs incurred
23 in 2015 is discussed in the Direct Testimony of Duke Energy Ohio witness Peggy

1 A. Laub. The categories of costs that are described at length in the Commission's
2 Order are applicable to the remediation activities that occurred in 2015. External
3 costs included: environmental consultants used for the investigation of the soil,
4 sediment, and groundwater impacts; environmental consultants used to perform
5 oversight during remedial actions; and analytical laboratories that analyzed soil,
6 sediment, and groundwater samples.

7 Internal costs included: expenses for Duke Energy employees working on
8 the project; oversight by the Duke Analytical Laboratory located in Huntersville,
9 North Carolina that performed audits of the analytical laboratories and performed
10 quality control and review of analytical data; oversight and coordination by Duke
11 Energy Power Delivery and Gas Operations personnel while working in close
12 proximity to sensitive electrical and/or gas utilities; survey support; and project
13 management oversight.

14 **Q. PLEASE DESCRIBE THE GENERAL PROCESS USED TO ENSURE THE**
15 **REASONABLENESS OF COSTS INCURRED TO REMEDIATE THE**
16 **EAST END AND WEST END SITES.**

17 A. As detailed in the Commission's Order, Duke Energy Ohio employs a number of
18 procedures to ensure that the scope of investigation and cleanup work is
19 appropriate and that the cost to perform that work is reasonable and prudent.
20 Duke Energy project managers work closely with Ohio EPA VAP CPs and
21 experienced environmental consultants to evaluate different options based on
22 various criteria, including compliance with environmental regulations, protection
23 of human health and the environment, best practices, feasibility, constructability,

1 safety, prior experience, and cost. These considerations are built into the
2 solicitation of bids and estimates through Duke Energy's "Request for Proposal"
3 process. Bids are screened first on their technical merit, and then evaluated for
4 cost. Scope modifications in the field due to new or changing field conditions
5 must be approved by Duke Energy project managers and may also require
6 approval from Duke Energy management and/or Duke Energy's finance
7 department depending on the extent of the modification and other circumstances.

8 **Q. BASED ON YOUR EXPERIENCE, DID DUKE ENERGY OHIO**
9 **REASONABLY AND PRUDENTLY INCUR APPROXIMATELY**
10 **\$1,061,056 IN COSTS IN 2015?**

11 **A.** Yes. The activities that occurred at the East End and West End MGP properties
12 related to the remediation of MGP impacts were conducted following the
13 procedures described in 2012 written testimony and 2013 oral testimony in the
14 Duke Energy Ohio Natural Gas Distribution Rate Case by Duke Energy Ohio
15 witness Jessica Bednarcik, activities that were deemed to be reasonable and
16 prudent by the Commission in its Order. Based on my experience with
17 remediating contaminated sites, including MGP sites like East End and West End,
18 the approximate \$1,061,056 represents reasonable and prudent costs for the work
19 that was performed in 2015.

20 **Q. PLEASE DISCUSS THE TIMING AND PLANNING RELATED TO THE**
21 **WORK THAT WAS PERFORMED IN 2015 AND FUTURE ACTIONS**
22 **PLANNED TO BE PERFORMED AT THE EAST END AND WEST END**
23 **SITES.**

1 A. These types of environmental projects are iterative in nature. That is, each step of
2 the process must be taken in the proper order, and it is not prudent to move to the
3 next step until the necessary information is gathered and decisions are made
4 concerning the results and next steps. It is customary and prudent to move
5 deliberately in order to avoid needless expense and also to avoid having to repeat
6 processes unnecessarily. Typically, therefore, once the areas where the former
7 MGP processes were located have been evaluated and remediated, potential off-
8 site impacts will then be evaluated to determine whether off-site investigation
9 and/or additional remediation will be required. Based upon my experience with
10 MGP site remediation projects and the conditions at the sites, it is often the case
11 that some amount of off-site investigations will be required to address the sites,
12 such as the initial sediment work that has been performed at the West End site.
13 Again, this demonstrates the iterative nature of these projects.

14 Each site is unique and the remedial actions must be sequenced in such a
15 way that remediation can move in a prudent manner without adversely impacting
16 other activities at the site, especially those that ensure the delivery of gas and
17 electricity to Duke Energy Ohio's customers. The actions conducted and planned
18 at the East End and West End sites are being sequenced to minimize disruptions
19 to operations and to facilitate known future construction activities at each site. I
20 agree with the testimony provided in 2012 and 2013 by Duke Energy Ohio
21 witness Jessica Bednarcik in regards to the fact that the uplands areas of
22 environmentally impacted sites are typically addressed first as the remediation of
23 the "source" material, or the impacts in the soil, and that such actions are expected

1 to result in the improvement of groundwater quality and of any down-gradient
2 plumes. Once the impacted soils are addressed, the groundwater is the next area
3 of focus, and then off-site impacts. This is the general sequence that Duke Energy
4 Ohio is implementing on both Ohio MGP sites, initially focusing on the soil and
5 groundwater, and then looking offsite.

6 By performing the remedial actions in a sequenced manner, Duke Energy
7 Ohio is not only addressing environmental impacts in a prudent, cost-effective
8 fashion, but is also performing the actions in a sequence that would allow gas and
9 electrical service to be uninterrupted and that takes into account future
10 construction activities.

11 At the East End site, the initial remedial activities were conducted in areas
12 where the Duke Energy Ohio Gas Department was planning to install new
13 vaporizers (West Parcel) and where a new gas line was anticipated (East Parcel);
14 the activities were also conducted on those two parcels since they were closest to
15 the anticipated residential developments, a significant change in the adjoining site
16 use. In 2015, the environmental work focused on continuation of groundwater
17 monitoring and performing the Pre-Design Investigation to define the limits of the
18 contamination at the Middle Parcel and the area West of the West Parcels. Plans
19 for 2016 include the development of the remedial design, which will be
20 implemented in the Middle Parcel and the area West of the West Parcel. The
21 Middle Parcel area will be remediated in a phased approach in order to avoid
22 disruption to the Duke Energy Gas Works site operations. The East End Gas
23 Works is a high-risk gas facility with sensitive underground infrastructure. As

1 such, extra security and safety precautions must be taken when remediating this
2 site to ensure the safety of Duke Energy Ohio's employees as well as the
3 surrounding community. Due to these safety and security restrictions, Duke
4 Energy Ohio can only perform certain remedial activities during specific times of
5 the year. During 2016, Phases 1A and 1B of the Middle Parcel are expected to be
6 remediated. Remediation of the area West of the West Parcel is expected to
7 commence during the fourth quarter of 2016 and extend into the first quarter of
8 2017.

9 At the West End site, actions completed in 2015 focused on the continued
10 assessment of the overall groundwater conditions at the site. Future work will
11 involve the assessment of the conditions beneath the eastern substation, which is
12 immediately to the west of the existing Brent Spence Bridge right-of-way and the
13 resulting remedial alternatives analysis. The timing of this work will be
14 dependent on the date of the final switch over from the old substation to the newly
15 installed substation, likely to take place during the summer of 2016. The
16 Company plans to utilize the information obtained from the site assessment to
17 develop the basis for design of the next iteration of remediation beneath the
18 eastern substation and the south east corner of the Front and Rose Parcel. In
19 addition, the Company will continue to monitor the site groundwater on a
20 quarterly basis.

21 **Q. PLEASE EXPLAIN WHAT DUKE ENERGY OHIO IS DOING TO**
22 **PURSUE OTHER MEANS OF FUNDING THE REMEDIATION AT EAST**
23 **END AND WEST END.**

1 A. Duke Energy Ohio witness Keith Bone will explain activities related to the
2 Company's efforts to seek insurance coverage for the costs incurred in
3 remediating the two MGP sites, consistent with the Commission's Order.

4 Additionally, Duke Energy Ohio continues to investigate and pursue other
5 potentially responsible parties that may be liable to contribute to the costs of
6 investigating and remediating the East End and West End sites. Duke Energy
7 Ohio continued its evaluation of the nature and extent of potential liability of
8 NiSource, Inc. (NiSource) an alleged successor to Columbia Gas & Electric,
9 related to the historic MGP operations at the two sites. Duke Energy Ohio and
10 NiSource, Inc. have exchanged information relating to Duke Energy Ohio's belief
11 that Columbia Gas/NiSource has legal responsibility for some of the costs
12 associated with the investigation and cleanup at the East End and West End sites.
13 The parties have continued to engage in discussions in 2015. NiSource has
14 asserted that it is not responsible for any costs of the investigation and cleanup at
15 the sites; however, Duke Energy anticipates further discussions between the
16 parties during 2016.

17 **CONCLUSION**

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

19 A. Yes.

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Case No(s). 16-0542-GA-RDR, 16-0543-GA-ATA

Summary: Testimony Direct Testimony of Todd Bachand on behalf of Duke Energy Ohio, Inc. electronically filed by Mrs. Adele M. Frisch on behalf of Duke Energy Ohio, Inc. and Spiller, Amy B and Watts, Elizabeth H