

BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO

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

SECOND SUPPLEMENTAL DIRECT TESTIMONY OF

GARY J. HEBBELER

ON BEHALF OF

DUKE ENERGY OHIO, INC.

_____	Management policies, practices, and organization
_____	Operating income
_____	Rate Base
_____	Allocations
_____	Rate of return
_____	Rates and tariffs
<u> X </u>	Other: Infrastructure Investment

April 22, 2013

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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 the Duke Energy Business Services LLC (DEBS) as General
6 Manager, Gas Field and Systems Operations, for Duke Energy Ohio, Inc., (Duke
7 Energy Ohio or Company) and Duke Energy Kentucky, Inc. (Duke Energy
8 Kentucky). DEBS provides various administrative and other services to Duke
9 Energy Ohio and other affiliated companies of Duke Energy Corporation (Duke
10 Energy).

11 **Q. ARE YOU THE SAME GARY J. HEBBELER WHO FILED DIRECT AND
12 SUPPLEMENTAL TESTIMONY IN THESE PROCEEDINGS?**

13 A. Yes.

14 **Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL DIRECT
15 TESTIMONY?**

16 A. My Second Supplemental Direct Testimony will provide and discuss information
17 to assist the Commission in understanding the nature of the Manufactured Gas
18 Plant (MGP) property that is undergoing environmental remediation and how it is
19 presently used for ongoing utility services. Based on discussions with legal
20 counsel, Duke Energy Ohio is responsible for environmental remediation as a
21 result of its historic and current ownership and operations of this property,
22 including when Duke Energy's predecessor companies owned and operated the

1 manufactured gas plants. However, the Staff of the Public Utilities Commission
2 of Ohio (Staff), has opted to review these sites for current use. The Company does
3 not agree that the current use of these sites is relevant for purposes of this
4 proceeding, because (1) environmental remediation at these sites is a current cost
5 of business due to the Company's ownership of these properties and liability for
6 historic operations, and (2) these MGP plants were used to serve gas utility
7 customers in the past. Nevertheless, this testimony is offered to provide an
8 accurate record of how these sites are presently used in the provision of either gas
9 or electric service to existing Duke Energy Ohio customers.

II. MGP SITES

10 **Q. PLEASE DESCRIBE THE MANUFACTURED GAS PLANT SITES.**

11 A. The MGP sites that are presently being environmentally remediated are located in
12 two areas in Cincinnati along the Ohio River. The Company has always referred
13 to these sites as the East End Gas Works and West End Plant. The land is broken
14 into zones or Identified Areas (IAs), unrelated to function, in order to aid in clean-
15 up under the Ohio Environmental Protection Agency (OEPA) Voluntary Action
16 Program (VAP). The Staff opted to analyze the sites for purposes of its review in
17 this case by using the same convention for delineating the sites. For clarity and
18 consistency, Duke Energy Ohio will continue to discuss these sites with reference
19 to the same geographic delineations as used by the Ohio EPA and Staff.
20 However, Duke Energy Ohio views the two sites as single operating facilities
21 used to provide utility services to customers.

1 The East End Gas Works site is east of the downtown Cincinnati area and
2 along the Ohio River, at the location of the former East End MGP plant. The East
3 End Gas Works site is comprised of three IAs, the Eastern Parcel, Middle Parcel
4 and Western Parcel, although other areas may be identified in the future. A
5 description of the remediation work at East End is provided in detail by Duke
6 Energy Ohio witness Jessica L. Bednarcik. I will describe this area with reference
7 to the Duke Energy Ohio utility use that is present at this location.

8 The West End Plant is directly adjacent to the Interstate 75 Bridge in the
9 downtown Cincinnati area and along the Ohio River at the location of the former
10 West End MGP plant. The West End Plant is comprised of multiple IAs, with
11 currently two principal phases, North of Mehring Way and South of Mehring
12 Way. A description of the remediation work at West End Plant is provided in
13 detail by Duke Energy Ohio witness Jessica L. Bednarcik. I will describe this
14 area with reference to the Duke Energy Ohio utility use that is present at this
15 location.

III. MGP SITE – EAST END

16 **Q. PLEASE DESCRIBE THE COMPANY FACILITIES ON THE EASTERN**
17 **PARCEL AND EXPLAIN WHY THE ENTIRE EASTERN PARCEL IS**
18 **USED AND USEFUL IN THE PROVISION OF GAS UTILITY SERVICE**
19 **TODAY.**

20 **A.** Currently, on the Eastern Parcel, there are three underground gas lines that
21 provide service to gas customers of Duke Energy Ohio. These gas mains traverse
22 the parcel and serve as feeds into the system and the propane injection facility that

1 is located on the Middle Parcel. One of the lines that traverse the parcel,
2 designated as Line E, splits into two 16-inch transmission lines at a manifold on
3 the south side of the parcel and crosses the Ohio River. These river lines are
4 designated AM02 and were installed in 1974.

5 The Staff attempted to recognize the working area needed to maintain the
6 pipeline corridors for the lines; AM02 (only on the property), E, D, and N, as
7 stated on Page 41 of the report; “The total 50-foot buffer (25 feet on each side)
8 allows access and room to turn heavy equipment that could be used to maintain or
9 repair the pipelines” (depicted on Attachment MGP-5). Duke Energy Ohio
10 disagrees with Staff’s recommendation. Instead, the entire parcel should be used.
11 Duke Energy Ohio’s historic easements were typically Blanket easements with no
12 width restrictions. Today, it is common that additional working space is utilized
13 for these types of pipelines which revert back to the landowner once construction
14 is completed. In certain terrain, if the pipeline requires replacement, additional
15 footage is again “rented” from the landowner during the construction period. In
16 this case Duke Energy Ohio owns the Eastern Parcel and easement issues will not
17 occur when the pipelines require replacement because Duke Energy Ohio already
18 paid for these rights by the purchasing of the entire Parcel.

19 The Staff did not recognize the necessity of the working area requirements
20 on the Eastern Parcel to install the existing river crossing with two 16-inch
21 transmission pipelines, nor the requirements for maintaining these pipelines.
22 While the Staff recognizes the need for ongoing maintenance of pipelines
23 traversing the land, it failed to consider certain work necessary when dealing with

1 pipelines that cross a major body of water. When significant maintenance is
2 necessary, the most probable solution is to replace these facilities. More than
3 likely, the two 16-inch lines would be replaced today using the horizontal
4 directional boring technique. Considering the terrain on either side, it is assumed
5 that the Eastern Parcel, located on the Ohio side, would be the site for the boring
6 operations and the Kentucky side would be the site used for the pipe stringing and
7 welding operations. Using this concept, once the bore was completed, the pipe
8 would be pulled from the Kentucky side to the Eastern Parcel site. The bore rig
9 operations, located on the Eastern Parcel, would consist of a large bore rig,
10 control trailer, large hydraulic pumps, mud separator, pit for bentonite overflow,
11 bore rod staging area, large lifting equipment to aid the operations and
12 miscellaneous material and equipment. The area required for such an operation
13 normally takes approximately 200' X 200'. In addition, Staff did not allow for
14 access and equipment necessary to maintain this boring operation above the 200'
15 x 200' area.

16 When considering the issue currently being questioned, one must consider
17 the history of the Eastern Parcel. In 1974, Lines AM02 (twin 16-inch pipelines),
18 were installed using the dredging method per Duke Energy Ohio's records. This
19 involved the excavation of the ditch lines for the pipelines using a dredge. More
20 germane to the current issue was that the river banks on either side of the river
21 were excavated with bulldozers and land ditching equipment. Based on my
22 understanding and experience, due to the terrain, the Kentucky side was more
23 than likely used for the pipe stringing and welding operations and the Ohio side

1 (the Eastern Parcel) was used for exiting the river. The Kentucky side is
2 generally flat and lies only a few feet above the water level while the Ohio side
3 (the Eastern Parcel) reflects a considerable distance from the water level to the
4 surface of the Eastern Parcel. It is logical that the property was being used to its
5 fullest extent to stockpile spoil being removed from the river crossing exit
6 excavation and a staging area for fabrication of the pipe on the Ohio side.
7 Experience shows that to accomplish a smooth transition along the pipe from the
8 dredged river bottom, observing an acceptable bending radius so as to not
9 overstress the pipe, and utilizing typical land excavating equipment of that era, the
10 excavation of the river bank involved cutting the existing river bank to the water's
11 edge and sloping this excavation northward into the Eastern Parcel. Onsite
12 observations of the pipeline markers and records indicate that it is approximately
13 40 feet between the AM02 pipelines entering the Eastern Parcel from the river.
14 This indicates that as this area was prepared for the pipelines, the necessary
15 excavation was a minimum of 40 feet wide. Allowing another 15 feet on the
16 outside of each pipeline, the total width of the bottom of the excavation now totals
17 70 feet. Due to the unstable nature of river banks, one must assume a slope of
18 excavation of 4:1. Therefore, from the water level, considering an assumed 30
19 feet difference in elevation, outward to the east and west another 120 feet was
20 excavated on either side of the pipelines. Therefore, one could easily see a
21 distance in excess of 310 feet affected by the excavation. For reference, on site
22 measurements in the field indicate that the Eastern Parcel is approximately 415
23 feet wide. An additional constraint is the eastern property line of the Eastern

1 Parcel that is approximately 115 feet from the easternmost Line AM02. In order
2 to avoid conflicts with adjacent property owners, any spoil would have been
3 carried northward on the Eastern Parcel, thus covering more of the Eastern Parcel
4 during construction operations.

5 In order to illustrate a complete picture of the use of the Eastern Parcel,
6 one must also consider the four 10-inch pipelines that were installed across the
7 river prior to 1974. Based upon industry history, this crossing was installed by
8 the dredging method also. Assuming the height of the river bank has not changed
9 drastically since the original lines were installed, the excavating issues were
10 certainly challenges at that time also. With the installation of four pipelines, the
11 necessary excavation was significantly more involved than for the two lines in
12 1974 requiring much more area for the storage of spoil on the Middle and Eastern
13 Parcel.

14 Finally, prior to remediation, this area was used by field operations as a
15 clean fill site. Soil, concrete and asphalt were discarded and then compacted to
16 provide a controlled clean fill area as issued under permit from the City of
17 Cincinnati. This spoil was a result of gas field activities involving excavation for
18 mains and services. The Eastern Parcel continued to be used and useful during
19 the entire operating history.

20 **Q. PLEASE DESCRIBE THE COMPANY FACILITIES ON THE MIDDLE**
21 **PARCEL.**

22 A. The Middle Parcel is comprised of natural gas operations that occupy the entire
23 Middle Parcel. The operations within the Middle Parcel are the propane peak

1 shaving plant, sensitive utility infrastructure, pipelines and field operations. All
2 three permanent buildings, which were constructed during the operations lifetime
3 of the MGP, are used in the process for making propane air and mixing it with
4 natural gas. There is a significant development of sensitive utility infrastructure
5 located in this Middle Parcel. In addition, there are three designated mainlines
6 that support the plant operations and a measurement station. Finally, an
7 operations center is mostly confined to the Middle Parcel. In addition to holding
8 the compressors for the propane plant, the building on the eastern side of the
9 Middle Parcel is a district office. The center of this parcel is used for parking
10 equipment and employees vehicles and the southern part of the parcel is used for
11 storing materials and equipment. The Staff agrees with the Company that all of
12 this Middle Parcel is used and useful in the current provision of gas service to
13 Duke Energy Ohio's gas customers.

14 **Q. PLEASE DESCRIBE THE COMPANY FACILITIES ON THE WESTERN**
15 **PARCEL AND EXPLAIN WHY THE ENTIRE WESTERN PARCEL IS**
16 **USED AND USEFUL IN THE PROVISION OF GAS UTILITY SERVICE**
17 **TODAY.**

18 A. On the Western Parcel, Duke Energy Ohio has constructed new vaporizers for its
19 propane facility, new entrance road and a new flaring station. A flaring station is
20 used to burn off propane that is released into the atmosphere when these facilities
21 require maintenance. When maintenance is performed, the propane pipes must be
22 purged and must be burned in order to avoid an unintentional hazard. The old

1 flaring operations took place on the south side of the western parcel. Such flaring
2 operations require use of the entire parcel as a buffer.

3 In addition, Staff neglected to recognize the limits of the sensitive utility
4 infrastructure on the Western Parcel and the use for the balance of the Western
5 Parcel as a necessary buffer for the sensitive utility infrastructure limits. This
6 buffer around the infrastructure itself is to avoid a breach due to any type of
7 operations that may pose a hazard. Work around such a structure is
8 understandably very sensitive and an adequate buffer zone is essential to maintain
9 safety.

10 Finally, part of the maintenance process requires the propane pumps to be
11 removed occasionally. As part of the procedure, municipal water is used to fill
12 the shaft to overcome the head pressure of the propane. Once maintenance is
13 complete, the pumps are reset and the water is pumped from the shaft and
14 dispersed on the western parcel.

15 The Staff observed that these facilities were not in operation at the time
16 that Staff was on site for inspection of these facilities and therefore did not
17 recognize the full extent of the operations. Staff incorrectly concludes that none
18 of the remediation expenses in this Parcel were incurred to operate, maintain or
19 repair natural gas plant that is used and useful, except for one small area.

20 **Q. PLEASE EXPLAIN WHY STAFF'S ANALYSIS IS INCORRECT AND**
21 **WHY THESE PARCELS ARE PRESENTLY USED AND USEFUL.**

22 A. Staff's analysis of these properties was necessarily limited by the Staff's
23 understanding at the time of the inspection. Much of what occurs at these

1 locations requires a deep knowledge of the gas distribution plant and some years
2 of experience with respect to maintenance and management of these types of
3 natural gas and propane gas facilities. With such understanding, it becomes clear
4 that the entire East End MGP site is presently used and useful in service to Duke
5 Energy Ohio gas customers today. Staff incorrectly assumed that the river
6 crossing would not require any additional work space outside the 50 foot corridor
7 allocated for the pipelines on the Eastern Parcel. This in fact is not the case. Any
8 operations requiring a river crossing would indeed need an additional work area to
9 perform the necessary operations to install the facility. In addition, Staff was not
10 aware of the Eastern Parcel's use for a clean fill area. This allowed Field
11 Operations to economically dispose of spoils from main and service excavations.

12 Staff also incorrectly assumed that all maintenance performed for the
13 propane peak shaving facility was confined to the Middle Parcel. In fact, the
14 flaring operation was performed and currently is performed on the Western Parcel
15 along with dispersing water from pulling the pumps. In addition, the Staff did not
16 account for the Sensitive Utility Infrastructure on the Western Parcel and the
17 buffer necessary to provide a "Safe Zone" to avoid any breach. Therefore the
18 entire Western Parcel is currently being used. The East End is a major component
19 in Duke Energy Ohio's gas supply portfolio that affects the integrity of our
20 system and service to the customers.

IV. MGP SITES - WEST END

1 **Q. PLEASE DESCRIBE DUKE ENERGY OHIO OPERATIONS AT THIS**
2 **LOCATION AND WHY THESE PARCELS ARE PRESENTLY USED**
3 **AND USEFUL.**

4 A. The West End Site that is the location of the former West End MGP is divided
5 into two main areas of interest, the North of Mehring Way area, and the South of
6 Mehring Way area. As noted by Company witnesses Jessica L. Bednarcik,
7 Andrew J. Middleton and Kevin Margolis, there is no question that this location
8 was the site of a manufactured gas plant that served Duke Energy Ohio customers
9 as a gas utility. And there is no question, nor is anyone questioning, the
10 Company's obligation to undertake environmental remediation of this site.
11 However, Staff has recommended to the Commission that the Company's costs
12 for remediation of these parcels of land should not be recovered from gas
13 ratepayers because the remediation expenses incurred were not related to the
14 operation, maintenance or repair of natural gas plant in service.

15 The Company does not agree that the present use of these parcels is
16 relevant for purposes of permitting recovery of costs for environmental
17 remediation that is necessitated by the former operation of the MGPs. Rather,
18 remediation expenses are a current cost of business due to the Company's current
19 ownership of this property and as a result of previous MGP utility service
20 provided from the property. However, this property is also presently used to
21 serve electric and gas customers and is therefore currently used and useful in the
22 provision of service to Duke Energy Ohio customers.

1 The North of Mehring Way parcel was used as a parking lot for Duke
2 Energy Ohio employees right up until it was necessary to vacate the property to
3 allow for the remediation. It is not possible to continue using the property while it
4 is undergoing remediation. When the remediation is complete, the Company
5 plans to continue use of this property. As was explained in Duke Energy Ohio
6 witness Jessica L. Bednarcik’s supplemental testimony, South of Mehring Way,
7 the Company currently owns and operates two 12-inch diameter gas transmission
8 pipelines that enter Ohio at the West End site. At the valve pit on the riverbank,
9 the two lines combine into one 20-inch pipeline. There is also a gas measurement
10 station at this location. This building also houses the Remote Terminal Units
11 (RTU) equipment, which is part of the Supervisory Control and Data Acquisition
12 (SCADA) system that monitors and controls the natural gas distribution system.
13 This line supplies approximately 20,000 customers in a peak hour. Duke Energy
14 Ohio is also planning to install a new gas transmission line at this property.

15 The Staff recognized the working area needed on the Eastern Parcel at
16 East End to maintain the pipeline corridors for the gas lines as stated on Page 41
17 of the report; “The total 50-foot buffer (25 feet on each side) allows access and
18 room to turn heavy equipment that could be used to maintain or repair the
19 pipelines” (depicted on Attachment MGP-5). The Staff did not recognize the
20 necessity of the working area requirements on the Parcel South of Mehring Way
21 to install the existing river crossing with two 12-inch transmission pipelines, nor
22 the requirements for maintaining these pipelines. While the Staff recognizes the
23 need for ongoing maintenance of pipelines traversing land, it failed to consider

1 certain work necessary when dealing with pipelines that cross a major body of
2 water. If significant maintenance is necessary, the most probable solution is to
3 replace this facility. The two 12-inch lines are planned to be replaced using the
4 horizontal directional boring technique with the I-75 construction. Considering
5 the terrain on either side, the Ohio side is the site for the boring operations and the
6 Kentucky side will be the site used for the pipe stringing and welding operations.
7 Using this concept, once the bore is completed, the pipe would be pulled from the
8 Kentucky side to the Ohio side. The bore rig operations, located on the West End
9 side, would consist of a large bore rig, control trailer, large hydraulic pumps, mud
10 separator, pit for bentonite overflow, bore rod staging area, large lifting
11 equipment to aid the operations and miscellaneous material and equipment. The
12 area required for such an operation normally takes approximately 200' X 200'. In
13 addition, Staff did not allow for access and equipment necessary to maintain this
14 boring operation above the 200' X 200' area.

15 When considering the use of the West End property, the history of these
16 sites is relevant. In 1947, the records indicate that Lines AM01 (twin 12-inch
17 pipelines) were installed using the dredging method. This involved the
18 excavation of the ditch lines for the pipelines using a dredge. Records indicate
19 similar conditions exist at this site as the Eastern Parcel of the East End site when
20 this work was done. However, due to the congestion of population on the
21 Kentucky side, the Ohio side was likely used for the pipe stringing and welding
22 operations as the Kentucky side. The Kentucky side is generally more flat and
23 while the Ohio side reflects a considerable distance from the water level to the

1 surface of the West End. Therefore, similar to the work that would be
2 undertaken at East End, repairing pipelines on the West End would require a
3 similarly large area to dredge and replace the pipeline in question.

4 Despite these significant gas facilities at the South of Mehring Way location,
5 Staff determined that the remediation work at this site occurred in the locations
6 where there are electric transmission and distribution facilities. Therefore, Staff
7 determined that the remediation costs for all of this location should be excluded.
8 Presumably Staff would agree that these costs could be recovered in an electric
9 distribution rider proceeding since the remediation occurred under facilities
10 presently serving electric customers. However, what is clear is that the site is
11 being used to serve both gas and electric customers and should be included as
12 used and useful for purposes of allowing recovery of remediation costs based
13 upon Staff's view of the relevant standard. West End is a major component in
14 Duke Energy Ohio's gas supply portfolio that affects the integrity of our system
15 and service to the customers. The West End site is entirely included as plant in
16 service for electric customers today.

V. CONCLUSION

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

19 **A. Yes.**