

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application The East)
Ohio Gas Company d/b/a Dominion East)
Ohio for Approval of an alternative Form) Case No. 15-0362-GA-ALT
of Regulation.)

**OBJECTIONS TO THE PUBLIC UTILITIES COMMISSION OF OHIO
STAFF'S REPORT OF INVESTIGATION
BY
THE OFFICE OF THE OHIO CONSUMERS' COUNSEL**

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I. INTRODUCTION

The Office of the Ohio Consumers’ Counsel (“OCC”)¹ submits its Objections regarding the Public Utilities Commission of Ohio Staff Report filed in this case on August 26, 2015. This case involves the Application filed by The East Ohio Gas Company (“Dominion” or “the Utility”), seeking to charge its residential customers approximately \$200 million a year by 2018, with additional three percent rate increases in spending during each of the remaining years of the program that runs through December 31, 2021. OCC files these objections of behalf of all 1.1 million residential gas customers of Dominion.² OCC asks the PUCO to reject Dominion’s Application because it is unjust and unreasonable and does not meet the standards set forth in R.C. 4929.

One of the policies of Ohio, as provided in R.C. 4929.02, is to promote the availability to consumers of adequate, reliable, and reasonably priced natural gas services. Dominion’s request to collect approximately \$200 million per year from

¹ OCC is the statewide representative for all of Dominion’s 1.1 million residential electric utility customers.

² See R.C. Chapter 4911 and Ohio Adm. Code 4901-1-11.

customers, plus three percent more in later years for inflation, is an unsubstantiated and excessive amount of money to ask customers to pay. Dominion's current program has successfully decreased the number of leaks on its pipeline system. Based on this success, there has been no showing of a need to expand and accelerate the program. The Utility provides no study or analysis to justify a need to increase and accelerate the PIR program.

OCC's objections identify recommendations of the Staff that are not just and reasonable. These objections meet the specificity requirement of Ohio Adm. Code 4901-1-28. Lack of an objection in this pleading to any aspect of the Staff Report does not preclude OCC from filing further pleadings, comments or expert testimony in this docket. Nor does it limit OCC's cross-examination or introduction of evidence or argument in regard to issues on which the PUCO Staff reverses, modifies or withdraws its position on any issue contained in the Staff Report.

OCC reserves the right to amend and/or to supplement its objections in the event that the PUCO Staff reverses, modifies or withdraws its position, at any time prior to the closing of the record, on any issue contained in the Staff Report.

OCC also reserves the right to file expert testimony, produce fact witnesses and introduce additional evidence in the event the PUCO were to schedule an evidentiary hearing.

OCC does not object to the PUCO Staff's recommendation for the extension of the Pipeline Infrastructure Replacement ("PIR") program for another five years, i.e., 2017-2021. OCC does not object to the Staff's recommendation that the previous authorization for a five-year re-extension, granted in August of 2011 and with a switch from fiscal year to calendar year, should include all PIR program investment through the

end of 2016. As OCC understands Staff's recommendation regarding savings, all savings will flow back to customers and there will be no sharing of Operation and Maintenance ("O&M") savings with the Utility. OCC has no objection to the Staff's recommendation that the O&M sharing mechanism be discontinued and that all O&M cost savings be passed along to customers via an adjustment to the PIR revenue requirement. However, OCC does object to the Staff's recommendation that Dominion be granted an increase in the cap on the monthly bill increment which funds the PIR program. This rate increase for customers is not needed or warranted and the pre-existing \$1.40 per month cap should be retained for the five-year extension of this program.

II. OBJECTIONS TO THE STAFF REPORT

Objection 1: The 25-year target for program completion is unnecessarily arbitrary

What is driving the Utility's request for this rate increase is the desire to complete this PIR program in 25 years. OCC does not agree with the Staff's and Dominion's insistence on maintaining a 25-year target for the completion of the program. The selection of a 25-year target should never have been construed as a strict deadline, and was never presented as such. Rather the 25-year target was a reasonable goal that would lead to a reasonable level of funding, i.e., replacement of approximately 4 percent per year (1/25). Given that the costs of achieving that goal have increased considerably (due, perhaps, in part from the market pressure of trying to achieve that goal in a labor market that was tight for other reasons as well), the goal itself deserves reconsideration. There is no evidence from the Staff or Dominion that would demonstrate that the 25-year goal is definitely preferred or would result in significant improvement in safety for customers,

over the longer term goal that would be implied if the scale of construction were reduced to fit the cost implied by the \$1.40 per month cap.

Dominion provides no study, analysis or a model that shows what might be projected to happen to leaks (and therefore incidents) on the Dominion system under various replacement scenarios, e.g., 4 percent, 3 percent, 5 percent. Even under a 3 percent replacement program, leaks in the 25th year would have been decreased substantially, and, assuming the prioritization of pipe replacement was mainly based on the “worst first” criterion (and somewhat based on street openings, etc.), the un-replaced pipe left in year 25 of this program should be some of the best pipe in the system, and waiting a few more years to replace the last 10-15 percent of the original inventory would not affect leak rates or alter the risk appreciably.

One of the original and successful gas infrastructure replacement programs was done by the Atlanta Gas Light Company.³ The original target for the Atlanta program was 10 years, but after various extra considerations, similar to those that changed the scope of the Dominion program in 2011, the program was extended to a 15-year program. That fifty percent change in the targeted length of the program did not undermine its ultimate effectiveness, because the worst pipe was replaced first.

OCC notes that the comparable Accelerated Mains Replacement Program (“AMRP”) for Duke Energy Ohio (“Duke”) (formerly Cincinnati Gas & Electric) was originally established as a ten-year program,⁴ yet the program eventually became a 15-

³ *In the Matter of Atlanta Gas Light Company*, GA PSC Docket 8516-U, Order (July 21, 1998).

⁴ *In the Matter of the Application of the Cincinnati Gas & Electric Company Now Known as Duke Energy Ohio for an Increase in Its Rates in Its Service Territory*, Case No. 01-1228-GA-AIR, Opinion and Order (May 30, 2002).

year program.⁵ The original goal of a 25-year program for Dominion was based on the Black and Veatch report⁶ which said that the average replacement rate in the nation was 4 percent (implying a 25-year program).⁷ The Black and Veatch report justified the difference between the Duke program and the proposed Dominion program. For convenience, OCC has included the relevant page (27) from the Black and Veatch report as Appendix A to these objections. Here are key observations, supported by direct quotes from the Black and Veatch report:

1. The 25-year program proposed by Dominion was based on the “shortest manageable time frame,” not that which might be optimal from a cost-effectiveness point of view. Apparently, the timeframe chosen was not truly ‘manageable,’ at least at first, as the costs have risen so dramatically.
2. Black and Veatch felt this was a “reasonable expectation and would bring Dominion in line with the current average rate of replacement.” Note how a judgment about reasonableness was used, and also a correspondence with a national average, not the fastest or slowest based upon other considerations.
3. A significant factor driving the entire program was to reduce the total number of leaks on the distribution and transmission systems. In fact,

⁵ *In the Matter of the Application of Duke Energy Ohio, Inc. for Adjustment to Rider AMRP Rates to Recover Costs Incurred in 2010*, Case No. 10-2788-GA-RDR, Order at 8 (May 4, 2011).

⁶ *In the Matter of the Application of the East Ohio Gas Company d/b/a Dominion East Ohio for Authority to Increase Rates for its Gas Distribution Service*, Case No. 07-829-GA-AIR, Exhibits, Vol. II, DEO Ex. 11, Black & Veatch Report at pages 4 – 47, (Aug. 22, 2008).

⁷ *Id.* at Exhibits, Vol. 2, Ex. 11, Black & Veatch Report at pages 1 “national average replacement rate of 3.7%” see also page 35, finding 6, (Aug. 22, 2008).

Black & Veatch recommended monitoring the leak rate during the 25-year period and potentially changing the time frame based on the results:

However, if during the planned 25 year replacement program Dominion observes that the rate of corrosion leaks per mile is increasing and becomes unmanageable, it may need to increase the rate of replacement of its aging higher risk mains.⁸

When the PIR was initially proposed, an increased rate of corrosion-related leaks per mile was a basis for accelerating the replacement of aging higher risk mains. Conversely, a decrease in the rate of corrosion-related leaks per mile should be a basis to maintain (or slow) the rate of replacement of its aging higher risk mains. Since 2007, Dominion's leak rate has responded quite favorably to the PIR declining from .87 leaks per mile in 2009, the first full year of the PIR program to .51 leaks per mile in 2014.⁹ With the leak rate declining, there is no reason to maintain the pace of accelerated replacement of the program which would require increased charges to customers.

4. Black and Veatch stated that the reason Dominion should not imitate Duke's 10-year timetable for replacement was that it was important to take into account the impact which the program might have on rates and resource availability:

While Duke Energy's 10-year replacement program may appear to be more aggressive than Dominion's 25 year plan, one must recognize that for the Company to replace its bare steel mains in 10 years, it would need to replace about 400 miles per year. This is over four times the amount of miles that Duke Energy replaced each year. It is not reasonable to plan for a replacement program of a higher magnitude than Dominion is instituting as long as its corrosion leak levels remain under control. As it is, the Company

⁸ Appendix A, page 1, paragraph 4.

⁹ Direct Testimony Michael Reed, page 25, lines 2 – 3.

is planning to replace approximately 162 miles per year which will be a resource challenge.¹⁰

Another point of comparison is the report that Black and Veatch did for Columbia Gas of Kentucky that was filed slightly later than the Dominion report, in mid-2009.¹¹ For convenience, OCC has included the excerpts from the Black and Veatch Kentucky report as Appendix B to these objections. Many sections of both reports are clearly a matter of cutting and pasting the verbiage from one report into the other, as is evident from a comparison of the excerpts we have included in Appendices A and B. Of particular note is that in the section on Conclusions, Black and Veatch present the same two-scenario depiction (Status Quo versus Proactive Replacement), only in this case, the example given (and the proposed program for Columbia Gas of Kentucky) is a 30-year program, not a 25-year program. Yet Black and Veatch make the same assertion about its being a “reasonable expectation” without addressing the five year difference, even though Dominion is a larger company with more customers and more miles of main:

Black & Veatch believes that this rate of replacement is a reasonable expectation and that it should provide a significant improvement in the safety and reliability of the Company’s distribution system.¹²

And when Black and Veatch make the same comparison to the “more aggressive” 10-year program adopted by Duke Energy in Ohio (and Kentucky), the consultant once again backs off of the aggressive program out of a concern that it could be unmanageable and would strain resources:

¹⁰ Appendix A, page 1, paragraph 5.

¹¹ *In The Matter of an Adjustment of Gas Rates of Columbia Gas of Kentucky, Inc.*, Kentucky Public Service Commission, Case No. 2009-00141, Volume 7, Direct testimony of Steven Vitale.

¹² *In the Matter of an Adjustment of Gas Rates of Columbia Gas of Kentucky, Inc.*, Case No. 2009-00141, Testimony at 70 (May 1, 2009), Appendix B, page 1, paragraph 4.

While Duke Energy is progressing under a 10-year bare steel and cast iron mains replacement program, if Columbia was to attempt to replace its higher risk mains in 10 years, it would mean that Columbia would need to increase its main replacements from its ten year average of 9.7 miles per year to 52 miles per year. Based on discussions with Columbia, this level of increase would likely severely strain Columbia's manpower, equipment, materials and financial resources.¹³

Clearly, these four observations based on direct quotations from the Black and Veatch reports demonstrate that the original logic for establishing the PIR program did not consider the 25-year timetable as the only and best goal, but rather a compromise based on what could reasonably be managed in order to achieve a steady improvement in Dominion's leak rates over time.

It should also be noted that the current goal of replacing approximately 150 miles per year is approximately 4.5-6 times greater than the rate at which Dominion was replacing aging pipeline before the PIR program¹⁴. Even if Dominion only replaced 130 miles per year in the next 5 years (a 30-year rate), it would be over 4 times the Utility's replacement rate prior to the PIR program.

Objection 2: The pipe construction market is likely to see a reversal in recent trend of cost increases.

The recent increase in cost is not likely to continue, so the need for the cap increase is not warranted. Dominion claims that a key reason for the cost increases it has experienced in the last few years is the increase in business activity among its contractors due to oil and gas exploration associated with shale deposits in Ohio and surrounding

¹³ Appendix B, page 2.

¹⁴ *In the Matter of the Application of the East Ohio Gas Company d/b/a Dominion East Ohio for Authority to Increase Rates for its Gas Distribution Service*, Case No. 07-829-GA-AIR, Exhibits, Vol. 2, DEO Ex. 11, Black & Veatch Report Exhibit 13A, indicates Dominion replaced 34 miles of targeted pipe in 2006 and 25 miles in 2007, and the presentation by Tim McNutt in Exhibit 13A, page 17 which noted that the total replacement for 2002-2006 which averages 42 miles including all replacement) (Aug. 22, 2008).

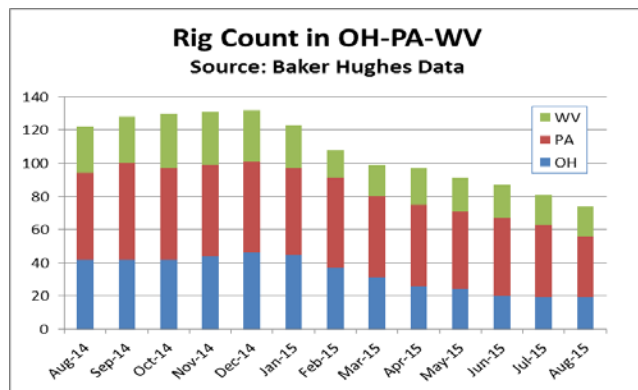
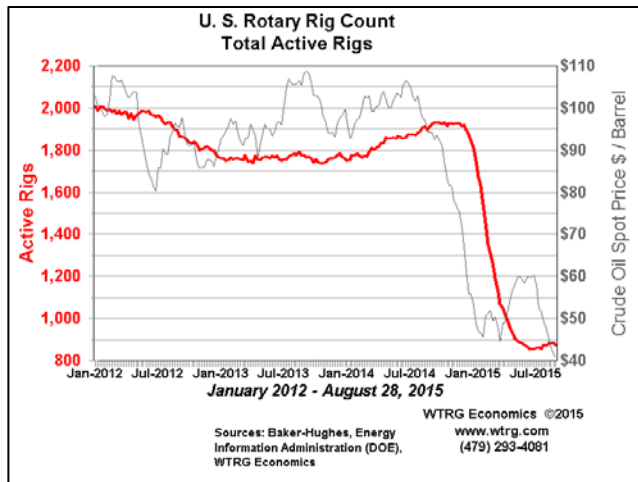
areas, e.g., using the fracking technology to exploit shale in the Marcellus formation.¹⁵ It may have been a major reason for the cost increases in the past, but there is evidence that this reason is likely to go away. Currently, the price of oil is closer to \$50 per barrel, rather than the over-\$100 per barrel that drove the recent boom in exploration through use of a technology that is too expensive to use at lower prices.

The pace of oil and gas exploration in the Midwest (and elsewhere) has definitely diminished, as reported in the August 19, 2015 Wall Street Journal¹⁶ and demonstrated in the graphs below¹⁷ showing the dramatic reduction in rig count in the US in the last eight months, and how this also resulted in an over-50 percent reduction in the rig count in OH and a 44 percent reduction in the rig count in the OH-PA-WV area. The chart for the total U.S. also shows the price of oil, and how the rig count directly reacts, with a lag of a few months, to the price of oil, and that even a rise of the price of oil to \$60 per barrel from \$40 per barrel was not a significant stimulus to the rig count. It would appear that it would take the return of near-\$100 per barrel oil pricing to return the rig count to 2012-2014 levels.

¹⁵ Direct Testimony of Michael Reed, page 5, line 24 through page 6, line 3. “The growth in shale development and other infrastructure programs also means that the contractors who do physical work are in much higher demand. Without an increase in investment, the pace of the program in terms of mileage of pipeline replaced will inevitable and continuously slow down.”

¹⁶ Wall Street Journal, “Energy Slowdown Hits One Town Hard”, August 19, 2015 about Waynesburg, PA, which cites a general slowdown through the area, viz., “The economic pain from lower oil and gas prices is spreading to small towns and businesses across Pennsylvania and parts of Ohio and West Virginia that had been riding a wave of prosperity from the natural-gas shale boom” <http://www.wsj.com/articles/energy-slowdown-hits-one-town-hard-1440008970>.

¹⁷ Data are from the Baker Hughes reports <http://phx.corporate-ir.net/phoenix.zhtml?c=79687&p=irol-reports&other> and <http://www.energyeconomist.com/a6257783p/exploration/rotaryrigweekly.html>.



A properly managed program should reap the benefits of such a lesser contested labor market. It could be possible for Dominion to replace at a greater than 4 percent rate within the existing cap of \$1.40 per month. If that were to happen, it would certainly be a better use of the customers' money to fund an increase in the jobs and economic activity from replacing leak-prone pipe, as opposed to paying above market labor costs due to what could be a temporary shortage of resources.

Dominion is fully aware that the scale of its program is a factor in driving up its costs. It is problematic to accelerate a program that is already facing cost pressures because it relies upon costly scarce resources that must be funded on the backs of Ohioans. At this time, the program should only be explicitly renewed for another five

years, at the level sustainable by the current \$1.40 cap, in order to provide some predictable volume that contractors can rely on. However, a solution to the problem caused by an accelerated program is not to accelerate it some more.

Objection 3: Such a drastic increase in costs raises questions about the Company's ability to manage the program costs.

The Utility's costs for the program have almost doubled since the beginning of the program.¹⁸ This is not surprising. Similar programs have suffered similar problems. A recent and very relevant example is the accelerated main replacement program ("AMRP") implemented by Peoples Gas Light & Coke of Chicago, Illinois. The significant increase in costs there was judged by the Illinois Attorney General and the Illinois Commerce Commission to be so alarming that they ordered a third-party audit be done by Liberty Consulting Group, which found that in that instance the utility company was deficient in its cost management, having allowed contractors too much control over the program, as company whistleblowers had reported. As a result, the utility fired the main contractor it was using for the program, Jacobs Engineering Group, and is in the process of procuring a new one.¹⁹

The PUCO must assure itself that Dominion is exercising sound cost management and if the Utility wants to expand the program then it must demonstrate that it is diligent in tracking and analyzing program costs. To that end, some of Dominion's responses to the Interrogatories and Requests for Production of Documents of the PUCO Staff and the

¹⁸ Direct Testimony of Michael Reed at page 9, lines 1 – 7 (original cost range of approximately \$75 to \$80 per foot and the Utility has experienced prices increasing from \$85 per foot in 2008 to \$150 per foot in 2014).

¹⁹ Crain's Chicago Business, "Fired! Peoples Gas Sacks Chief Pipe-Replacement Contractor as Cost Soars," July 27, 2015, <http://www.chicagobusiness.com/article/20150727/NEWS11/150729827/peoples-gas-fires-chief-pipe-replacement-contractor-as-cost-soars>; See also, of Liberty's Final Report on Phase One of An Investigation of Peoples Gas Light & Coke's AMRP, Executive Summary, Illinois Commerce Commission No. 22032146, <http://www.icc.illinois.gov/naturalgas/> (August 14, 2008).

OCC indicate a potentially inadequate method for monitoring, analyzing, and controlling costs. For example, Staff Data Request No. 9, and OCC Interrogatory No. 95, requests the following information:

From available records, can Dominion readily prepare a spreadsheet that lists the annual PIR mainline replacement projects each year including each project's project/work order number, completion/in-service date, location (municipality, township, unincorporated area of a county, etc.), pipe material (bare steel, cast iron, ineffectively coated steel, etc.) feet installed, feet retired, number of services replaced, and cost?²⁰

Dominion's response began with: "All of the requested information is not available in a single source from which a report could be generated." The response went on to say that Dominion would provide a "sample" of an existing report that contains "thousands of lines of data". Similarly, Dominion answered OCC's request with: (After an objection that the request was overly burdensome) "Dominion does not track all of the information requested on an ongoing basis." The response went on to provide some of the information requested, but notably the information provided did not include footage installed and replaced by type nor the municipality. While there are various ways of examining and managing costs of such a program, the PUCO Staff and the OCC requested the information on footages installed and replaced by type (material and size?) on a project by project basis, in order to match the cost on a project basis, and Dominion indicated it does not have such an analysis readily available.

Just as worrisome to us is Dominion's response to Staff question 2, "Of the various cost drivers described in the Application and Mike Reed's testimony, which ones

²⁰ OCC Interrogatory No. 95 at Attachment 1 and Staff Data Request 9 at Attachment 2.

have been the primary drivers behind the annual cost increases?” Dominion’s response was:

The specific factors discussed in testimony were: general inflation; environmental compliance; working with municipalities; and increased demand for contractors. The nature of many of these costs renders them *impractical to track* or rank with precision. These cost-drivers are experienced primarily through contractor bid prices, and as such are not itemized. Contractor costs have the highest impact in terms of overall spend. Of direct costs to Dominion, excluding contractor costs, Dominion would estimate that environmental-compliance costs are greatest, and the costs associated with permit issuance are the least cost.²¹

This response demonstrates that Dominion does not have a firm handle on what is driving the significant increase in unit costs, other than a list of possible explanations, and it appeared that even that list was not ordered with respect to the most significant to least significant until the Staff asked for such a ranking (see last sentence of Dominion’s response to Staff Data Request No. 2).

When this response is taken in its totality along with other partial or negative responses to interrogatories, and the explosion in costs remains not fully explained, it causes OCC to recommend a full audit of Dominion’s cost management process for the PIR program before any change is made to the rate caps. Otherwise, the PUCO is sending a signal that cost increases will simply be passed along without documented proof that the costs are being appropriately managed and increases are not a result of Utility mismanagement. In order to ensure utility vigilance in cost control, record keeping and sound decision making should be that if the cost increases are not proven, they should not be granted.

²¹ Dominion Response to Staff Data Request 2, Att. 2 (emphasis added).

III. CONCLUSION

Ohio law requires that the PUCO deny an alternative rate plan if it does not promote reasonably priced natural gas service to consumers. If Dominion receives approval and implements the increased PIR program, consumers could be exposed to costs up to \$200 million a year over the life of the program. An increase such as this would amount to an unreasonable price for natural gas service and a violation of R.C. 4929.02.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the Objections has been served via electronic transmission upon the following parties of record this 25th day of September, 2015.

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Appendix A – excerpt from the Black and Veatch report for DEO, page 27

Scenario 2 – Proactive

In this scenario, Dominion would replace its bare steel mains at a rate significantly greater than today, while remaining manageable beginning with the mains that are in the worst condition, as identified by Dominion management, using all of its decision making support tools.

Dominion's management has stated that it has determined the shortest manageable time frame to complete the necessary main replacements is 25 years. Under this scenario Dominion would strive to replace or retire five and a half times the amount it replaced in 2007⁵ or approximately 162 miles per year⁶. Black & Veatch believes that this rate of replacement is a reasonable expectation and would bring Dominion in line with the current nationwide average rate of replacement.

This proactive approach would provide a planned mechanism to replace or retire Dominion's entire aging higher risk pipe with mostly plastic, and in some instances, with cathodically protected coated steel pipe. In Black and Veatch's opinion, this is the most prudent scenario because it helps protect the safety of the Company's customers while avoiding numerous repairs of the piping before its eventual replacement.

However, if during the planned 25 year replacement program Dominion observes that the rate of corrosion leaks per mile is increasing and becomes unmanageable, it may need to increase the rate of replacement of its aging higher risk mains.

It should be noted that other companies in the same region as Dominion have also realized the need to replace their bare steel, cast and wrought iron mains. Duke Energy Ohio had presented its case for the replacement of its bare steel to the PUCO and requested rate relief and the authorization to institute an Accelerated Mains Replacement Program ("AMRP") tracker. The PUCO approved the program and the tracker. The request by Duke Energy was for the replacement of all the bare steel and cast iron main over a 10 year period. According to Gary Hebbeler's recent testimony on behalf of Duke Energy, in Case No. 07-589-GA-AIR, it had replaced 559 miles of cast iron and bare steel during the period 2001-2006. This equates to 93 miles per year compared to Dominion's plan to replace approximately 162 miles per year for the next 25 years. While Duke Energy's 10-year replacement program may appear to be more aggressive than Dominion's 25 year plan, one must recognize that for the Company to replace its bare steel mains in 10 years, it would need to replace about 400 miles per year. This is over four times the amount of miles that Duke Energy replaced each year. In our opinion it is not reasonable to plan for a replacement program of a higher magnitude than Dominion is instituting as long as its corrosion leak levels remain under control. As it is, the Company is planning to replace approximately 162 miles per year which will be a resource challenge. Duke Energy's replacement program, as testified by Mr. Hebbeler, has resulted in a significant reduction of leaks from 6,223 leaks in 2002 to 4,196 leaks in 2006 when the replacement program was only 48% complete. Black and Veatch would expect similar results for Dominion as its program is implemented.

⁵ 2007 replacements equaled 29 miles based on 25 miles of bare steel distribution main, 3 miles of cast iron and 1 mile of transmission bare steel.

⁶ Assumes 4,055 miles to be retired or replaced: (3,907 miles of bare steel, 112 miles cast and wrought iron and 1 mile of copper mains and 35 miles of bare steel transmission piping).

Appendix B – excerpt from the Black and Veatch report for Columbia Gas of Kentucky, pages 34-35

Scenario 2 - Proactive

In this scenario, Columbia would replace its unprotected bare steel mains at an annual rate significantly greater than today. It would begin with the mains that have been identified as potentially having the highest risk conditions, as identified by Columbia's management, using all of its decision making support tools.

For example if Columbia was to determine that the shortest manageable time frame to complete the necessary main replacements is 30 years, under this scenario Columbia would strive to replace 1.75 times the amount it replaced on average from 1998 through 2007 or approximately 16 miles of unprotected bare steel main per year.

When one includes the replacement of 25 miles of Columbia's cast iron mains over the same 30 year period, it increases the number of replacement miles to approximately 17 miles per year.

Black & Veatch believes that this rate of replacement is a reasonable expectation and that it should provide a significant improvement in the safety and reliability of the Company's distribution system.

This proactive approach would provide a planned mechanism to replace Columbia's aging, high risk pipe with mostly plastic, and in some instances, with cathodically protected coated steel pipe. In Black and Veatch's opinion, this is the most prudent scenario because it preserves the safety of the Company's system while avoiding numerous repairs of the piping before its eventual replacement.

However, if during its planned accelerated mains and services replacement program Columbia observes that the rate of corrosion leaks per mile is increasing and becomes unmanageable, it may need to increase the rate of replacement of its aging higher risk mains.

We have been advised by Columbia that it has begun to accelerate the replacement of its higher risk mains and services. We believe that this is an appropriate step towards enhancing the safety and reliability of their distribution system.

Accelerated Mains Replacement Activities by Other Utilities

It should also be noted that other companies in the same region as Columbia have also recognized the need to replace their bare steel mains. Such companies include: Duke Energy (Kentucky and Ohio utilities), Dominion East Ohio, Vectren Energy Delivery (Ohio) and Columbia Gas of Ohio. A number of other natural gas utilities have also concluded that such accelerated higher risk piping replacement programs are in the best interest of their customers and they have implemented accelerated replacement programs.

In the case of Duke Energy - Ohio, it had presented its case for the replacement of its bare steel to the PUCO and requested rate relief and the authorization to institute an

Accelerated Mains Replacement Program (“AMRP”) tracker. The PUCO approved the program and the tracker. The request by Duke Energy was for the replacement of all the bare steel and cast iron main over a 10 year period. According to Gary Hebbeler’s 2007 testimony on behalf of Duke Energy, in Case No. 07-589-GA-AIR, it has replaced 559 miles of cast iron and bare steel during the period 2001 -2006.

Duke Energy’s replacement program, as testified by Mr. Hebbeler, has resulted in a significant reduction of leaks repaired from 6,223 leaks in 2002 to 4,193 leaks in 2006 when the replacement program was 48% complete. Black and Veatch would expect similar results for Columbia as its unprotected bare steel and cast iron mains replacement program is implemented.

According to Duke Energy - Kentucky’s web site, the goal of its accelerated mains replacement program, approved by the Kentucky PSC in 2001 is to replace all 12“ and smaller cast iron and bare steel gas mains over a 10-year period. The web site also states that “As of January 1, 2005, there are approximately 111 miles of cast iron and bare steel gas mains in our Kentucky service territory that are scheduled to be replaced. Approximately 18 miles will be replaced each year, with the expected completion date in the year 2011.”

While Duke Energy is progressing under a 10-year bare steel and cast iron mains replacement program, if Columbia was to attempt to replace its higher risk mains in 10 years, it would mean that Columbia would need to increase its main replacements from its ten year average of 9.7 miles⁵ per year to 52 miles per year. Based on discussions with Columbia, this level of increase would likely severely strain Columbia’s manpower, equipment, materials and financial resources.

In Dominion East Ohio’s recent rate case, the Public Utility Commission of Ohio (PUCO) approved accelerated mains replacement cost tracker for its mains and service replacement program. Dominion plans to replace its bare steel and cast iron mains over a 25-year period.

In both the Vectren Energy Delivery and Columbia Gas of Ohio recent rate cases, settlement agreements that include the approval of accelerated mains replacement cost trackers, have recently been submitted to the PUCO and the utilities are awaiting the final PUCO Order. Vectren plans to replace its bare steel and cast iron mains over a 20-year period. Columbia Gas of Ohio plans to replace its bare steel and cast iron mains over a 25-year period.

In addition, the American Gas Association in its December 2007 report titled “Infrastructure Cost Recovery Mechanisms” reports that utilities in 11 states have implemented infrastructure cost recovery mechanisms. It also reports that requests for approval of such mechanisms are pending in another 3 states.

⁵ 1998 through 2007 average bare steel replacement rate of 9.4 miles per year plus 1998 through 2007 average cast iron replacement rate of 0.3 miles per year.

2008-2014 that includes cost-per-foot data for rural and urban projects.

This document was identified but not provided in DEO's supplemental discovery response provided on August 14, 2015, with the explanation that it included information that DEO considers confidential.

Responsible witness: Mike Reed.

Inter. No. 95. Please provide the following information for each of the PIR eligible distribution main replacement works closed to plant in CY 2014 as columns in an executable Excel spreadsheet with a row for each project:

- A. Project number;
- B. Work type, e.g., (e.g. bare steel main replacement, small diameter (<8") cast iron main replacement, main retirement, etc.);
- C. City/town work was predominately located;
- D. Project start date;
- E. Project completion date;
- F. Project Construction Estimate;
- G. Total project costs through 2014;
- H. Material type of main used as replacement (e.g., plastic);
- I. Diameter(s) of main replaced, in inches (Do not include text like 'inches' or "');
- J. Footage of main installed, in feet;
- K. Footage of main abandoned, in feet;

L. Number of services attached to the replaced segment(s) of main for this project; and

M. Number of services replaced in conjunction with this project

RESPONSE: DEO objects that this interrogatory is overbroad and unduly burdensome to answer. Subject to and without waiving this objection, DEO answers as follows: DEO does not track all of the information requested on an ongoing basis. Additionally, the categories of information that DEO does track are not entirely housed within a single system, and thus cannot be reported in the manner requested by OCC. DEO is submitting files that contain some of the information requested by OCC. The file “2014 Final PIR Capital Report.xlsx” contains the information specified in items A, B, E, and G. The file “2013 Effective Rate Calc.xlsx” identifies costs by tax district, which supports item C. The file “Mainline Costs and Footage Summary.xlsx” contains the information specified in item J. Information regarding item M is provided in the file “Service Line Replacements-Costs.xlsx.”

DEO has also identified a summary of major projects for 2008 to 2014 that provides a number of the items of information requested by OCC. This document was identified but not provided in DEO’s supplemental discovery response provided on August 14, 2015, with the explanation that it included information that DEO considers confidential.

Responsible witness: Mike Reed.

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1. For the mains, Staff utilized DEO responses to Staff data requests for the footage replaced each year under the PIR Program and the incremental costs for the mains reported on Schedule 2 to compute the cost per foot to install the mains for each year of the Program. Our calculations show a steady upward trend in the cost per foot from a low of \$56.79/ft. in fiscal year 7/08 – 6/09 to a high of \$266.41 for calendar year 2014.
 - A. Our estimate of annual cost per foot differs from the cost per foot reported on page 9 of Mike Reed's testimony where he reports \$85/ft. in 2008 and \$150/ft. "early in 2014." Can you explain the difference?

DEO Response: Staff's calculation was apparently based on the pipeline footage reported in response to DR 13 in Case No. 14-2134-GA-RDR and excluded Transmission mainline additions from the dollars used to calculate the cost per foot. Please see Attachment A for the basis of the calculation supporting cost per foot amounts submitted in testimony.

- B. What method did DEO use to arrive at the per foot cost estimates discussed in Mike's testimony?

DEO Response: Please see the response to 'A'.

- C. DEO's response to Staff DR-8 in last year's PIR case (Case No. 13-2320-GA-RDR) indicated that in 2013 the Company replaced a total of 692,450 feet of mains but the Company's response to DR-13 in this year's case (Case No. 14-2134-GA-RDR) indicates that 875,614 feet were replaced in 2013. Which is accurate?

DEO Response: The later figures are the most accurate. It takes a considerable amount of time after the end of each year to fully update DEO's GIS system, from which the replacement footage is obtained. Accordingly, when DEO provides footage information in response to a discovery request we provide the most current data available and include a footnote stating "GIS is not fully updated." When a response to the next year's replacement footage data request is provided, all information reported is updated. Because the GIS system was more fully updated for 2013 by the time of Case No. 14-2134-GA-RDR, the 2013 footage previously reported changed.

2. Of the various cost drivers described in the Application and Mike Reed's testimony, which ones have been the primary drivers behind the annual cost increases? Can you provide a generalized ranking of cost drivers from greatest to least in terms of percentage impact?

DEO Response: The specific factors discussed in testimony were: general inflation; environmental compliance; working with municipalities; and increased demand for contractors. The nature of many of these costs renders them impractical to track or rank with precision. These cost-drivers are experienced primarily through contractor bid prices, and as such are not itemized. Contractor costs have the highest impact in terms of overall spend. Of direct costs to DEO, excluding contractor costs, DEO would estimate that environmental-compliance costs are greatest, and the costs associated with permit issuance are the least cost.

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In its application and testimony, DEO attempted to convey that there are a variety of factors that have caused overall costs of the program to increase. Some of these increases were anticipated, and others were not, when the program was initially approved. Both inflation and the cost increases experienced to date will continue into the future and will continue to erode the amount of pipe DEO can replace without an increase in the level of investment permitted and associated increases in the rate increase caps.

3. In Mike Reed's response Question 19 in his testimony mentions that some municipalities have proven to be costlier and more complex than DEO anticipated. Which municipalities is Mr. Reed referring to?

DEO Response: Specifically, the City of Cleveland has proven to be the biggest challenge. Cleveland is the largest city in DEO's service territory and represents approximately 20% of the planned PIR work. Cleveland also requires the greatest involvement of internal resources in the planning, design and execution of PIR projects. Similarly, other large municipalities that have been significantly impacted by the PIR program (Akron, Canton, and Youngstown) have been more assertive in the requirements for the permitting of projects.

4. Please provide a list of municipalities and/or other governmental jurisdictions that have prevented DEO from utilizing directional boring and/or closing entire streets, thus preventing DEO from replacing double mains with single mains.

DEO Response: At this time, Akron, Canton, and Cleveland.

5. How specifically have the municipal or other governmental jurisdictions prevented DEO from utilizing directional boring and/or closing entire streets? Have they enforced pre-existing ordinances, enacted new ordinances, refused to issue necessary permits, other means? Please explain in detail.

DEO Response: The City of Cleveland's Code of Ordinances, Sections 503 (Street Openings & Maintenance) and 510 (Use of Public ROW by Service Providers), authorizes the Director "to adopt, promulgate and enforce Rules and Regulations relating to any matter or thing pertaining to the registration of Service Providers [including DEO] and the administration and enforcement of the provisions of this chapter [including permitting]." The Code then provides, "Rules and Regulations promulgated by the Director shall become effective upon publication in the *City Record*. Failure or refusal to comply with any Rules and Regulations promulgated by the Director shall be deemed a violation of this chapter."

An excerpt from the recent PIR 895 project, that is common language in all permits granted by the City of Cleveland, disallows directional boring as quoted below (see page 20 of the attached file): "No horizontal directional drilling is allowed in the City of Cleveland. Use an alternate."

A City of Akron ordinance requires that "open cut excavation" be used unless written approval is obtained based on a demonstration that "there are no existing utilities near the proposed location,

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and using the open cut method is nearly impossible." See City of Akron Regulations for Construction and Special Activities in Street Rights-of-Way, Section 1.6.

The City of Canton restricts directional boring in cases where the pipe size exceeds six inches, which in some cases makes the use of single mains in place of dual mains not feasible. See the example of a letter from the City of Canton Engineering Department stating "The City of Canton does not permit boring under hard surface of any size pipe in excess of 6 inches."

6. Please describe in detail DEO's past, current, and planned future efforts to work with municipal or other government entities towards allowing replacement of double mains with single mains. What assurances have been or can be given to the municipal or other governments that directional boring can be successfully employed in urban areas, especially considering that boring has been successfully used in urban areas such as Cincinnati, Columbus, Dayton, etc.?

DEO Response: In working through this issue with municipalities, it has been necessary for DEO to balance its own interests and those of cities—as explained in the testimony, too combative an approach could prove counterproductive. DEO recently finalized a memorandum of understanding with Cleveland. DEO focused on finding a solution in Cleveland first given its size and impact on the PIR program. DEO initially attempted to work directly with permitting officials to resolve the directional-drilling issues, and shifted its approach to higher levels of government after those efforts proved unsuccessful. From start to finish, the process of finalizing the MOU took approximately 12 months.

As it did in Cleveland, DEO has also attempted to work with local permitting officials in Akron and Canton to permit directional drilling. Once DEO gains sufficient experience with the Cleveland MOU arrangement, it may pursue such options with these municipalities at higher political levels.

Regarding the assurances referenced by Staff, DEO has provided them and otherwise attempted to respond to all concerns raised by cities. Such assurances were part of the process of negotiating the MOU with Cleveland.

7. Page 17 of Mike Reed's testimony discusses the inability to abandon pipelines in-place as a "potential cost pressure." Has the inability to abandon lines in-place been a cost driver for past installation cost increases?

DEO Response: No, the inability to abandon lines in place has not been a driver for cost increases to date. In most cases, DEO has been able to work with the local municipalities to abandon lines in place. The reference to this issue as a "potential cost pressure" in testimony is intended to point out that in addition to cost pressures DEO has encountered so far, any requirement in the future to remove old lines would further increase costs of the PIR program.

8. Can you explain in detail how development of the Utica shale has caused upward pressure on contractor costs for the PIR Program? Staff's understanding is that crew qualifications and resources are considerably different for drilling and hydraulically fracturing wells and working with

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large diameter high pressure steel pipe for gathering lines versus working with lower pressure smaller diameter plastic pipe and directional boring for distribution pipeline replacements.

DEO Response: The impact of the shale play on Dominion's contractor resources comes into play most often on projects involving the replacement of old steel with new steel pipe. These types of projects could include work in cities with municipal steam systems or larger diameter, high pressure steel applications. We have observed that some contractors who traditionally bid these types of projects in the past are now choosing to move their capacity to shale-related opportunities resulting in fewer bidders on our projects. As stated in Mike Reed's testimony in response to questions 48 and 49, DEO has experienced an increase in contractor bid prices as a result.

9. From available records, can DEO readily prepare a spreadsheet that lists the annual PIR mainline replacement projects each year including each project's project/work order number, completion/in-service date, location (municipality, township, unincorporated area of a county, etc.), pipe material (bare steel, cast iron, ineffectively coated steel, etc.) feet installed, feet retired, number of services replaced, and cost?

DEO Response: All of the requested information is not available in a single source from which a report could be generated. Such project details may be maintained in SAP, a data repository called "Business Warehouse," or in the GIS system. In order to prepare DEO's annual filings, the Design & Construction Project Support team prepares a detailed report that identifies each project by project number, completion/in-service date, general location, and costs by month, among other things. Each year's file comprises thousands of lines of data. Accordingly, it would be difficult to pull this information together into one spreadsheet. Nevertheless, in lieu of the spreadsheet identified by Staff, DEO will provide a sample of this report.

10. Can we arrange a date and location for Staff to review the contractor bids for PIR projects for the last several years? Staff annually reviews other companies' contractor bidding process and the bids received, primarily because affiliated companies submit bids in those companies' infrastructure replacement programs. Based on this experience, we are aware that contractor bids can be sensitive. As a result, we prefer to review contractor bids at the companies rather than requesting the documents and having the sensitive material potentially becoming public records.

DEO Response: Yes, we can arrange a date for a review of contractor bids on-site at our Springside location in Akron, OH. Due to the large amount of bid data, it would be helpful to determine if there are specific projects to be reviewed, year, area, type, etc. In that way, we would be better prepared to have the data readily available for review.

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Case No(s). 15-0362-GA-ALT

Summary: Objection Objections to the Public Utilities Commission of Ohio Staff's Report of Investigation by the Office of the Ohio Consumers' Counsel electronically filed by Patti Mallarnee on behalf of Bair, Jodi Ms.