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July 17, 2012

Barcy McNeal  
Secretary, Docketing Division  
Public Utilities Commission of Ohio  
180 East Broad Street  
Columbus, Ohio 43215

**RE: Case No. 12-1423-GA-RDR**

Dear Secretary McNeal:

In the process of responding to Staff Data Requests in the above case, Vectren Energy Delivery of Ohio, Inc. ("VEDO") discovered that an out-of-period work order was inadvertently included in Attachment A of the Application, the Testimony of James M. Francis and Exhibits 1 and 2 attached thereto. Accordingly, VEDO hereby submits the Amended Attachment A (Testimony and Exhibits of James M. Francis) to its Application in this case.

Thank you for your kind attention to this matter.

Very truly yours,

/s/ Gretchen J. Hummel  
Gretchen J. Hummel

**Attorney for Vectren Energy Delivery of  
Ohio, Inc.**

cc: Parties of Record

Enclosures

GJH:dr

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**BEFORE  
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of	)	
Vectren Energy Delivery of Ohio, Inc.	)	Case No. 12-1423-GA-RDR
for Authority to Adjust its Distribution	)	
Replacement Rider Charges.	)	

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**AMENDED ATTACHMENT A  
TO APPLICATION**

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**July 17, 2012**

**Attorneys for Vectren Energy Delivery  
of Ohio, I**

**BEFORE  
THE PUBLIC UTILITIES COMMISSION OF OHIO**

**DIRECT TESTIMONY  
OF  
JAMES M. FRANCIS  
DIRECTOR OF ENGINEERING AND ASSET MANAGEMENT**

**ON BEHALF OF  
VECTREN ENERGY DELIVERY OF OHIO, INC.**

**CASE NO. 12-1423-GA-RDR**

**April 30, 2012**

**DIRECT TESTIMONY OF JAMES M. FRANCIS**

**INTRODUCTION**

1   **Q.    Please state your name, business address and occupation.**

2    A.    My name is James M. Francis. My address is One Vectren Square,  
3            Evansville, Indiana, and I am Director of Engineering & Asset  
4            Management for Vectren Utility Holdings, Inc. ("VUHI"), the immediate  
5            parent company of Vectren Energy Delivery of Ohio, Inc. ("VEDO" or "the  
6            Company").

7   **Q.    What are your duties in your present position?**

8    A.    I have responsibility for engineering and technical support for VEDO utility  
9            operations. My specific responsibilities include System Design and  
10           Planning, Corrosion Control, Project Engineering, Compliance, Standards,  
11           Asset Management, Pipeline Integrity Management, and Capital Planning  
12           and Management. Additionally, I am responsible for identifying and  
13           implementing many of VEDO's asset management programs.

14   **Q.    Please describe your work experience.**

15   A.    I have been employed by VEDO since April 8, 2004 as the Director of  
16           Technical Services. My title has subsequently been changed to Director  
17           of Engineering & Asset Management. Prior to my current position, I have  
18           been employed with VEDO since the purchase of the gas assets of the  
19           Dayton Power & Light Company by Vectren Corporation in 2000.  
20           Immediately prior to my current position, I was the Regional Manager of

1 the Troy Operating Region with responsibility for field operations. I also  
2 held other positions at VEDO including Planning Manager and  
3 Measurement Supervisor. Prior to my employment with VEDO, in 1991, I  
4 became an employee of Dayton Power & Light serving as a Project  
5 Engineer, System Planner and Measurement Supervisor.

6 **Q. What is your educational background?**

7 A. I received a Bachelor of Science in mechanical engineering from the  
8 University of Dayton in 1993. I received a Masters in Business  
9 Administration from The Ohio State University in 2000.

10 **Q. Are you involved in any gas industry association activities?**

11 A. Yes. I am active in the American Gas Association's ("AGA") Operating  
12 Section. I am currently a member of the AGA's Distribution and  
13 Transmission Engineering Committee.

14 **Q. Have you previously testified before this Commission?**

15 A. Yes. I testified in VEDO's most recent general rate case, Case No. 07-  
16 1080-GA-AIR ("Rate Case"), in support of the need for recovery of certain  
17 costs under the Distribution Replacement Rider ("DRR") proposed in that  
18 proceeding. I also testified in VEDO's 2010 DRR proceeding, Case No.  
19 10-0595-GA-RDR and 2011 DRR proceeding, Case No. 11-2776-GA-  
20 RDR.

21 **Q. What is the purpose of your testimony in this proceeding?**

1 A. First, I will provide details on the progress of VEDO's accelerated bare  
2 steel and cast iron replacement program ("Replacement Program"). I will  
3 discuss the status of pipe replacement, the costs incurred and the benefits  
4 identified in 2011. I will discuss certain other issues, such as meter  
5 relocations and plastic pipe retirements, and how these are addressed  
6 within the Replacement Program. I will discuss the processes used to  
7 assess and award the construction work associated with the Replacement  
8 Program, and will provide the 2012 replacement plan.

9 The second portion of my testimony will discuss VEDO's riser replacement  
10 program ("Riser Program"). I will detail the status of replacements and  
11 costs associated with the Riser Program in 2011. I will also discuss how  
12 the Riser Program work was awarded in 2011.

13 The third portion of my testimony will discuss VEDO's experience with the  
14 change in service line ownership and responsibilities which took effect in  
15 2009.

16 The final portion of my testimony will discuss identified savings resulting  
17 from the Replacement Program as well as the additional costs incurred by  
18 VEDO due to its assumption of service line responsibility in 2009.

19 **Q. What Exhibits are you sponsoring in this proceeding?**

20 A. I am sponsoring the following exhibits:

- 21 • Exhibit No. JMF-1- 2011 VEDO BS/CI Replacement Program Progress
- 22 • Exhibit No. JMF-2- Plastic Main Retirement Causes

- 1 • Exhibit No. JMF-3- VEDO BS/CI 2012 Replacement Plan
- 2 • Exhibit No. JMF-4- VEDO Riser Replacement Program 2011 Costs
- 3 • Exhibit No. JMF-5- VEDO 2011 BS/CI Maintenance Expense
- 4 • Exhibit No. JMF-6-VEDO Incremental Service Line Responsibility
- 5 Capital Costs

6 **Q. How is your testimony organized?**

7 A. My testimony is organized in four sections:

- 8 I. Bare Steel and Cast Iron Replacement Program
- 9 II. Riser Replacement Program
- 10 III. Service Line Responsibility
- 11 IV. O&M Savings and Incremental Costs

12 **I. Bare Steel and Cast Iron Replacement Program**

13 **Q. Please provide a brief description of VEDO's Replacement Program.**

14 A. As of the end of 2010, VEDO had a total of 492 miles of bare steel and  
15 161 miles of cast iron main remaining in its system. In the Rate Case,  
16 VEDO proposed to replace its remaining bare steel and cast iron  
17 infrastructure over a twenty year period at a rate of approximately 35 miles  
18 per year. The Replacement Program, as approved by the Commission in  
19 the Rate Case, includes the replacement of both mains and service lines.  
20 Existing bare steel and cast iron mains and service lines are being retired  
21 as part of the Replacement Program.

1   **Q.     How much bare steel and cast iron infrastructure did VEDO retire in**  
2       **2011 as part of the Replacement Program?**

3   A.     In 2011, VEDO retired 29.4 miles of bare steel and 5.3 miles of cast iron  
4       mains under the Replacement Program.  Additionally, VEDO retired 3,633  
5       bare steel service lines, with 3,318 of those being replaced.

6   **Q.     How much did VEDO invest in the Replacement Program in 2011?**

7   A.     As identified by VEDO witness Janice M. Barrett, VEDO's Replacement  
8       Program investment for projects placed in service in 2011 was  
9       \$17,436,948.  Exhibit No. JMF-1 provides a detailed list of the projects  
10      placed in service under the Replacement Program in 2011, the costs of  
11      each project as of December 31, 2011, and the amount of pipe (main  
12      footage and number of service lines) retired and replaced.  For some  
13      projects placed in service in 2011, additional trailing charges (such as  
14      restoration costs) will be incurred in 2012.  These costs will be included in  
15      a future DRR filing.

16  **Q.     Did VEDO retire any plastic main as part of the Replacement**  
17  **Program in 2011?**

18  A.     Yes.  VEDO retired a total of 7,402 feet of plastic main within the  
19      replacement projects completed in 2011.  There were a number of  
20      reasons why plastic main segments were retired, which were discussed in  
21      my testimony in the Rate Case.  Some short segments of plastic main  
22      existed within the bare steel or cast iron systems.  It would have been  
23      more costly to try and salvage that main rather than replace it.  Also, there



1       existed sections of plastic main at the ends of some distribution systems  
2       being retired wherein those segments no longer served any customers;  
3       therefore, there was no reason to continue to maintain those segments at  
4       this time. Exhibit No. JMF-2 "Plastic Main Retirement Causes" provides a  
5       brief description of the cause of the plastic retirement for each applicable  
6       project.

7       **Q.     Did the Rate Case Stipulation contemplate the inclusion of plastic**  
8       **pipe replacement costs for recovery through the DRR?**

9       A.     Yes. The Rate Case Stipulation, Paragraph 10(a) requires that the annual  
10       Replacement Program construction plans are to be provided to the Rate  
11       Case parties on February 1 of each year and shall include, among other  
12       things, the "...investment in infrastructure replacement under the program  
13       (including service line replacement costs and the other cost components  
14       included in the Company's application)...." The Rate Case Application,  
15       Alt. Reg. Exhibit A, Page 4, discusses in detail the replacement of plastic  
16       pipe as a part of the Replacement Program. Additionally, the Rate Case  
17       Stipulation, Paragraph 10(c), requires that the annual application to  
18       establish the DRR rate "...will include the information described in  
19       Paragraph 10(a) above for the costs incurred during the previous calendar  
20       year," which, as already indicated, includes the cost components,  
21       including plastic pipe replacement, which were included in the Rate Case  
22       Application.

1    **Q.    Is there any other evidence that the replacement of plastic pipe was**  
2           **contemplated to be a part of the Replacement Program as proposed**  
3           **in the Rate Case Application?**

4    A.    Yes. The Direct Testimony of Scott E. Albertson in the Rate Case, Page  
5           4, in discussing the content of Rate Case Application, Alt. Reg. Exhibit A  
6           and the cost components thereof, reiterates that the replacement of plastic  
7           pipe was a part of the Replacement Program from its inception.

8    **Q.    Did VEDO move any meters outside as part of the Replacement**  
9           **Program?**

10   A.    Yes. VEDO moved 2,552 meters outside in 2011. Because the newly  
11           installed mains operate at a higher pressure (requiring the installation of a  
12           service regulator), the cost associated with moving the meters outside was  
13           less than if the meter remained inside and the necessary service regulator  
14           was installed outside. In addition to better utilization of VEDO's capital,  
15           moving the meters outside should improve operational efficiency  
16           associated with future meter order work and will eliminate the need for  
17           inside atmospheric corrosion inspections. VEDO has employed this meter  
18           move-out approach since the Replacement Program was first  
19           implemented.

20   **Q.    Does VEDO believe that the Replacement Program is achieving or**  
21           **will achieve the expected benefits?**

22   A.    Yes. VEDO expects to experience improved service reliability and safety  
23           through the reduction of leakage and the replacement of the mains and

1 service lines that contribute most to system leaks. Proactive replacement  
2 of this pipe, moving meters outside, and retiring the older assets will drive  
3 workforce efficiencies. The Company was able, in 2011, to achieve  
4 improved capital utilization by retiring more existing main infrastructure  
5 than it was necessary to replace. Customers and property owners will  
6 experience a reduction in the number and frequency of disturbances and  
7 inconveniences (such as leak repair, service interruptions, etc.) as the  
8 older sections of main are retired. VEDO has historically repaired  
9 approximately 1 leak per mile per year on the mains retired. Additionally,  
10 as quantified below, there are active leaks and meter orders that will be  
11 eliminated as a result of replacing the infrastructure. The elimination of  
12 active leaks will result in a relatively lower level of lost and unaccounted  
13 for gas, although it is impractical to quantify a specific reduction. Finally,  
14 VEDO expects long term benefits in terms of reduced impacts on the  
15 communities where public infrastructure improvements may occur after  
16 these projects are completed.

17 **Q. What operational benefits did VEDO achieve as a result of the**  
18 **Replacement Program in 2011?**

19 A. There are a number of operational benefits that VEDO has achieved to  
20 date as a result of the Replacement Program.

- 21 • The replacement of these assets has reduced the number of active  
22 leaks in VEDO's system, is expected to reduce the occurrence of  
23 future leaks and leak repair work, and will reduce interruptions,

1 inconveniences and disturbances to customers. Specifically, the  
2 replacement projects from 2011 have allowed VEDO to eliminate  
3 110 active leaks, of which 44 would have required a more  
4 immediate and less efficient repair.

- 5 • Over the past 7 years, the Company has experienced an average  
6 of 156 asset condition related meter orders on the types of assets  
7 that were replaced in 2011. VEDO will experience a reduction in  
8 the number of these meter orders (Outside Gas Leak, Gas  
9 Emergency, Water in Line, and No Gas orders) through the  
10 retirement of bare steel and cast iron infrastructure.

- 11 • VEDO moved 2,552 inside meters outside. This will eliminate the  
12 requirement for a separate atmospheric corrosion check.

- 13 • Certain system components that had been used to address issues  
14 associated with assets in poor condition have been eliminated,  
15 such as the 42 drips used to remove water from low pressure  
16 mains.

17 Ultimately, these types of improvements provide reliability and safety  
18 benefits to VEDO's customers or property owners that live in the vicinity of  
19 the replacement projects.

20 **Q. Did VEDO derive cost savings from the 2011 replacement projects?**

21 A. Yes. VEDO has detailed the reduction of specific work items, assets and  
22 the estimated reduction of historically experienced work quantities, all of  
23 which allowed VEDO to achieve maintenance cost savings attributable to

1 the Replacement Program (and specific to the assets that were retired) in  
2 2011. Quantification of the savings achieved in 2011 compared to the  
3 baseline amount of \$1,192,953 established in the Rate Case will be  
4 discussed later in my testimony.

5 **Q. Were the construction projects within the 2011 Replacement**  
6 **Program competitively bid?**

7 A. Yes.

8 **Q. How were the bid packages organized, bid and awarded?**

9 A. Based on the geographical location of the projects, VEDO divided the  
10 planned 2011 projects into ten (10) bid packages. Separate bid packages  
11 were prepared for the bare steel and cast iron replacement projects and  
12 the riser replacement work. All existing contractors could bid on any of the  
13 10 packages but were not required to bid on all packages. If a contractor  
14 had not performed a gas distribution replacement project for Vectren with  
15 the last 3 years, they were deemed a new contractor and were limited to  
16 bid on the two (2) designated entry level packages. Each bid package  
17 was independently evaluated.

18 Twelve (12) different construction contractors were invited to provide bids  
19 for the work. A pre-bid meeting was held with all of the contractors to  
20 provide direction and to answer questions with regard to the work to be  
21 performed and the bids to be submitted. Each contractor was provided

1 with copies of prints for all of the projects and given time to visit the project  
2 sites prior to submitting bids.

3 Bids were submitted based on unit pricing; that is, a fixed price for a given  
4 unit of work to be performed. VEDO used the unit prices and the  
5 estimated work units for each project to create comparative cost  
6 estimates. These comparative estimates were then summarized for each  
7 bid package. Each package was evaluated based on overall cost, and the  
8 contractor's capacity. If a contractor submitted bids on several projects,  
9 the contractor's capacity was evaluated to ensure the potential award did  
10 not exceed their capacity.

11 **Q. What is VEDO's replacement plan for 2012?**

12 A. VEDO's planned replacement projects for 2012 are identified in Exhibit  
13 No. JMF-3. VEDO plans, in 2012, to spend approximately \$18.6 Million  
14 under the Replacement Program, replacing approximately 33 miles of  
15 bare steel and cast iron main along with the bare steel service lines  
16 served from those mains. As was the case in 2011, VEDO reserves the  
17 right to modify the plan as necessary to accommodate additional or  
18 different, higher priority projects as circumstances may change throughout  
19 the year.

20 **II. Riser Program**

21 **Q. Please describe the Riser Program.**

1 A. As ordered by the PUCO, in 2007 VEDO began conducting an inventory  
2 of customer owned service risers in its service territory. VEDO completed  
3 its inventory of risers in 2008. VEDO began replacing the risers identified  
4 as “prone-to-fail” in 2009 and further refined the list of risers to be  
5 replaced. As of the end of 2010, VEDO had 14,709 remaining prone-to-  
6 fail risers to replace.

7 **Q. How many risers did VEDO replace in 2011?**

8 A. VEDO replaced the remaining 14,709 prone-to-fail risers in 2011. The  
9 cost to replace these risers was \$5,471,106 or approximately \$372 per  
10 riser. Exhibit No. JMF-4 provides a breakdown of the costs incurred under  
11 the Riser Program. VEDO has now replaced all identified prone-to-fail  
12 risers.

13 **Q. What is the total Riser Program cost after completion at the end of**  
14 **2011?**

15 A. The total Riser Program cost as of the end of 2011 was \$17,262,601,  
16 which consists of the 2009 Riser Program cost of \$5,451,132, the 2010  
17 Riser Program cost of \$6,340,363 and the 2011 Riser Program cost of  
18 \$5,471,106. This total estimated cost is less than the \$33 million  
19 projected spend identified during the Rate Case due to a reduction of the  
20 number of risers to be replaced and the Company’s use of alternative  
21 replacement methods, as described below.

22 **Q. What methods did VEDO use to replace risers in 2011?**

1 A. Where possible, VEDO used the Perfection Servi-Sert service head  
2 adaptor to replace the service riser head. Where the Servi-Sert was not  
3 able to be used, the entire riser was replaced.

4 **Q. Why was the average per unit cost of a riser replacement in 2011**  
5 **\$372 compared to \$337 in 2010?**

6 A. Many of the more challenging riser replacements were completed in 2011,  
7 which included the need to hand dig and squeeze off services as a result  
8 of inaccessible curb stops. Additionally, there were fewer Servi-Serts  
9 installed in 2011 than in 2010 based on varying manufactures as a result  
10 of the existing service risers. This required more risers to be replaced  
11 using a full riser replacement. Additionally, VEDO incurred an increase in  
12 material costs resulting from the replacement of 86% more 1 ¼" risers  
13 (which are more costly than a 1" riser) than in 2010.

14 **Q. Was the riser replacement work in 2011 competitively bid?**

15 A. Yes.

16 **Q. How were the bid packages organized, bid and awarded?**

17 A. The Riser Program bid packages were organized geographically into two  
18 (2) packages.

19 Twelve (12) different construction contractors were invited to provide bids  
20 for the riser work, of which six (6) provided bids. A pre-bid meeting was  
21 held with all of the contractors to answer questions with regard to the work



1 to be performed and the bid packages to be submitted. Each contractor  
2 was provided with a count of risers to be replaced by package.

3 Bids were submitted based on unit pricing for full replacements, service  
4 riser head replacements and any associated activities. VEDO used the  
5 unit prices to create comparative cost estimates for each package. Each  
6 package was evaluated independently, much like the Replacement  
7 Program, and awarded accordingly.

8 The two (2) bid packages were awarded to the lowest two bidders based  
9 on the comparative cost estimate. The same two (2) contractors  
10 performed the Riser Program work in both 2010 and 2011.

11 **Q. Was some of the riser replacement work completed by VEDO crews?**

12 A. Yes. In addition to the contracted crews, VEDO used internal crews to  
13 complete a number of replacements.

14 **Q. Is VEDO's Riser Replacement Program complete?**

15 A. Yes.

16 **III. Service Line Responsibility**

17 **Q. Are you able to assess how VEDO's transition to service line**  
18 **responsibility has progressed?**

19 A. VEDO continues to view the transfer of service line responsibility to the  
20 Company as a positive for both the Company and its customers. In  
21 general, VEDO's assumption of service line responsibility has been a

1 benefit to its customers. Customers no longer are required to schedule  
2 the services of a plumber to repair or replace their service line, minimizing  
3 inconvenience and out of pocket costs for customers. VEDO's response  
4 times to leak calls and its repair activities reduce the amount of time  
5 customers are out of service. The Company's ability to adjust to an ever  
6 changing schedule to meet the needs of customers has also been a  
7 benefit. Also, confusion over customer responsibility for the service line  
8 has been essentially eliminated because there is now a clear delineation  
9 of responsibility between the customer and VEDO. Because VEDO (and  
10 its customers) have a significant number of aged service line assets, the  
11 annual amount of service line replacements is significant. VEDO has  
12 responded to numerous leak calls, many on bare steel service lines that  
13 have required replacement. VEDO does expect that as the Replacement  
14 Program matures and as individual service lines are replaced, over time  
15 this leak call activity will be reduced, as was identified in the Replacement  
16 Program benefits.

17 **Q. Has VEDO experienced any incremental costs as a result of**  
18 **assuming service line responsibility?**

19 A. Yes. VEDO has had to repair a number of gas leaks on the portion of the  
20 buried service line and the above ground meter setting that was previously  
21 maintained by the customer. As a result of this change, VEDO has seen  
22 both an increase in capital replacements and operations and maintenance  
23 expenses to repair these leaks. Incremental capital replacement costs

1 related to service line responsibility are included in Witness Barrett's DRR  
2 revenue requirement. The incremental O&M expenses will be discussed  
3 later in my testimony.

4 **IV. Maintenance Savings and Incremental Costs**

5 **Q. Did VEDO achieve maintenance savings in 2011 compared to the**  
6 **baseline amount of \$1,192,953?**

7 A. Yes. VEDO calculated its maintenance expenses incurred in 2011 by the  
8 same method it used to calculate the baseline maintenance expense  
9 amount of \$1,192,953. The actual comparable maintenance expenses in  
10 2011 were \$870,301, resulting in a savings against the baseline of  
11 \$322,652. This amount is broken into expense reductions attributable to  
12 mains of \$350,190 and expense increases from service lines replaced,  
13 and now owned by VEDO, of \$27,538 for a net savings of \$322,652.  
14 Additionally, VEDO experienced an increase in maintenance expenses of  
15 \$86,335 for those service lines that are not bare steel. Exhibit No. JMF-5  
16 provides the actual 2011 maintenance expenses and a comparison  
17 against the baseline expense amount. Additionally, this exhibit provides a  
18 breakdown of the maintenance expenses between mains and services.

19 **Q. Are the maintenance savings fully attributable to the Replacement**  
20 **Program?**

21 A. No. While certainly the elimination of the bare steel and cast iron  
22 infrastructure would have driven some of the cost reductions, the change

1 in service line responsibilities also led to some of the savings. The reason  
2 for this is that VEDO completed a significant number of service line  
3 replacements that would have formerly been at the customer's expense.  
4 The resources that previously had been conducting more leak repairs  
5 instead completed service line replacements, which are capital  
6 expenditures. As such, the maintenance expenses identified in 2011 are  
7 not necessarily indicative of the ongoing level of O&M. Rather, they are  
8 indicative of the work VEDO actually performed in a single year (2011).  
9 As such, the actual maintenance savings as compared to the baseline will  
10 change year over year.

11 **Q. Has VEDO experienced any incremental capital investment, beyond**  
12 **the Replacement Program, as a result of assuming service line**  
13 **responsibility?**

14 A. Yes. VEDO has replaced a number of service lines in order to eliminate  
15 gas leaks on the portion of the buried service line and the above ground  
16 meter setting that was previously maintained by the customer. As a result  
17 of this change, VEDO has seen an increase in capital costs. In 2011,  
18 VEDO spent, on average, \$4,812 per service line replaced. The  
19 incremental cost of the curb-to-meter portion of the service line is  
20 approximately \$1,113 per service line replaced over that experienced  
21 during the baseline period of 2007. The incremental investment includes  
22 the cost for the incremental length of curb to meter service line and meter  
23 setting that was formerly installed and maintained by the customer. In

1           2011, VEDO replaced 1,354 service lines that were not associated with  
2           the formal Replacement Program. This equated to an incremental capital  
3           investment of \$1,507,002 for service line replacements as a result of the  
4           assumption of this responsibility for service lines. Exhibit No. JMF-6  
5           provides the calculation of the incremental investment.

6   **Q.    Does this conclude your testimony?**

7   A.    Yes.

AMENDED 7-13-2012

2011 VEDO BS/CI Replacement Program Progress  
Actual Install & Retirement

A					B					C					D					E					F					Mains <sup>2</sup>					Services <sup>2</sup>					Meter Move-Outs <sup>2</sup>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
Work Order Number					Completion Date					Group#					City					Utility Plant Additions <sup>(1)</sup>					Plastic Installed (Feet)					G					H					I					J=G+H+I					K					L					M					N																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

Notes:

<sup>1</sup> Utility plant additions do not include cost of removal or 2011 trailing charge activity associated with BS/CI groups placed in service prior to January 1, 2011, both of which will be included in the 2012 DRR filing.

<sup>2</sup> Quantities may reflect estimates as final as-built information has not been received for all work orders; final as-built quantities will be reflected in 2012 DRR filing.

2011 VEDO BS/CI Replacement Program  
Plastic Main Retirement Causes

AMENDED 7-13-2012

Work Order Number	Completion Date	Group#	City	Total PL Retired (Feet)	Plastic Retirement Causes
10046703052210	23-Dec-11	V-444	Washington CH	445	Installed 310' main in the alley and retired existing plastic main from front distribution due to local requirements for meter location. Also a segment of plastic main was between steel mains segments to be retired (higher cost to dig both ends and uprate). (directional bore the new main)
10046803052213	9-Jan-12	V-361	Dayton	250	Plastic main crossing was retired (higher cost to dig both ends and uprate). Also a segment of plastic was between steel mains segments to be retired (directional bore the new main).
10046803052212	9-Jan-12	V-358	Dayton	442	2 segments of plastic mains were between steel mains (higher cost to dig both ends and uprate). Also segment of plastic main was retired, not needed, no customer.
10046903052212	6-Jan-12	V-352	Miamisburg	535	Transferred services from existing 3" LPP to the MPS main, do not need the second main.
09046703052525	22-Dec-11	V-103	Washington CH	0	
09046703052523	21-Dec-11	V-102	Washington CH	0	
10046703052212	21-Dec-11	V-450	Washington CH	0	
09046952532	16-Sep-11	V-10-19	W Carrollton	158	Plastic main between steel main segments to be retired (higher cost to dig both ends and uprate). (directional bore the new main).
11046903052210	11-Jul-11	V-816	Kettering	0	
09048152529	09-Jun-11	V-09-32	Greenville	0	
09046852534	6-Jan-12	V-10-05	Dayton	53	Isolated plastic main segment was retired, not needed, no customer.
09046603052523	30-Sep-11	V-101	Yellow Springs	430	Isolated plastic main segment was retired, not needed, no customer.
09046952530	14-Sep-11	V-10-13	Oakwood	0	
09046852537	22-Dec-11	V-10-18	Dayton	0	
09046852536	06-Jan-12	V-10-20	Dayton	236	3 segments of plastic main were between steel mains (higher cost to dig both ends and uprate). Also segment of plastic main was retired, not needed, no customer.
09046852542	22-Dec-11	V-10-35	Dayton	94	Segment of plastic main was between steel main segments to be retired (higher cost to dig both ends and uprate). (directional bore the new main).
09046803052523	23-Sep-11	V-104	Dayton	0	
09046952533	14-Sep-11	V-10-41	Dayton	0	
09048103052523	28-Oct-11	V-106	Covington	130	Segment of plastic main was between steel main segments to be retired (higher cost to dig both ends and uprate). (directional bore the new main).
09048103052525	28-Oct-11	V-107	Covington	170	Segment of plastic main was between steel main segments to be retired. 1" and 11/4" plastic main segments upgraded to 2" plastic main.
09048203052523	25-Aug-11	V-108	Bellefontaine	25	Segment of plastic main was between steel main segments to be retired (higher cost to dig both ends and uprate). (directional bore the new main).
09048203052525	25-Aug-11	V-109	Bellefontaine	1,390	Retired 1390' of 3" plastic main due to need to upgrade to 6" MPP, no need for 2 mains on the same side of street.
09048103052526	14-Jul-11	V-110	Aracanum	165	
09046603052525	10-Aug-11	V-111	Yellow Springs	0	
09046603052526	12-Aug-11	V-112	New Carlisle	0	
09046603052527	05-Aug-11	V-113	Jamestown	0	
09046603052528	15-Aug-11	V-114	Fairborn	166	Segment of plastic main was between steel main segments to be retired (higher cost to dig both ends and uprate). (directional bore the new main).
10048103052212	23-Aug-11	V-124	Greenville	610	Segment of plastic main was between steel main segments to be retired. 600' of 1" and 11/4" LP plastic main segments upgraded to 2" plastic main.
10046603052210	13-Aug-11	V-137	Xenia	140	Segment of plastic main was between steel main segments to be retired (higher cost to dig both ends and uprate). (directional bore the new main).
09046803052525	23-Sep-11	V-211	Dayton	215	2 Segment of plastic main was between steel main segments to be retired (higher cost to dig both ends and uprate). (directional bore the new main).
10048103052213	28-Oct-11	V-447	Covington	137	Segments of plastic main was between steel main segments to be retired (higher cost to dig both ends and uprate). (directional bore the new main).
10048203052210	25-Aug-11	V-449	Bellefontaine	20	Retired isolated Plastic main, no customer.
10046603052212	05-Aug-11	V-451	Jamestown	831	3 segments of plastic main were between steel main segments to be retired (higher cost to dig both ends and uprate). (directional bore the new main).
10048203052212	25-Aug-11	V-454	Bellefontaine	375	3 segments of plastic main were between steel main segments to be retired (higher cost to dig both ends and uprate). (directional bore the new main).
10048103052210	30-Jun-11	V-455	Aracanum	385	3 segments of plastic main were between steel main segments to be retired (higher cost to dig both ends and uprate). 45' of 11/4" LPP main upgraded to 2" main.
<b>TOTAL</b>				<b>7,402</b>	



**VEDO BS / CI 2012 Replacement Program**  
Calendar Year 2012

Project Group #	Operating Center	City	Street	Estimated			Estimated Project Cost
				Install Footage	Retire Footage	Project Services	
V-441	Bellefontaine	BELLEFONTAINE	Green St., Park St.	3,010	4,481	84	\$460,750
V-481	Bellefontaine	BELLEFONTAINE	Lake Ave., Superior St., Erie St.	1,803	2,267	53	\$265,049
V-133	Centerville	DAYTON	Maple St., Clover St., Little St.	4,405	6,445	242	\$995,755
V-147	Centerville	DAYTON	Heaton Ave., Highland Ave.	7,585	7,650	266	\$996,497
V-291	Centerville	DAYTON	Coventry Rd. Cleaveland Ave.	4,645	3,955	151	\$546,812
V-453	Centerville	MIAMISBURG	Cole ave., Park Ave.	4,338	4,931	106	\$500,434
V-513	Centerville	DAYTON	Hessler St., Glenn Rock, Pusell Ave.	940	1,455	45	\$212,557
V-523	Centerville	DAYTON	Guncle Ave., Gebhart St.	2,740	2,854	75	\$401,285
V-524	Centerville	DAYTON	Angle St., George St.	5,165	5,990	165	\$786,744
V-530	Centerville	DAYTON	Wayne Ave., Epworth Ave.	6,810	6,851	239	\$961,211
V-744	Centerville	DAYTON	Brown st., K St.	1,114	2,124	17	\$171,128
V-810	Centerville	DAYTON	Paterson Rd.	3,777	3,955	83	\$578,458
V-10-42	Dayton West	DAYTON	Ray Ave., Troy St., Edmond St.,	5,760	9,420	192	\$965,129
V-115	Dayton West	DAYTON	Fith st., Riverview Ave., E Second St.	3,787	6,295	31	\$462,878
V-116	Dayton West	DAYTON	Hart St., Leo St., Leonard St.	5,385	4,940	252	\$996,972
V-117	Dayton West	DAYTON	First St., Douglas Ave., Webb St.	5,840	8,055	128	\$719,729
V-118	Dayton West	DAYTON	Findlay st., S. Jersey St., N McGee St.	9,455	10,775	195	\$998,945
V-123	Dayton West	EATON	Maple St., E. Edison St., E Mechanic St.	7,075	7,010	124	\$660,392
V-134	Dayton West	DAYTON	Bolton St., Richard St., Bantz Ct.	6,286	9,214	137	\$753,466
V-511	Dayton West	DAYTON	Pleasant St., Garland St., Harbine St.	4,394	5,560	184	\$845,015
V-528	Dayton West	DAYTON	Ryburn Ave., Bruce Ave.,	2,496	3,531	87	\$367,687
V-567	Dayton West	DAYTON	Orchard St., Mathison St., 1st St.	4,040	6,285	136	\$653,704
V-596	Dayton West	DAYTON	Edison St., Woodward St., Howell St.	2,858	4,686	64	\$365,658
V-440	Fairborn	CEDARVILLE	Elm st., Walnut St., North St.	3,125	4,950	53	\$342,016
V-452	Fairborn	XENIA	Main St., West St., Collier St.	8,990	12,450	125	\$760,743
V-612	Fairborn	JAMESTOWN	Maple St., Washington St., Xenia St.	3,731	4,448	64	\$288,482
V-120	Troy	NEW MADISON	Cherry St., Summit St., Wayne St.	5,649	6,733	115	\$613,051
V-460	Troy	SIDNEY	Mishigan Ave., Cary St., North St.	4,330	4,910	130	\$411,519
V-520	Troy	PIQUA	Summit St., Willard St., Sunset St.	2,108	3,109	77	\$469,132
V-522	Troy	PIQUA	Garfield St., Plum St.	2,892	2,872	74	\$412,008
V-623	Troy	SIDNEY	Miami St., South St., Thompson St.	4,421	4,956	158	\$685,612
<b>TOTAL</b>				<b>138,954</b>	<b>173,157</b>	<b>3,852</b>	<b>\$18,648,818</b>



**Vectren Energy Delivery of Ohio  
Riser Replacement Program  
Twelve Months Ended December 31, 2011**

<b>Expense Category</b>	<b>Expense</b>
Contract Labor	\$ 2,805,386
Materials	\$ 1,127,312
Overheads	\$ 1,066,605
Labor	\$ 408,776
Other Expenses	\$ 63,027
<b>Total</b>	<b>\$ 5,471,106</b>
<b># Risers</b>	<b>14,709</b>
<b>Costs per Riser</b>	<b>\$ 372</b>

**Notes:**

(1) Ties to Exhibit No. JMB-3a, Column P, Line 11.

VEDO 2011 Maintenance Expense - BS/CI & Service Line Ownership

Service O&M Expense Change

Service Call Expense Change						
A			B		C	
Meter Order Management						
Meter Orders		Baseline		2011		Change from Baseline
1	Outside Leaks	3467		3411		
2	Investigate Gas Emergency	937		782		
3	No Gas	1831		1651		
4	Water in Service	11		36		
5	Total	6246		5880		
6	% Allocated to BS/CI Facilities	48%		43.6%		
7	Orders applicable to BS/CI	2998	A5 * A6	2564	B5 * B6	
Maintenance Expenses		Baseline		2011		
8	Total Meter Orders	122091		114928		
9	Meter Order Mgmt Actuals	\$ 3,542,248		\$ 4,134,424		
10	Average Cost per Order	29.01	A9/A8	35.97	B9/B8	
11	Average cost per Asset Condition based Order	58.03	2 *A10	71.95	2 * B10	
* Leak Investigation order averages approximately 2x's longer than average meter order						
Maintenance Expenses Reduction Opportunity		Baseline (C1xC2)		2011		Change from Baseline
12	Orders Applicable to BS/CI x Average Order Cost per Asset Condition based Order	\$ 173,968	A7 * A11	\$ 184,452	B7 * B11	\$ (10,484) A12 - B12

Leak Repair & Management

Service Leaks Maintenance Expenses										
	Baseline		2011		Change from Baseline					
13 Service Leak Repair Actuals	\$ 145,655		\$ 249,044		\$ (103,389)	A13-B13				
14 % of Service BS/CI Leak Repairs	56%		39.6%							
15 Incremental Service O&M Expenses attributable to BS/CI	\$ 81,567	A13*A14	\$ 98,621	B13*B14	\$ (17,054)	A15-B15				
16 Incremental Service O&M Expenses attributable to All Other Asset Types	\$ 64,088	A13-A15	\$ 150,423	B13-B15	\$ (86,335)	A16-B16				
17 TOTAL BS/CI SERVICE MAINTENANCE EXPENSES	\$ 255,535	A12+A15	\$ 283,073	B12+B15	\$ (27,538)	A17-B17				

MAIN O&M Expense Change

Leak Repair & Management										
Main Leaks Maintenance Expenses										
	Baseline		2011		Change from Baseline					
18 Total Main Leak Repair Actuals	\$ 1,610,684		\$ 1,172,215							
19 Cost Associated with Soft Surface Repairs	\$ 644,274		\$ 736,151							
20 % of Soft Surface Repairs on BS/CI Main Leaks	39%		42%							
21 Cost Associated with Hard Surface Repairs	\$ 966,410		\$ 436,064							
22 % of Hard Surface Repairs on BS/CI Main Leaks	71%		64%							
23 Main O&M Expenses attributable to BS/CI	\$ 937,418	(A19*A20)+(A21*A22)	\$ 587,228	(B19*B20)+(B21*B22)	\$ 350,190	A23-B23				
24 Total O&M Maintenance Expenses (Main + Services)	\$ 1,192,953	A17+A23	\$ 870,301	B17+B23	\$ 322,652	A24-B24				

**VEDO Incremental Service Line Responsibility Capital Costs**

		A		B		C	
		Baseline		2011		Incremental over Baseline	
1	Service Line Replacements Costs	\$ 3,313,867		\$ 6,515,450			
2	Count of Service Lines Replaced	896		1,354			
3	Average Cost per Service Line Replaced	\$ 3,699	A1/A2	\$ 4,812	B1/B2	\$ 1,113	B3-A3

		Incremental Cost per Service		Service Replacements		Total Incremental Capital Cost	
7	Total Incremental Capital Investment for Service Line Responsibility	\$ 1,113	C3	1,354	B2	\$ 1,507,002	A7*B7

*Note: The service replacements included in this count were not replaced as part of a bare steel/cast iron replacement project. Replacements were performed as a result of individual leaks, relocations, public improvement projects or other system improvement projects.*

**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing *Amended Attachment A to Application* has been sent electronically, this 17<sup>th</sup> day of July, 2012 to the following parties of record.

/s/ Gretchen J. Hummel

Gretchen J. Hummel

Joseph P. Serio  
Assistant Consumers' Counsel  
Office of the Ohio Consumers' Counsel  
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**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**7/17/2012 10:32:58 AM**

**in**

**Case No(s). 12-1423-GA-RDR**

Summary: Application -Amended Attachment A to 4/30/12 Application electronically filed by Mrs. Debbie S Ryan on behalf of Vectren Energy Delivery of Ohio, Inc.