19

FILE

DEO EXHIBIT 10.0

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

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**
In the Matter of the Application of The East Ohio Gas Company d/b/a Dominion East Ohio for Approval of an Alternative Rate Plan for its Gas Distribution Service	**Case No. 07-830-GA-ALT**
In the Matter of the Application of The East Ohio Gas Company d/b/a Dominion East Ohio for Approval to Change Accounting Methods	**Case No. 07-831-GA-AAM**
In the Matter of the Application of The East Ohio Gas Company d/b/a Dominion East Ohio for Approval of Tariffs to Recover Certain Costs Associated with a Pipeline Infrastructure Replacement Program Through an Automatic Adjustment Clause, And for Certain Accounting Treatment	**Case No. 08-169-GA-ALT**
In the Matter of the Application of The East Ohio Gas Company d/b/a Dominion East Ohio for Approval of Tariffs to Recover Certain Costs Associated with Automated Meter Reading Deployment Through an Automatic Adjustment Clause, and for Certain Accounting Treatment	**Case No. 06-1453-GA-UNC**

DIRECT TESTIMONY OF
TIM C. MCNUTT
ON BEHALF OF
DOMINION EAST OHIO

___ Management policies, practice and organization

___ Operating income

___ Rate base

___ Allocations

___ Rate of return

___ Rates and tariffs

_X_ Other (PIR Rider)

TABLE OF CONTENTS

Page

Direct Testimony of

Tim C. McNutt

I. BACKGROUND AND QUALIFICATIONS

Q1. Please state your name, occupation and business address.

A1. My name is Tim McNutt. I am employed by The East Ohio Gas Company d/b/a Dominion East Ohio ("DEO" or "Company") as its Director, Gas Operations – Planning & Asset Utilization. My business address is 7015 Freedom Avenue NW, North Canton, Ohio 44720.

Q2. Please summarize your education.

A2. I graduated from the University of Akron in 1985 with a B.S. in Civil Engineering.

Q3. How long have you worked for DEO?

A3. Twenty-two years.

Q4. Please summarize your 22-year career with DEO.

A4. I have been engaged in all phases of engineering and operations for all phases of our gas system, from gathering to distribution to transmission to storage. After a two-year training program beginning in 1986, I began my engineering and operations career being responsible for transmission design, construction, and compliance activities. I then undertook responsibilities for corrosion compliance and design for East Ohio's transmission, storage, and gathering systems throughout Ohio. In 1992, I was transferred to a position in which I had supervisory responsibility for distribution design, construction, and corrosion compliance. This started a series of promotions to supervisory and management positions in which I became responsible for the

engineering, construction, corrosion and compliance functions first for distribution facilities in the Akron division of the company, then for distribution facilities in the Youngstown division, and then for the all gathering, storage and transmission facilities of East Ohio. Ultimately, in 1998, I became responsible for all design, construction, and corrosion functions for the transmission, distribution, gathering, and storage facilities of East Ohio.

After the acquisition of the company by Dominion, I was briefly assigned to a position involving operations, and then undertook management roles for delivery system planning and reliability, as well as centralized system facility records and mapping, and transmission pipeline integrity, among other functions.

In the course of my career, I have studied corrosion prevention practices in the industry and among DEO's peer companies. From 1989 through 1997, I was a member of the Eastern Ohio Corrosion Committee, serving as secretary, vice president, and president at different times during my tenure. The committee ensured that member companies were notified of new corrosion prevention activities undertaken by pipeline companies operating in the area that included the legacy East Ohio Gas and River Gas systems. Persons reporting to me had similar roles on other corrosion committees which, together with the Eastern Ohio Corrosion Committee, covered all areas of the state of Ohio.

Q5. Please summarize your responsibilities as Director, Gas Operations – Planning & Asset Utilization.

A5. My present duties include management of the centralized planning group, project prioritization, and capital allocation and management. In short, my job is to determine what the company needs to do to maintain a safe and reliable system.

Q6. What is the purpose of your testimony?

A6. My testimony supports the Application filed in Case No. 08-169-GA-ALT for approval of a pipeline-infrastructure-replacement rider ("PIR Application"). Specifically, I will first briefly summarize DEO's pipeline operation and maintenance practices. I then will discuss the materials historically used by DEO for gas mains on its system, and the current composition of DEO's system. Following that, I will address the specific operational issues that arise from certain types of mains; specifically, cast iron, wrought iron and bare steel mains. I will then summarize DEO's proposed Pipeline Infrastructure Replacement Program and the anticipated benefits that will arise from that program to customers, communities and the Company.

II. DEO'S PIPELINE OPERATION & MAINTENANCE PROCEDURES

Q7. *Please describe DEO's pipeline operation and maintenance procedures.*

A7. DEO pipeline operation and maintenance ("O&M") procedures have been developed to ensure full compliance with DOT pipeline safety requirements. To this end, the Company maintains written standard operating procedures, such as leak surveillance and reporting, leak classification, emergency response, pipeline patrol, reinstating pipelines and service lines, and corrosion control. These procedures and the Company's compliance with these procedures are annually reviewed by the Company and audited by the Commission.

Q8. Are DEO's O&M procedures compliant with federal and state requirements?

A8. Yes. DEO continually strives to comply fully with all applicable rules and regulations.

Q9. What are the Company's principal concerns with the operation of a gas pipeline system?

A9. Other than damage caused by third parties, the age and condition of the pipeline infrastructure.

Q10. Why is the age and condition of the infrastructure a principal concern?

A10. The age and condition of the infrastructure directly impact DEO's ability to provide continued safe and reliable service to our customers. As facilities age, leaks increase and it becomes more difficult and costly to maintain and operate those parts of the system.

Q11. Please describe DEO's programs related to leak monitoring and response.

A11. As part of our written standard operating procedures, the Company regularly surveys all parts of the system. The frequency of the surveys varies, pursuant to DOT regulations, based on the system classification. Distribution facilities have one-, three-, or five-year leak surveillance frequencies, depending on their type and location. For example, a bare steel distribution facility in a rural area would require a leak survey every three years. For transmission facilities (regardless of location) or distribution facilities in business districts, a survey is required one time a year.

The purpose of the survey is to identify indications and grades of any leaks on the system. During a survey route, Company personnel walk the lines with leak detection equipment. When gas is indicated, the employee will assess the existing or probable hazards to persons or properties by assigning the leak an initial grade. There are three grades that may be assigned:

- "Grade 1 leaks" represent an existing or probable hazard to persons or property. Such leaks require prompt and continuous action until conditions are no longer hazardous or until permanent repairs are made.

- "Grade 2 leaks" are recognized as being non-hazardous at the time of detection but justifying scheduled repair based on probable future hazard.
- "Grade 3 leaks" are non-hazardous at the time of detection and can be reasonably expected to remain non-hazardous.

Grade 1 leaks are reported immediately to the appropriate office for prompt remedial action in order to make the situation safe. All data related to surveys and any related remedial action is recorded in DEO's leak management system. This data is annually reviewed by the Commission for compliance with applicable federal regulations and Company operating procedures.

Q12. Does DEO track and evaluate its leak response effectiveness?

A12. Yes.

Q13. How?

A13. As part of its leak management system, DEO tracks all reported leak indications and repair activities. Each leak is issued a unique number. The timing and nature of the response to each leak is recorded.

Q14. What does the data show regarding DEO's leak response?

A14. DEO's goal is to repair Grade 1 leaks within 24 hours and Grade 2 leaks within 15 months. From 2003 to 2007, there were 23,840 Grade 1 leaks; 99.0% were repaired in 24 hours. From 2003 to 2007, there were 27,985 Grade 2 leaks. Of these, 67.52% were repaired within 6 months, 32.47% were repaired between 6 to 15 months—thus, 99.99% of these leaks were repaired in 15 months. (If a Grade 2 leak indication is not resolved within six months, DEO will reevaluate it within that period.)

Q15. Are there other ways that the Company becomes aware of leaks other than through the leak survey process?

A15. Yes. The primary way is from customers reporting gas odors through the Company's call-center or operations locations. Other Company personnel (like meter readers or customer service personnel) may also make odor reports. Odor reports from customers are regarded as emergencies and are recorded in our customer service system.

Q16. What does DEO do when it receives a gas odor report from a customer?

A16. DEO will issue an "INV Emergency" order and dispatch a field service employee to the location of the reported odor. DEO's customer service system will track the time of the report, the time of the response, and the nature of the response.

Q17. What does the data from the customer service system show regarding DEO's emergency response effectiveness?

A17. DEO's goal is to have its personnel at the location of the report in less than 60 minutes. In 2006, DEO had 35,713 calls. It responded to 83.4% within 45 minutes, and 97.3% of those calls within 60 minutes. In 2007, DEO had 35,532 calls. It responded to 83.2% within 45 minutes, and 96.9% of those calls within 60 minutes. For the two-year period, DEO responded to 97.1% of the calls within 60 minutes. In responding to these calls, DEO personnel will not leave the premises until the situation is made safe.

III. THE COMPOSITION OF AND CORROSION RISKS ON DEO'S PIPELINE SYSTEM

Q18. What is the principal cause of leaks on pipelines?

A18. Corrosion.

Q19. What is corrosion?

A19. Corrosion is commonly thought of as rust and is a process by which metals may deteriorate. It is an electrochemical reaction requiring four components to exist: an anode, a cathode, an electrolyte, and a path. For example, with respect to an unprotected pipeline, certain areas on the pipe will act as the anode, while other areas will serve as the cathode. Water in the soil surrounding the pipe is the electrolyte. The environment around the pipeline (such as sand or soil) serves as the path. The anodic sections of the pipe will corrode as DC current "jumps off" the pipe and takes the steel with it. Unless one of the four components changes or is removed, this process will continue, the corrosion (*i.e.*, the steel loss) will get wider and deeper, and leaks will become more severe and more numerous. Thus, as an unprotected pipe gets older, it will continue to corrode in its environment resulting in more leaks and potential safety and reliability concerns.

Q20. Has the Company traditionally attempted to prevent or delay corrosion?

A20. Yes. From the mid-1950s, the Company has used two methods: coated lines and cathodic protection. Beginning in the 1970s, for distribution systems operating under 100 pounds of pressure, DEO typically has installed plastic pipe.

Q21. What is a coated line?

A21. A coated pipeline has a protective layer installed on its entire outer surface to isolate it completely from the surrounding environment. There are many different types of coatings used in DEO's system, including coal tar enamel, thin film epoxy, wax, and a variety of plastic and tar-like materials. Coating eliminates the path for corrosion, and thus prevents it. In essence, a good coating is the first line of defense against corrosion.

Q22. What is cathodic protection?

A22. Cathodic protection is a process the industry uses to slow down or stop corrosion on bare steel. DEO uses both "sacrificial anodes" and "rectification" to manage the flow of current off of and onto DEO's buried pipelines. Sacrificial anodes, typically zinc or magnesium bars buried in the ground with the pipelines, are attached to the pipelines and serve as the site of deterioration caused by the flow of the current while the bare steel areas of the pipeline are protected. Rectification is a similar process on a larger scale.

Q23. *Prior to use of plastic lines, what types of mains were employed by DEO?*

A23. Cast iron mains and wrought iron mains were used beginning around the turn of the 20th century until the 1930s, predominantly between 1900 and 1929. These mains had limitations. They could not be used for high-pressure applications and were susceptible to certain types of operational failure. Installation of these materials was phased out by the 1930s. Bare steel mains were installed as early as the late 19th century until the early 1960s for the most part. Beginning in the mid-1950s, coated steel lines came into predominant use, with increasing levels of cathodic protection. Installation of plastic lines began in the 1970s.

Q24. Was the installation of each type of line in accordance with industry standards at the time of installation?

A24. Yes.

Q25. Does DEO have records regarding the vintage, material and coating of its pipelines?

A25. Yes. DEO has a computer-based Geographic Information System ("GIS"). The GIS was created in the mid-1990s, by converting DEO's existing manual records. These records included detailed maps, contemporaneously created construction notes and records, and

line diagrams showing the history of work on particular facilities. Some of these records were compiled by companies later acquired by DEO or by companies whose assets DEO acquired. All of these records were kept and made in the regular course of these businesses.

Q26. Please describe the composition of DEO's pipeline system as of 2007.

A26. As of 2007, DEO had a total of 19,584 miles of distribution main. Of this, 3,907 miles, or 20%, is bare steel; 35 miles is cast iron; 78 miles is wrought iron; and 1 mile is copper. There are 9,875 miles of coated steel, and 5,213 miles of plastic. The remaining distribution system consists of fiberglass and steel X-Trube.

DEO also has 35 miles of bare steel transmission lines. The rest of the transmission system is coated steel.

Q27. How does the amount of bare steel lines in DEO's system compare to the amount of bare steel lines in other companies' systems?

A27. As of 2006, DEO had more bare steel mileage than all but a few gas companies.

Q28. At what rate is DEO currently replacing its bare steel, cast iron, and wrought iron mains?

A28. In the last six years, DEO on average has replaced approximately 40 miles of bare steel, cast iron and wrought iron mains per year.

Q29. How does this replacement rate compare to the rates experienced by other companies?

A29. Based on information available in Commission dockets, I understand that Columbia Gas of Ohio replaced 50.6 miles of its bare steel mains in 2006, and that Vectren Energy Delivery of Ohio replaced an average of 10.5 miles of its bare steel and cast iron lines over the last five years.

Q30. At DEO's current rate of approximately 40 miles per year, how long will it take to replace all bare steel, cast iron, and wrought iron pipelines.

A30. The last mile of pipeline would be replaced in about 2097, approximately 89 years from now.

Q31. Assuming you replaced lines at DEO's current replacement rate, beginning from oldest to youngest, how old would the last mile of pipeline be at the time of replacement?

A31. Around 132 years old.

IV. ISSUES PRESENTED BY BARE STEEL AND OTHER AGING LINES

Q32. Which types of lines is DEO proposing to replace under the PIR program?

A32. DEO is proposing to replace bare steel, cast iron, wrought iron and copper lines.

Q33. Do cast iron and wrought iron lines pose any operational issues?

A33. Yes. Cast iron lines are susceptible to a form of corrosion called "graphitization." As cast iron corrodes, it retains the original shape of the pipe without pitting, which makes the corrosion hard to visually detect. The problem with corroded cast iron pipe is that the material can become porous and mechanically weakened due to graphitization, and this makes the pipe brittle and susceptible to cracking failure. The method by which cast iron mains are joined also presents an increased risk of leakage. These mains are joined using bell and spigot joints that were caulked during original construction. The caulking dries out over time, and as it does the joints become more likely to leak. The problems with cast iron cracking and joint leakage are more pronounced in areas with construction activity, heavy traffic, soil subsidence, and soil movement due to freezing and thawing. Wrought iron lines present similar issues as cast iron lines; although they are less likely to crack, they are more likely to corrode and pit similar to steel pipe. Both kinds of

lines—whether from leaking joints, corrosion, or cracking—are more likely to create operational issues than cathodically protected coated steel lines and plastic lines.

Q34. What are "bare steel" pipelines?

A34. As the name implies, bare steel pipelines are steel pipelines that are not coated.

Q35. Do bare steel mains present any operational issues?

A35. Yes. The primary operational issue presented by bare steel lines is their susceptibility to corrosion. Bare steel lines, because of corrosion, are more likely to leak than cathodically protected coated steel lines and plastic lines.

Q36. Has DEO performed any studies that show that its bare steel lines are more prone to leak than other lines?

A36. Yes. Under my supervision, DEO, conducted a study of the Company's "Western" operating area in Cleveland (specifically, an area including the western portion of the City of Cleveland, Lakewood, North Olmsted, Fairview Park, Rocky River, Brooklyn, and Brookpark), constituting approximately 9% of DEO's total operating area. The study team took five years of leak reports from the leak management system, from which the location of each leak was determined. Using the GIS mapping system, the team cross-referenced and plotted the location of each leak on the specific facility involved and determined the facility's vintage and material. This study showed that bare steel low-pressure pipe, although it made up only 25% of the total pipeline in the area, was responsible for 91% of the total mainline leaks from 2002 to 2006.

Q37. How does this sample of DEO's experience compare with the experience of other companies?

A37. DEO's experience appears to be similar to that of other companies. Based on my review of materials filed before the Commission, I understand that Columbia Gas of Ohio experienced 74% of its leaks on its non-cathodically protected bare and coated steel mains, which constituted only 19% of its system. Vectren Energy Delivery of Ohio reported similar numbers. Sixty percent of its leaks occurred on bare steel and cast iron mains, which constituted only 14% of its system.

V. THE PIR PROGRAM

Q38. Please summarize DEO's proposed program for pipeline infrastructure replacement.

A38. Over the next 25 years, the Company is proposing to replace substantially all of the bare-steel pipe, cast-iron pipe, wrought-iron pipe and copper pipe in its system. DEO also plans to replace approximately 515,000 main-to-curb connections to which curb-to-meter service lines are connected, and is also proposing to assume ownership of curb-to-meter service lines as they are installed, replaced, tied in, or repaired.

Q39. Has DEO projected any cost figures for the PIR program?

A39. Yes. As set forth in the PIR Application, DEO estimates that the pipeline replacement portion of the program will cost approximately $1,656,000,000 in 2007 dollars, with the associated main-to-curb replacement expected to cost approximately $490,000,000. The replacement cost of service lines directly associated with the bare steel and cast- and wrought-iron pipeline infrastructure will be $516,000,000, also in 2007 dollars. There will also be costs associated with the replacement and repair of existing service lines on

other parts of DEO's system, as well as the installation of service lines for new construction; DEO has not projected these costs due to their unknown magnitude.

Q40. *Please describe how DEO developed these projected cost figures.*

A40. DEO developed the projected cost using a number of factors. For the pipeline replacement portion of the program, these factors included estimated miles of target pipeline to be replaced; pipeline attributes such as pressure, size and material; and the historic replacement costs. The calculation was based on the target mileage times the weighted average cost per mile. For the main-to-curb replacement portion of the program, DEO also considered a number of factors, such as the estimated miles of target pipeline; the estimated main-to-curb density per mile of pipe; a double mainline adjustment factor to reflect areas where mainlines are installed on both sides of a street; and historic replacement costs. The calculation was based on the target mileage times a density factor equal to the number of main-to-curbs per mile (including an adjustment to reflect areas with double mainlines) times an average cost per main-to-curb. For the services portion of the program, DEO considered the number of services, average service length, replacement pipe attributes, and historic replacement costs. DEO assumed one service line per main-to-curb. The calculation used the average cost per service times the number of services.

Q41. How did DEO determine that a 25-year time frame was appropriate?

A41. DEO considered different implementation durations for the PIR program, but concluded that 25 years was the shortest reasonable period over which the proposed scope of work could be effectively completed. The scope of the pipeline-replacement project, along with the main-to-curb and service-line work, will require a significant increase in

resources, including labor (both DEO and contractor design, construction and inspection personnel), materials, and capital. The 25-year timeframe balances the risks and resource requirements, while providing DEO with the proper time to plan, design, communicate with customers, coordinate with governmental entities, and execute the project.

Q42. Does the PIR program benefit customers?

A42. Yes. Foremost, the PIR program provides continued assurance of a safe and reliable natural gas distribution system. The program is designed to replace those lines that currently are (and will continue to be) the largest contributor of leaks on our system and which create the greatest concerns from a reliability and safety perspective.

DEO also anticipates O&M savings comparable to those reported by other companies from reduced incidence in leak repair expenses, and DEO will credit such savings to customers. The use of plastic mains will result in lower operating expenses, because these lines do not require cathodic protection nor corrosion-related leak repairs. This potentially significant reduction in leak-repair expense on DEO's system is supported by the study of the Company's western operating area in Cleveland, discussed above.

A reduction in leaks should also result in a reduction of lost and unaccounted-for gas. Although the specific reductions, if any, cannot be quantified presently, if such reductions occur, the savings will be passed on to customers.

Further, leak repairs and emergency replacements are inherently reactionary and create considerable confusion and disruptions for the customer and general public. Planned and scheduled pipeline infrastructure replacement work, as contemplated under the PIR program, will result in less customer and traffic disruptions and better

coordination with local municipalities and the Ohio Department of Transportation.

As part of DEO's Application in this case, DEO also proposes to take ownership of customer service lines as they are installed, replaced, tied in, or repaired. This change will result in a significant cost savings and other benefits for the customer. Currently, the DEO customer directly incurs the cost, coordination, and inconvenience of a service line replacement, if required. Under the PIR Application, DEO will assume ownership, control, and the cost of the service line replacement at the time a service line problem or leak is identified.

Q43. Does the PIR program benefit communities?

A43. Yes. Communities benefit under the PIR program because DEO will be able to plan and coordinate the timing of replacement work proactively with the affected communities. This will enable any disruptions associated with replacement work (e.g., of traffic or community events) to be minimized. Similarly, communities can schedule repaving work, or other major infrastructure improvements, to occur after DEO has done its improvements. If DEO's replacement program is primarily reactive, however, the potential for disruption is much greater.

Q44. Does the PIR program benefit the Company?

A44. Yes. The ability to have a proactive, forward-looking program allows DEO to develop an extended, longer-term system improvement plan. In essence, it would allow DEO to extend its horizon for planning and project prioritization. The ability to identify larger scale projects and replacement work will achieve economies of scale, including contract services and material acquisition. Also, by proactively addressing leak-prone pipelines, DEO will potentially reduce the cost of its leak-response and emergency-response

activities. By making pipeline-replacement work more proactive and predictable, DEO will be better able to coordinate that work with other ongoing infrastructure investments, such as other pipeline replacements, pipeline relocations and system improvements, and other associated capital expenditures.

VI. CONCLUSION

Q45. Does this conclude your testimony?

A45. Yes.