

BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Duke )  
Energy Ohio, Inc., for Approval to Change ) Case No. 16-387-GA-AAM  
Accounting Methods Associated with its )  
Integrity Management Program. )

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ANNUAL REPORT OF DUKE ENERGY OHIO, INC.

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Comes now Duke Energy Ohio, Inc., (Duke Energy Ohio or Company) and states as follows:

1. Duke Energy Ohio is an Ohio corporation engaged in the business of providing natural gas service in southwest Ohio and, as such, is a public utility as defined by R.C. 4905.02 and 4905.03.

2. On January 4, 2017, the Public Utilities Commission of Ohio (Commission) issued an Opinion and Order in the above-captioned proceeding, approving the Company's application to defer expenses related to the implementation of its gas distribution integrity management program (IMP) developed in responses to federal regulations.<sup>1</sup>

3. The IMP approved in the Order comprises six initiatives:
- a. Enhancing risk assessment and analysis
  - b. Inline inspection and pressure testing techniques
  - c. Maximum allowable operating pressure verification
  - d. Improving records
  - e. Damage prevention
  - f. Training

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<sup>1</sup> *In the Matter of the Application of Duke Energy Ohio, Inc., for Approval to Change Accounting Methods Associated with its Integrity Management Program*, Opinion and Order (January 4, 2017)(Order).

4. The Company's application specifically requested authority to defer its income statement recognition of the IMP costs incurred after December 31, 2015, with the annual increase not to exceed \$4 million per calendar year. In addition, the Company requested authority to recover carrying charges on the deferred balance.
5. Duke Energy Ohio and Staff of the Commission entered into a stipulation (Stipulation) that, *inter alia*, proposed a process to be followed with regard to the proposed deferral authority.<sup>2</sup> One of the steps in said process provided that:

By June 1 of each year, Duke shall file an annual report detailing the deferred expenses, external auditor findings, baseline performance levels for each safety initiative, safety performance improvements compared to baselines, results of ongoing and future investigations, any mid-term adjustments, and efforts towards identifying efficiencies and implementing cost-savings measures.

6. For purposes of this Annual Report, the Company provides the following attachments:

Attachment A:	2016 IMP-Related Deferrals
Attachment B:	Audit Report prepared by Deloitte & Touche LLP
Attachment C:	2016 Programmatic Review

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<sup>2</sup> The Commission specifically approved the Stipulation in the Order, at ¶¶ 15, 23.

WHEREFORE, Duke Energy Ohio respectfully provides this annual report for the commission's review and requests that all 2016 IMP-related expenses be deferred, together with associated carrying costs.

Respectfully submitted,  
DUKE ENERGY OHIO, INC.

/s/ Jeanne W. Kingery

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## ATTACHMENT A

Line No.	Category	Project Name	Project Codes	Total 2016 Cost
1	<b>IT (RISK ASSESSMENT &amp; ANALYSIS)</b>	Gas Smart Phase 1 - CP Manager Enhancements	CPMANGENH	\$70,531
2		Gas Transmission Lines - Risk Analysis Software	RISKANSFT	\$211,209
3		Gas Fusion Document Classes	GFUSION	\$68,805
4		Gas Smart Phase 5 - Leak Survey / Line Patrol	GSMART5	\$332,497
5		MAOP Calculator	MAOPFTWR	\$324,360
6	<b>ILI &amp; PRESSURE TEST / MAOP VERIFICATION</b>			
7				
8		Pressure Test	PRESTEST	\$271
9	<b>RECORDS</b>	Scanning & Indexing Project	SCANIDX15	\$1,017,707
10		MAOP Verification/MAOP Calculator Transmission	MAOPCON	\$58,789
11		CP Manager - Data Enhancement	CPMANCON	\$477,992
12	<b>DAMAGE PREVENTION</b>	Untonable Investigations	UNTININV	\$2,984
13		Untonable Corrective Maintenance on Mains	UNTCORMIN	\$94,319
14		Radio Adds / Mailings / Training Videos	IMEXCDAM	\$7,130
15		Untonable Corrective Maintenance on Services	UNTCORSV	\$26,646
16	<b>TRAINING</b>			
17		Training Curriculum Updates	IMTRAIN	\$65,240
18		<b>TOTALS =</b>		<b>\$2,758,478</b>
				<b>\$1,007,401</b>
				<b>\$271</b>
				<b>\$1,554,489</b>
				<b>\$131,078</b>
				<b>\$65,240</b>
				<b>\$2,758,478</b>

## ATTACHMENT B

## INDEPENDENT ACCOUNTANTS' REPORT ON APPLYING AGREED-UPON PROCEDURES

To the Board of Directors of  
Duke Energy Ohio, Inc.  
Charlotte, North Carolina

We have performed the procedures enumerated below, which were agreed to by Duke Energy Ohio, Inc. (the "Company") and provided to the Public Utilities Commission of Ohio (the "PUCO"), on the Company's compliance with the determination of Gas Integrity Management (GIM) deferral costs for the year ended December 31, 2016, as described in PUCO Case No. 16-387-GA-AAM (the "Order"). Management of the Company is responsible for the Company's compliance with the Order. The sufficiency of these procedures is solely the responsibility of the parties specified in this report. Consequently, we make no representation regarding the sufficiency of the procedures enumerated below either for the purpose for which this report has been requested or for any other purpose.

We performed the following procedures in relation to the GIM deferral costs from January 1, 2016 through December 31, 2016.

1. Obtained from Company management and proved the mathematical accuracy of the Integrity Management Deferrals schedule (the "schedule") for the period from January 1, 2016 through December 31, 2016 related to GIM costs, as outlined within the Order. No exceptions were found as a result of applying the procedure.
2. Compared the monthly GIM costs from the schedule obtained in step 1 above to the general ledger, and determined the amounts were in agreement.
3. Randomly selected three months from the period January 1, 2016 through December 31, 2016. For each selected month, obtained a detail of all GIM costs deferred for that month, and compared the total of the detail to the monthly total for the selected month in the schedule obtained in step 1 above, and determined the amounts were in agreement.
4. Randomly selected 25 items from the selected details of GIM costs obtained in step 3 above. For each selection, agreed the selected GIM expense to the underlying invoice as provided by management. We also compared the category and nature of the expense to the guidelines established within the Order. No exceptions were found as a result of applying the procedures.

This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. We were not engaged to and did not conduct an examination or review, the objective of which would be the expression of an opinion or conclusion, respectively, on the Company's compliance with the Order. Accordingly, we do not express such an opinion or conclusion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the information and use of the Board of Directors and management of the Company and the PUCO, and is not intended to be and should not be used by anyone other than the specified parties.

*DELOITTE & TOUCHE LLP*

May 26, 2017

## ATTACHMENT C

## **Duke Energy Ohio 2016 IMP Programmatic Review**

This report presents the Duke Energy Ohio, Inc., (Duke Energy Ohio or Company) Integrity Management Operation and Maintenance (O&M) expenditures during 2016, which expenditures were permitted for deferral by the Public Utilities Commission of Ohio (Commission) through the Opinion and Order(Order) in Case No. 16-387-GA-AAM, dated January 4, 2107. The Order permitted a total deferred spend of \$4 million per year for five consecutive years for contracted work. The Company's projects got off to a late start in 2016 which lead to only \$2,758,478 of the allowed \$4 million being spent (see Table 1, below). It is projected that all the \$4 million will be spent in 2017.

The deferred O&M spend is tracked by financial project codes under five (5) categories:<sup>3</sup>

1. Risk Assessment & Analysis (IT Projects)
2. MAOP Verification (ILI & Strength Tests)
3. Records
4. Damage Prevention
5. Training

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<sup>3</sup> The Order broke the categories down into six initiatives. For simplicity's sake, two of those initiatives (inline inspection and pressure testing techniques and maximum allowable operating pressure verification) have been combined in the record-keeping that is memorialized in this Annual Report.

**Table 1 – Summary of DEO 2016 O&M Deferral Costs**

Category	Project Name	Project Codes	Total 2016 Cost	
<b>IT (RISK ASSESSMENT &amp; ANALYSIS)</b>	Gas Smart Phase 1 - CP Manager Enhancements	CPMANGENH	\$70,531	\$1,007,401
	Gas Transmission Lines - Risk Analysis Software	RISKANSFT	\$211,209	
	Gas Fusion Document Classes	GFUSION	\$68,805	
	Gas Smart Phase 5 - Leak Survey / Line Patrol	GSMART5	\$332,497	
	MAOP Calculator	MAOPSFTWR	\$324,360	
<b>MAOP VERIFICATION (ILI &amp; STRENGTH TESTS)</b>				\$271
	Pressure Test	PRESTEST	\$271	
<b>RECORDS</b>	Scanning & Indexing Project	SCANIDX15	\$1,017,707	\$1,554,489
	MAOP Verification/MAOP Calculator Transmission	MAOPCON	\$58,789	
	CP Manager - Data Enhancement	CPMANCON	\$477,992	
<b>DAMAGE PREVENTION</b>	Untenable Investigations	UNTINV	\$2,984	\$131,078
	Untenable Corrective Maintenance on Mains	UNTNCORM N	\$94,319	
	Radio Adds / Mailings / Training Videos	IMEXCDAM	\$7,130	
	Untenable Corrective Maintenance on Services	UNTNCORSV	\$26,646	
<b>TRAINING</b>				\$65,240
	Training Curriculum Updates	IMTRAIN	\$65,240	
<b>TOTALS =</b>			<b>\$2,758,478</b>	<b>\$2,758,478</b>

It should be noted that some projects include work for Duke Energy Kentucky, Inc., (DEK) and KO Transmission Company (KO). For projects that included DEK and Duke Energy Ohio, the invoices were split based on the number of customers in each state (resulting in a split of approximately 80% Duke Energy Ohio / 20% DEK). For projects that included all three corporations (Duke Energy Ohio, DEK, and KO), the invoices were split based on the mileage of main (48% Duke Energy Ohio, 35% KO, and 17% DEK).

The discussion on the following pages outlines the progress of the projects tracked under the five deferral categories.

## 1. Risk Assessment & Analysis (IT Projects)

### **Project Code CPMANGENH: CP Manager Enhancements (\$70,531)**

The CP (Cathodic Protection) Manager Enhancement project improved records accuracy by integrating all CP Circuits into the Duke Energy Ohio GIS mapping system (GE Smallworld). By using Smallworld as a single source for system records, duplicate data entry into the Pipeline Compliance System (PCS) was eliminated. Smallworld is the system of record for pipelines, corrosion circuits, and read locations. PCS is the system of record for field generated CP reads. The project merged the two systems into one business process. This improved data quality and vastly improved data availability and accessibility.

### **Project Code RISKANSFT: Gas Transmission Lines – Risk Analysis Software (\$211,209)**

TRASCUE by GEOMAGIC is a transmission line Risk Analysis Software that was implemented to replace an outdated and difficult to maintain risk model. This new software application allows pipeline integrity risk analyses in line with PHMSA standards and will help us better prioritize pipeline threats and risks that we need to address. It will also provide the platform to allow us to move from a relative model to a more complex probability-based model in the future. Trascue has the capability to perform “what-if” scenario modeling that would analyze how dollars spent would reduce risk. Business efficiency will improve by eliminating the need to import and manipulate an excel spreadsheet for transmission line information. The solution will take advantage of Geospatial Analysis (GSA) to add a spatial analysis capability for the data along with enhanced reporting.

### **Project Code GFUSION: Gas Fusion Document Classes (\$68,805)**

The Gas Fusion Document Class project enhanced Gas Operations’ Fusion Document Class structure and the overall application/platform. The goal of the project is to ensure that records

are traceable, verifiable, and complete, as well as to provide field personnel with easy access to records.

Before the project, Fusion was essentially a flat, single-level structure that contained 10 Document Classes and could only support a limited number of business groups and processes within Gas Operations. After the project was deployed, Fusion became a three-tiered structure, with 12 Document Classes, 47 Document Types, and 260 Document Subtypes. This reorganization of the classes and application structure better provides the means to manage legacy records in various stages, making them easier to look up for quicker customer response, while providing for expansion to meet the growing needs of Integrity Management and new regulations.

**Project Code GSMART5: Leak Survey / Line Patrol (\$332,497)**

This project replaced a manual tracking method for leak surveys and line patrols that used a Microsoft Access database and paper gas maps with the Inspection & Survey module for myWorld, developed by Ubisense. myWorld is tied to our GIS system, Smallworld. Leak survey/line patrol orders are automatically generated from myWorld and sent to handheld GPS-enabled devices that “breadcrumb track” the work as the surveys are completed. These devices will then download the data to a central server database. The data will be made available in the office through dashboards for reporting, monitoring, and editing by various participants in the business. The solution is being tested during 2017 and is currently expected to be deployed by Q4 of 2017. Once implemented, the Inspection & Survey solution will increase data integrity and accuracy related to Leak Survey and Line Patrol inspections.

**Project Code MAOPSFTWR: MAOP Calculator Release 1 (\$324,360)**

Release 1 of the MAOP Calculator project was completed in 2016. This work included implementation of the MAOP Calculator and Pipeline Integrity Data Manager (PIDM) produced by General Electric (GE). PIDM exports data from GE's GTO module of Smallworld for use in the MAOP calculator. Other work included data sync fixes between Smallworld's GDO module to its GTO module, minimal cleanup of the GDO catalog, and creation of a report export from the calculator to FileNet (document archive system). Remaining work includes creating a web application that replaces the existing Microsoft Access MAOP and SR databases, creating a SQL server that centrally houses MAOP data for use in other applications, and developing reporting tools.

## **2. MAOP VERIFICATION**

Projects under this category include in-line inspections of pipelines and strength testing of lines where records are either incomplete or missing. No projects in Ohio were completed under this category in 2016.

### 3. RECORDS

#### **Project Code SCANIDX15: Scanning & Indexing (\$1,017,707)**

Money was spent on contingent labor and vendor services to:

- Digitize / Scan paper records, reel & frame records, microfiche records,
- Load digitized / scanned records into Document Management System (DMS) known as Fusion/FileNet
- Add Metadata to digitized / scanned records,
- Integrate historical paper asset data,
- Validate System of Record attributes using verifiable asset data,
- Populate System of Record attributes using verifiable asset data,
- Establish process for new pipeline asset records and data

Metrics

Pages Scanned = 433,678

Files Indexed = 942,262

Index Count = 4,658,094

Average Index per record = 4.9

Records Uploaded to DMS = 230,675

#### **Project Code MAOPCON: MAOP Verification (\$58,789)**

Contingent personnel were used to validate and update (where necessary) features and fields in our GIS system (Smallworld) that are required for accurately determining MAOP of pipeline segments. This work included adding fittings that were not previously placed in the GIS system

and filling in missing material specifications for in-service assets. Contingent staff worked under the guidance of an Integrity Management Engineer.

**Project Code CPMANCON: CP Manager - Data Enhancement (\$477,992)**

Contingent staff were used to build circuits in our GIS system to model insulated sections of steel main and services, and to add cathodic test stations at each insulated joint. This new functionality will provide our Corrosion Protection program the ability to monitor corrosion program and reads with better technology.

Metrics

More than 10,000 Circuits were built in GIS to support new technology initiative. The circuit build is 100% complete. The field verification and cleanup is 30% complete.

## 4. DAMAGE PREVENTION

### **Project Code UNTNINV: Untoneable Investigations (\$2,984)**

This project consisted of a third-party vendor (Heath Consultants Inc.) checking the reported untoneable/untraceable tickets submitted by our 811 locate company, USIC. Approximately, 7,794 of the 259,451 gas facility locate tickets (3%) were coded by USIC as untoneable /untraceable. Of the 7,794 untoneable /untraceable tickets submitted, Heath found that approximately 10% of them could actually be located. The majority of these tickets were submitted on plastic main and services.

### **Project Code UNTNCORMN: Untoneable Corrective Maintenance on Mains (\$94,319)**

This project consists of work performed by third-party vendors to make plastic mains traceable by repairing tracer wire or by placing locatable marker balls.

### **Project Code UNTNCORSV: Untoneable Corrective Maintenance on Services (\$26,646)**

This project consists of work performed by third-party vendors to make plastic services traceable by repairing tracer wire or by placing locatable marker balls. Most 2016 work was performed on digging at curb-valve boxes to install test wires on steel services.

### **Project Code IMEXCDAM: Radio Ads / Mailings / Training Videos (\$7,130)**

This project consists of work performed by third-party vendors to increase Public Awareness of Duke Energy's gas distribution system through radio ads, mailings, and training videos.

## 5. TRAINING

### **Project Code IMTRAIN: Training Curriculum Updates (\$65,240)**

Contract employees were used to update the training curriculum for Learning Services. Improvements were made to the core curriculum for craft employees to increase focus on human performance fundamentals and hands-on evaluations. Improvements were also made to the training facility. Learning Services teaches classes for Mechanics, Mechanic Operators, Inspecting Mechanics, Meter Specialists, and Service Mechanics.