

BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO

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In The Matter of the Application of)	
Duke Energy Ohio, Inc. for an)	Case No. 07-589-GA-AIR
Increase in Gas Rates)	
)	
In the Matter of the Application of)	
Duke Energy Ohio, Inc. for Approval)	Case No. 07-590-GA-ALT
of an Alternative Rate Plan for its)	
Gas Distribution Service)	
)	
In the Matter of the Application of)	
Duke Energy Ohio, Inc. for Approval)	Case No. 07-591-GA-AAM
to Change Accounting Methods)	

REPORT OF DUKE ENERGY OHIO, INC.
TO THE PUBLIC UTILITIES COMMISSION OF OHIO
REGARDING DEPLOYMENT OF SMART GRID TECHNOLOGY

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I. INTRODUCTION

On June 18, 2007, Duke Energy Ohio (DE-Ohio) notified the Commission of its intent to file an application for a general gas rate increase, and an application for an alternative rate plan for its gas distribution service.¹ DE-Ohio applied for the increase and filed the standard filing requirements on July 18, 2007.² The application was based on a test year ending December 31, 2007, and a date certain of March 31, 2007.³ DE-Ohio filed direct testimony supporting the applications and the Commission accepted the applications for filing.⁴

In its Application, DE-Ohio notified the Commission of its proposed Rider AU – Advanced Utility which is a rider designed to recover costs associated with DE-Ohio’s Utility of the Future (SmartGrid) Initiative.

The intervening Parties in this matter entered into a Stipulation on February 20, 2008, (Stipulation) resolving all issues in the case except the issue of rate design.⁵ The Parties filed additional testimony⁶ and the case proceeded to hearing on March 5 and 6, 2008.

¹ *In re DE-Ohio Gas Rate Case*, Case No. 07-589-GA-AIR, *et al.* (Pre-filing Notice) (June 18, 2007).

² *In re DE-Ohio Gas Rate Case*, Case No. 07-589-GA-AIR, *et al.* (Application and Standard Filing Requirements) (July 18, 2007).

³ *In re DE-Ohio Gas Rate Case*, Case No. 07-589-GA-AIR, *et al.* (Entry) (July 11, 2007).

⁴ *In re DE-Ohio Gas Rate Case*, Case No. 07-589-GA-AIR, *et al.* (Entry) (September 5, 2007).

⁵ *In re DE-Ohio Gas Rate Case*, Case No. 07-589-GA-AIR, *et al.* (Stipulation and Recommendation) (February 20, 2008).

⁶ *In re DE-Ohio Gas Rate Case*, Case No. 07-589-GA-AIR, *et al.* (Pre-filed Testimony of Staff witnesses Stephen E. Puican and J. Edward Hess) (February 28, 2008); (Settlement Supporting Testimony of DE-Ohio witness Paul G. Smith) (February 28, 2008); and (Rebuttal Testimony of OCC witnesses Wilson Gonzalez and Anthony J. Yankel) (March 5, 2008).

The Commission issued its Opinion and Order in this case on May 28, 2008, and after detailing the various provisions of the Stipulation, found it to be the product of serious bargaining among the parties and a benefit to ratepayers, advanced the public interest and did not violate any regulatory principles. The Commission adopted the Stipulation in its entirety.

With regard to the Rider AU provisions in the Stipulation, the Commission recognized the commitment made by DE-Ohio and accepted the Stipulation without amendment. DE-Ohio submits this report, fulfilling its commitment as set forth in the Stipulation between the Parties and in response to the Commission's Order in this case.

II. RIDER AU – ADVANCED UTILITY – UTILITY OF THE FUTURE (SMARTGRID)

SmartGrid is DE-Ohio's project to transform gas and electric transmission and distribution systems into an integrated, digital network to produce operating efficiencies, enhance customer and utility information and communications, and to create a platform which will allow synergies with emerging technologies. The most basic component of SmartGrid is Advanced Metering Infrastructure (AMI). In very simple terms, AMI is a metering and communication system that resides with the customer's meter and records data to be transmitted to the company over an advanced communications network to a data management system. SmartGrid, however, is much more than this. It is an advanced communications infrastructure, or platform, much like the internet, which will enable development of many new technologies to increase efficiency, conservation and many other as yet undeveloped applications relevant to energy delivery. Among applications which are envisioned in the near term are dynamic pricing, distribution automation, microgrids, distributed resource management and electric vehicle integration.

III. RIDER AU - ADVANCED UTILITY RIDER

The Stipulation entered in this case provided for a placeholder for a new tracking mechanism, known as Advanced Utility Rider AU. This rider was designed to allow DE-Ohio to receive timely cost recovery for deploying a SmartGrid system, that will provide numerous benefits, including reduced metering costs. The SmartGrid technology presently being deployed in DE-Ohio's service territory will benefit gas and dual gas/electric customers. Therefore, additional information regarding DE-Ohio's SmartGrid is provided in testimony and exhibits relevant to Case No. 08-709-EL-AIR, the DE-Ohio distribution rate case, and DE-Ohio's Electric Security Plan as well. The complete deployment of SmartGrid is economically viable only as a combination project for both the gas and electric divisions of DE-Ohio's business. Therefore, implementation of Rider AU and SmartGrid is conditional upon acceptance by the Commission of substantially the same application in DE-Ohio's electric distribution case and/or Electric Security Plan to be filed.

IV. THE SMARTGRID DEPLOYMENT AND COST BENEFIT ANALYSIS

DE-Ohio witness, Todd W. Arnold, Senior Vice President, Smart Grid and Customer Systems, will discuss the status of the SmartGrid deployment and some of the customer benefits of the program. DE-Ohio Witness Dr. Richard G. Stevie provides an economic analysis that quantifies one aspect of societal benefits which are incorporated into DE-Ohio witness Christopher D. Kiergan's report. Other details of the SmartGrid initiative were provided by DE-Ohio witnesses, Matthew W. Smith and David W. Mohler in their prefiled direct testimony in this case. Mr. Arnold is providing testimony with this report to explain the current deployment schedule and status of the program.

DE-Ohio also provides herein the testimony of DE-Ohio witness William D. Wathen Jr. to explain the revenue requirement calculation for 2009 through 2013. Mr. Wathen's testimony includes an attachment showing these calculations, Third Supplemental Attachment WDW-1. The revenue requirement computed in these attachments is the basis for determining that rates for the Company's proposed Advanced Utility Rider ("Rider AU").

DE-Ohio provides the testimony and supporting attachments of Christopher D. Kiergan, of KEMA Consulting Services, Inc., to provide the initial and preliminary analysis of potential costs and benefits to ratepayers and to society in general as a result of the deployment of SmartGrid technology. Mr. Kiergan is an Executive Consultant with KEMA, Inc. Established in 1927, KEMA is an international energy solutions firm providing technical and management consulting, systems integration and training services to more than 500 electric industry clients in 70 countries.

DE-Ohio witness Kiergan refers in his testimony to his own modeling of costs and benefits related to SmartGrid as well as the study commissioned by the Ohio electric utilities. The study, undertaken by the Electric Power Research Institute (EPRI), provides a methodology for considering additional societal benefits which must be taken into account in evaluating SmartGrid. The study is approximately 150 pages in length and, therefore, we will not provide a copy of the study with this filing. Instead, the study can be obtained at the following website:

http://my.epri.com/portal/server.pt?Product_id=000000000001017006

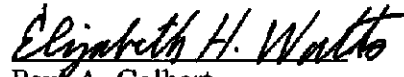
DE-Ohio will make this study available in hard copy to anyone who should request it. EPRI presented this study to the Commission Staff on July 9, 2008.

Finally, DE-Ohio will present the testimony of DE-Ohio Witness Richard G. Stevie to discuss an additional methodology for valuing one aspect of societal benefits of SmartGrid. This methodology, which is grounded in well accepted economic theory, measures the indirect economic impacts which arise in the form an increase in economic activity from the direct spending attributable to SmartGrid deployment.

V. CONCLUSION

NOW THEREFORE, DE-Ohio respectfully urges the Commission to approve the deployment and cost recovery in this case with the understanding that DE-Ohio will only proceed with Rider-AU conditioned upon acceptance of the concomitant rider in DE-Ohio's electric distribution rate case, Case No. 08-709-EL-AIR.

Respectfully submitted,



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